

Region I EMS Advisory Council Meeting

October 17, 2019

The Region I EMS Advisory Council Meeting was held Oct 17, at 7:00 p.m. at Western Maryland Health System. Members in attendance included: Elizabeth Wooster, Dr. Janelle Martin, Jill Spiker, Jeff Hinebaugh, Chris Biggs, Wayne Tiemersma, Alison Robinson, Diane Lee, Doug Beitzel, Kathy Condor, Rick DeVore, Al Ward, Bill Hardy, and Dwayne Kitis.

Before the meeting officially started, the group held a short retirement celebration for Bill Hardy.

The meeting was then called to order by Wayne Tiemersma at 7:15 p.m.

Approval of July 18, 2019 Minutes

The minutes were reviewed and accepted as written.

Welcome Guests

Guests attending were Vince Pyle, Cumberland Fire Department; Paul Harman, NGRS; Jim Pyles, Allegany County Emergency Services; Dr. Ted Delbridge, MIEMSS Executive Director; and Jim Brown, MIEMSS.

President's Report – Wayne Tiemersma

- Elections are coming up at the next SEMSAC meeting and the VAIP draft will be voted on also.

Committee Reports

Prehospital Care System

- Guidance for the security requirement for the storage of Controlled Dangerous Substances was discussed. Please see the attached letter from Dr. Timothy Chizmar, State EMS Medical Director.
 - Garrett County has taken morphine off trucks.
- There are some modern issues with Lifepaks; Garrett County is looking at using WiFi enabled modems; UPMC Western Maryland has a phone app that might be a possibility. It is multifunctional and can transmit EKGs to command center.
- Discussion was also held on a Revised Hospital Reference Guide

Quality Improvement – No report

Bylaws/Membership

- The position of Secretary for the Council needed to be filled; nominations were made and voted on. Alison Robinson was elected as the new Secretary. At the beginning of next year Elizabeth Wooster will move up to the position of President and Doug Beitzel will be the Vice President.
- Voting on the full Council membership will be held at the next meeting of the Council.

ALS Advisory Committee / Garrett College – Doug Beitzel

- Doug gave an update on ALS training in the Region and a list of upcoming ALS classes, please see attachment.

Region I Emergency Services Education Council, Inc. – Dwayne Kitis

- The Miltenberger Planning Committee is still working on getting the schedule finalized for the 2020 seminar.

Garrett County Activities

Garrett Regional Medical Center – Jeff Hinebaugh

- Due to the installation of a new CT scanner, the hospital now has a mobile scanner in a trailer parked in the ambulance bay for about 5-6 weeks. This will necessitate ambulances off-loading and moving so others can get in.

Garrett County Emergency Communications

- Please see the attached handout provided by Justin Orendorf.

Garrett County Emergency Management and EMS – Wayne Tiemersma

- All the EMS full-time positions are filled on the career side; a couple of part-time position will possibly be filled in the future.
- Northern Garrett County Rescue Squad has hired some additional providers.
- A kickoff meeting for the Community Resource group was recently held.
- EMS is partnering with the Health Department and looking at starting a peer support follow-up program.

Garrett County Health Department – Diane Lee

- There was an Active Shooter presentation recently.
- The 2nd meeting of PIOs in the county was held. They are working toward the drill they will be doing later on.
- Flu shot clinics have started.

Allegany County Activities

Allegany County Emergency Management/Communications / Emergency Services Board – Jim Pyles

- Five promotions were recently made: Chris Biggs is now the EMS Chief; Todd Bowman, Matt Doman, Matt Krause, and Mike Salvage were promoted to Lieutenants; enabling supervisory coverage 24 hours a day.
- The Narcan leave behind program is starting up; have 90 kits to give to providers.
- They will begin sharing information on overdoses with the Health Department by a secure network to help follow-up on overdoses.
- Tim Dayton has stepped down as the Chair of the Emergency Services Board. Jim Pyles is the new Chair. The next meeting is in December with elections occurring in February.

Allegany County EMS – Chris Biggs

- The County requested two Lifepak 15's and two 1000's from the MIEMSS 50/50 Grant.
- They were awarded some funding from the MIEMSS Active Assailant Grant which will be primarily used for the Stop the Bleed Program for the schools in Allegany County.
- During October and into November there will be ALS Skills competency testing at the Public Safety Building for ALS providers.
- The ESB just approved the new QA Plan. It is up and operational now and they have been doing a lot of case reviews.

Allegany County Health Department – Alison Robinson

- The Health Department is in the middle of accreditation now.
- Today an Active Shooter Drill was held using the run/hide/fight model; people are doing better with this than the previous model that had been used.

WMHS – Bill Hardy

- Flu clinics started this month; over 1000 people showed up on the first day.
- Bill spoke about a few issues with helicopter transports: Recently there was an incident where a MedSTAR helicopter showed up at the hospital with no notification given. Also, Charge Nurses get information when Trooper 5 is launched but haven't always received follow-up information in the last few months; they do call when they are coming into WMHS but not always if they go to another facility.

Allegany College of Maryland – Kathy Condor

- Kate Winfield is stepping down as the Heart Association Training Coordinator.
- The College has received a large grant from the Maryland Opioid Operation Command Center to bring training from the Center for Mind-Body Medicine to the community. Please see attached handout on this training.
- An Ethics for Healthcare Professionals class will be held on December 13.

Regional Reports

Regional Medical Director – Dr. Janelle Martin

- Over the next three months she wants to meet with Wayne and Chris to focus on three separate policies for the area to basically review what we have in place and updating if needed. These policies are: QA & QI; Preceptor programs; and Social Media issues and policies.

Region I Specialty Center – Elizabeth Wooster

- They are still doing outreach education on the 2nd Wednesday of each month, but it will be moving back to the Health System. Since there has not been much participation from prehospital personnel, this move will make it easier for nurses to attend. It is a Specialty Center requirement to have outreach education and a lot of this education is built off of case scenarios.

MFRI

- A handout was provided by Todd Dyché on EMS classes in the Region; please see attachment.

MEMA – No report

- John Reginaldi sent out an email earlier this week to remind everyone about the Complex Coordinated Terrorist Attack tabletop being held November 6 at Allegany County Department of Emergency Services from 9 a.m. to 3 p.m.

Medevac – Rick DeVore

- If you need the aircraft call for it, they (SYSCOM) will get it to you. The number of calls are also being tracked.
- Trooper 5 has occasional late shifts now. They are recruiting to get staffing up.

CISM – Al Ward

- No calls since last meeting.
- They are looking to do drills inside for any company wanting one.

AGCVFRA – No report

Region I & II Healthcare Coalition

At this time, they have done away with coordinators across the state.

Career Fire & EMS – Vince Pyle

- The National Night Out held on August 6 went well.
- The Fire Department hired 2 new people in July and are looking to hire 3 more.
- They have secured funding to replace the ladder truck and are going to re-chassis an ambulance also.
- Vince congratulated Doug Beitzel on his recent promotion to Lieutenant.

Commercial Ambulance – No report

MIEMSS

Dr. Ted Delbridge

- Talked about the CHATS System.
- Informed the group on a meeting held with hospitals in the state concerning the Diversion System in place now.
- Briefly discussed the EMS Plan and provided a handout on the EMS System Plan: Vision 2030. See attachment.
- There is an all-day conference on December 18 in Annapolis to talk about the EMS Plan. People can email Barb Goff if they would like to attend.

Region I Report – Dwayne Kitis

- Dwayne provided the group with a handout concerning the CRISP updates. See attachment.
- The Region I Hall of Fame needs nominations by the end of the year.
- He thanked Bill Hardy for all he has done over the years.
- A motion was made to accept the prioritization of the applications for cardiac monitors in the Region for the 50/50 grant; motion passed.

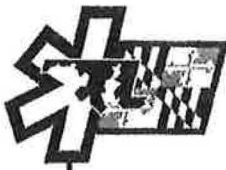
Old Business - None

New Business

- Interviews for the Associate Administer position for MIEMSS Regions I & II will be held next week.

Adjournment

The meeting adjourned at 8:15 p.m.



State of Maryland

**Maryland
Institute for
Emergency Medical
Services Systems**

653 West Pratt Street
Baltimore, Maryland
21201-1536

*Larry Hogan
Governor*

*Clay B. Stamp, NRP
Chairman
Emergency Medical
Services Board*

*Theodore R. Delbridge, MD, MPH
Executive Director*

410-706-5074
FAX 410-706-4768

To: Highest Jurisdictional Officials
Medical Directors

From: Timothy Chizmar, MD, FACEP
State EMS Medical Director

Date: October 8, 2019

RE: Storage of Controlled Dangerous Substances in Ambulances

Recently, I received a request to clarify the physical security requirements for the storage of Controlled Dangerous Substances (CDS) Schedules II-V on ambulances in Maryland. For our current Maryland formulary, CDS as defined by the Drug Enforcement Administration (DEA) includes the following medications: fentanyl, morphine, diazepam, midazolam, haloperidol, and ketamine.

Federal DEA security requirements for practitioners (21 CFR 1301.75) require that CDS are stored in a "securely locked, substantially constructed cabinet." In addition to effective physical security controls, there must be "additional procedures in place to reduce access by unauthorized persons." The Maryland Office of Controlled Substances Administration (OCSA) requirements (COMAR 10.19.03.12) mirror the DEA regulations. A "double-lock" system may be used, but it is not specifically required by DEA or OCSA. Either agency can be contacted for an evaluation of CDS security measures to ensure compliance with state and federal law.

The Maryland Voluntary Ambulance Inspection Program (VAIP) will conduct an assessment of CDS storage on ambulances during biennial ambulance inspections. In consultation with the Maryland OCSA, at minimum, Maryland EMS services should secure all CDS in:

1. A locked metal safe, which is secured to the ambulance, with a controlled access system (double-lock not required), or
2. A locked container that is stored within a locked cabinet or ambulance compartment ("double-lock system"); ambulance vehicle locks and inventory control tags do not count as a lock.

In addition to this memorandum, EMS services should consult DEA requirements in 21 CFR 1301 and Maryland OCSA requirements in COMAR 10.19.03. Thank you for your assistance in ensuring the security of our medications on Maryland ambulances.



Garrett College
ALS Training report for
Region 1 EMS Advisory Council meeting

October 17, 2019 - 1900 hours – WMHS

Cohort Report and status.

2018-2020 cohort – 30 students started the paramedic program in September 2018.

4 students withdrew and 2 failed the 1st semester. At the start of the 2nd semester, 2 additional students returned from the last cohort and during the 2nd semester, 4 students withdrew leaving 22 students graduating the 1st year. Of the 22 students, 21 students tested for the psychomotor NREMT '99 exam with all currently complete. To date, 18 of the 21 students have taken and passed the NREMT '99 written with 3 needing to retest. After completing the NREMT '99 testing, 17 students to date have taken the Maryland CRTI exam with 14 passing, 3 needing to retest. Graduation will be May 28, 2020 at 7pm in the auditorium at the main campus. This is your save the date and invitation.

2020-2022 cohort – We are currently laying out the program for the next cohort. There are major changes to layout (not content) due to no CRTI level being offered. Applications will be available soon after the first of the year and due no later than May 31, 2020.

ALS Skills Review

Both counties are currently having skills reviews for providers renewing in March 2020.

GEMS

A Geriatric Education for EMS (GEMS) course was just held at the Garrett College CTTC and taught by MFRI on Sunday, October 13th.

MFRI ALS courses in Region 1

NCCR ALS Refresher – Garrett County

Nov. 23, 24, Dec. 7 & 8

NCCR ALS Refresher – Allegany County

Nov. 2, 3, 16 & 17

Emergency Pediatric Care (EPC) – Allegany County

March 28, 20

Register for all at www.mfri.org and look for ALS schedules.



GARRETT COUNTY

DEPARTMENT OF PUBLIC SAFETY

202 East Alder Street, Oakland, MD 21550
301-334-1929



Garrett County 911 Update

2019 Year to Date

Incidents

2744 EMS Calls

1270 Fire Calls

5856 Police Calls

9870 Total

32,306 Total Admin / 911 Calls

Project for console upgrades has started and we are looking at approximately a 5-6-month process until completion.

Funds were requested in the amount of \$25,000.00 in the FY2020 budget and approved to add an additional VHF Ops channel and improve the antenna and coax at the Elder Hill Tower site.

The regional AFG grant was awarded for Garrett County in the amount of \$907,061.81 of which \$90,706.19 will be the departments share making the total amount of the project \$997,768.00. Garrett County has approved to pay the departments share with this grant and they have also given the green light to allow finance to assist with the procurement and closing of the grant or to help in whatever way the volunteers need.

The grant specifics:

118 portables at \$4,975.00 per unit and 66 mobiles at \$5698.00 per unit. There is also \$34,000 set aside in the grant for 66 mobile radio installations.

Justin Orendorf, Asst. Chief
Garrett County 911

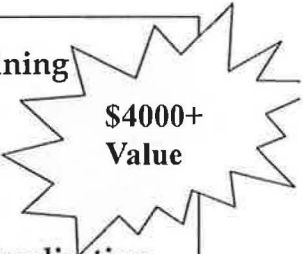
Tackling the Opioid Crisis: A Community Resilience Approach

ACM has received \$443K in funding through the Maryland Opioid Operational Command Center to bring training from the Center for Mind-Body Medicine to our community.

- The CMBM Model of Self-Care and Group Support addresses the root causes of addiction: trauma; despair; isolation; mental health challenges; chronic illness and chronic pain.
- The Community Resilience Collaborative has 20 Community Partners – and growing!
- More than 45 local professionals are currently trained in the CMBM model and ACM has successfully used this model for almost two decades.
- The CMBM “train the trainer” Model is designed to be self-sustaining.

The OOC grant will fund 150 seats in the CMBM Professional & Advanced training

- **Professional Training is scheduled for February 7-10, 2020**
- **Advanced Training is scheduled for March 12-15**
- **Participants are required to attend all 8 days of training**



**\$4000+
Value**

- **The grant is designed to establish a Community College based model for replication across the state. Approximately 30 seats will be allocated for this purpose.**
- **Upon completion of the Advanced Training, participants are committed to facilitate at least one 8-week Mind-Body Skills group & two @ 1-hour information workshops (PowerPoint provided) in the community. Participants can do this in pairs.**
- **You will have EVERYTHING you need and facilitator supervision will be provided through the grant.**
- **Our grant goal is to reach 2,000 individuals with Mind-Body Skills training!**
- **A local leadership team will be developed and groups & supervision will be ongoing.**

Examples of who can apply for the grant funded training?

• Addictions Counselors • Athletic Trainers • College Faculty and Staff • Community Health Workers • Corrections Staff • First Responders • Guidance Counselors • Health Care Professionals • Individuals in the recovery community • Leaders supporting the recovery community • Mental Health Professionals • Parole and Probation Staff • Peer Recovery Specialists • Physical Therapy Professionals • Social Workers • Spiritual leaders • Teachers

Where can I sign up or get more information?

We will upload additional details regarding the application and selection process to allegany.edu/mind-body-connection as soon as the grant contract is received and reviewed.

To be added to the distribution list to receive additional information as it becomes available, please email kcondor@allegany.edu.



Maryland Fire and Rescue Institute
 University of Maryland
 Western Maryland Regional Training Center
 Post Office Box 5153
 13928 Hazmat Drive
 Cresaptown, MD 21502-5153

EMS Class Update in Allegany / Garrett County

Report Date: October 2019

Class	Log Number	Location	Start Date	Days	# Students	Status
EMT	-	WMRTC	2/24/19	Su/W	25	Completed
EVO	-	Tri-Towns EMS	8/10/19	Sat/Sun	(5)	Canceled
EMT	-	GCCTTC	8/19/19	M/W/Sun	14	Active
EMT	-	WMRTC	8/20/19	T/Sat	19	Active
EMS Officer I	-	GCCTTC	9/3/19	T	(1)	Canceled
EMS Officer I	-	WMRTC	10/5/19	Sat	(6)	Canceled
EMT Refresher	EMS-203-S001-2020	GCCTTC	11/2/19	Sat/Sun (skips one weekend)	(10)	Open / Active
EMT Skills	EMS-202-S001-2020	WMRTC	11/4/19	M/W	(8)	Open / Active
*EMT Refresher	<i>EMS-203-S002-2020</i>	<i>WMRTC</i>	<i>12/7/19</i>	<i>Sat/Sun</i>	<i>(5)</i>	<i>Open</i>

Notes:

1. Numbers in parentheses indicate total preregistered students
2. *red color, bold, and italicized font indicates additional enrollment needed for class to start

MARYLAND EMERGENCY MEDICAL SERVICES

A SYSTEM TO SAVE LIVES

EMS System Plan: Vision 2030

Maryland EMS is a well-coordinated system of volunteer and career professionals who are optimally qualified to provide out-of-hospital acute medical care with state-of-the-art technologies and techniques to reduce the effects of injuries and illnesses within our communities.

Maryland EMS strives to be adaptive and innovative, inherently safe and effective, integrated and seamless, reliable and prepared, socially equitable, and sustainable and efficient. [add explanation]

[add preamble / introduction / relationship to prior plans]

EMS CLINICIANS

The underpinnings of Maryland's EMS system are its dedicated clinicians who, whether volunteer or career professionals, strive to deliver state-of-the-art out-of-hospital emergency care. They include 15,485 emergency medical technicians (EMT), 587 cardiac rescue technicians (CRT), and 3,728 paramedics. Maryland requires them to be certified by the National Registry of EMTs prior to initial licensure. As requirements for certification and licensure have increased over time, recruitment and retention of a qualified workforce has demanded additional attention. Awareness of occupational stressors requires enhanced focus toward clinician wellness.

- Attract and retain a diverse, inclusive, and population-representative EMS workforce.
 - Monitor workforce trends.
 - Evaluate needs and develop solutions.
- Ensure EMS clinicians are optimally prepared and qualified for the care they are called to provide.
 - Evaluate options and appropriateness for levels of licensure/certification and added qualifications.

- Promote cultures of safety.
 - Promote occupational safety including prevention of injury, communicable disease, and unhealthy stress.
 - Maintain patient-centric safety awareness.
- Develop and disseminate resources to continuously improve wellness.
 - Develop and maintain a statewide wellness-focused workgroup.
 - Ensure that every EMS clinician has the necessary information and resources to pursue his or her own overall wellness.
- Maintain reliable and efficient systems to facilitate licensure/certification.
 - Update processes as appropriate.
 - Provide licensed/certified clinicians with appropriate recognition of their achievements.
 - Include processes for monitoring clinician levels of qualification, including added qualifications.
- Maintain a culture of accountability.

MEDICAL DIRECTION

Medical direction in Maryland is led by the state EMS medical director and the aeromedical director. Five regional EMS medical directors report to the state medical director and there is a jurisdictional EMS medical director for each of the 26 EMS operational programs. Additionally, each of Maryland's 40 commercial services has an agency medical director. Fourteen of Maryland's EMS medical directors are board-certified in EMS medicine.

Online medical direction is provided through a network of 47 EMS base stations located in emergency departments throughout Maryland. All physicians providing medical consultation must complete an initial EMS Base Station Course and annual protocol updates. Statewide EMS protocols are updated annually with the advice of a protocol review committee and the approval of the Maryland EMS Board.

- Ensure all aspects of the EMS system benefit from optimally qualified EMS medical direction.
 - Develop new EMS physicians.
 - Create opportunities for EMS physician fellows.
 - Incorporate multi-disciplined physician input to clinical decision-making.
 - Enhance EMS physician involvement in quality improvement and evaluation processes.
 - Create additional continuing medical education opportunities for EMS physicians.

- Support legislative and regulatory initiatives to optimize the practice environment for EMS medical directors.
- Ensure availability of appropriate “on-line” medical direction as necessary.
 - Evaluate orientation and update processes.
 - Incorporate technological solutions, as appropriate.
- Ensure that EMS medical protocols reflect best practices, emerging evidence, and national standards.
- Designate “Maryland EMS Physicians.”
 - Develop potential criteria.

EDUCATION & TRAINING

Initial education for EMS clinicians takes place at 45 programs in Maryland. Each program is authorized by the state EMS Board, and include the University of Maryland Baltimore County (UMBC), 13 community colleges, seven public safety training academies, and the Maryland Fire Rescue Institute (MFRI). EMS clinicians are initially certified as an Emergency Medical Responder, Emergency Medical Technician, or Paramedic. Continuing education required for maintenance of certification and licensure is offered throughout the state over the course of each year at various conferences and seminars.

- Ensure Maryland EMS educational programs meet the needs of EMS clinicians.
 - Emphasize safety.
 - Monitor and report certifying examination success.
 - Deliver state-of-the-art content.
 - Promote critical thinking.
 - Continue to oversee and monitor approved educational programs.
 - Develop “just-in-time” educational content.
 - Utilize quality improvement and evaluation data.
 - Transform needs assessments to education.
- Ensure Maryland EMS educational programs meet the needs of communities and patients.
 - Emphasize safety.
 - Provide content relevant to patient and community needs.
 - Emphasize therapeutic communication, affective domain, and professionalism.
 - Incorporate knowledge of special populations and cultural diversity.
- Ensure there is a process to recruit, retain, and validate the qualifications of EMS educators.

CLINICAL CARE

Maryland's EMS clinicians respond to approximately 1.2 million calls for help each year, and transport more than 530,000 patients to emergency departments for their continuing care. Statewide EMS protocols guide the preponderance of care provided. The protocols are continually evaluated to identify opportunities to improve care and resulting outcomes. Protocol development and revisions are informed by data from the statewide eMEDS patient care report system and problem-specific registries. The Protocol Review Committee is active in the process, and provides advice regarding introduction of clinical innovations and pilot and research protocols.

- Ensure EMS clinical care reflects best practices, statewide.
 - Continually evaluate evolving science.
 - Provide EMS clinicians with protocols and medical direction that reflect the state of the art.
 - Ensure EMS protocols are developed with appropriate multi-disciplined input.
 - Develop protocols that are clear and concise.
 - Limit perfunctory needs for on-line medical direction.
 - Ensure the protocol development and revision processes are efficient and responsive.
 - Enable time-limited local and regional pilots to evaluate evolving science and technique.
 - Evaluate meaningful patient outcomes.
- Promote “top-of-license” care delivery.
 - Encourage quality care versus rapid transport.
- Facilitate local adaptation depending on available resources.
- Ensure EMS clinicians are appropriately knowledgeable and skilled to meet clinical demands and expectations.
 - Provide adequate resources.
 - Match clinical expectations and patient needs to qualifications and competencies.

SYSTEMS OF CARE

Specific systems of care refine the strategies to optimally treat certain EMS patients, including those with trauma, stroke, cardiac, and perinatal conditions. Each system defines appropriate EMS evaluation and treatment, and indicates preferred patient receiving centers. Among them are trauma centers (one primary adult resource center, one level I center, four level II centers, three level III centers, and two pediatric centers), stroke centers (32 primary, three comprehensive), 27 cardiac interventional centers, an adult and a pediatric burn center, and perinatal centers. The Code of Maryland (COMAR) Title 30 describes center designation processes, which are overseen by the Maryland Institute for Emergency Medical Services Systems (MIEMSS). Representatives from each designated specialty center actively participate in statewide quality improvement initiatives and regulatory revisions.

- Develop and maintain systems of care appropriate for emergency conditions encountered by the State's population.
 - Enhance existing systems of care for trauma, cardiac, stroke, and perinatal patients.
 - Ensure the concept of "system" is patient-centric for Maryland's entire population.
 - Consider cultural diversity.
 - Consider geography and demography.
 - Consider special needs populations, specific illnesses, and injury patterns.
 - Plan for and evaluate sufficiency of intrinsic transportation needs and availability.
 - Establish guidance for specific injury and illness types and severities.
- Solidify and update the framework for statewide EMS systems of care.
 - Ensure state-of-the-art technique and technology in the field.
 - Ensure state-of-the-art assessment and care by EMS personnel.
 - Ensure systems incorporate the centers located outside the state that care for Maryland EMS patients.
 - Monitor their participation.
 - Incorporate evaluations.
 - Continually update guidance based on evolution of clinical science.
 - Consider severity of clinical findings and availability of diagnostic and therapeutic resources.
 - Evaluate the potential appropriateness of post-cardiac arrest resuscitation centers.
 - Evaluate the potential appropriateness of regionalized critical care.

- Continue Maryland Institute for Emergency Medical Services Systems (MIEMSS) designation of trauma, stroke, cardiac intervention, and perinatal center.
 - Update expectations and standards for center designation, as appropriate.
 - Ensure standards and designation processes meet or exceed nationally based criteria.
 - Support ongoing development of existing trauma, stroke, cardiac, and perinatal centers.
- Support continual evaluation of system of care centers.
 - Work to determine and monitor system effectiveness.
 - Use available quality improvement tools, as appropriate.
- Facilitate trauma, cardiac, stroke, and perinatal/neonatal-related EMS research.
- Evaluate appropriateness of developing additional systems of care.
 - Monitor evolving clinical science.
 - Consider distribution of specific resources and expertise.
 - Evaluate potential impacts, including costs and effects.
 - Incorporate multidisciplinary perspectives.
- Develop an Emergency Department collaborative.
 - Enhance abilities to monitor and respond to statewide emergency department conditions.
 - Improve procedural consistencies between field EMS agencies and emergency departments.
 - Develop and maintain system-of-care mindedness for general EMS patients.
 - Improve ED-to-ED and ED-to-EMS collaborations, including MIEMSS and EMS Operational Programs (EMSOPs).

INTEGRATION OF HEALTH SERVICES

Maryland EMS is recognized as an important component of care for some clinical problems that may be of immediate high consequence, such as trauma. More recently, the value of EMS-derived information has been recognized and incorporated into the fabric of health system information and patient care records. Data-sharing agreements facilitate information conduits to the Chesapeake Regional Information System for our Patients (CRISP), for example. Additionally, several EMS programs have pursued community or population health initiatives characterized as mobile integrated health. In doing so, they have collaborated or integrated with other aspects of the healthcare system, including hospitals, public health, and other allied health services.

- Work to ensure that EMS is considered part of the continuum of health care.
 - Share appropriate information to be parts of patients' complete medical records.

- Participate with other principals in the healthcare system to monitor community health, improve the delivery of care, or develop novel solutions.
- Participate within community-based systems of care to address focused clinical or community problems.
 - Contribute to delivery of state-of-the-art care in every community.
- Engage and participate with multidisciplinary healthcare resources to develop innovative approaches to improve community health.
 - Work toward optimal utilization of appropriate resources.

COMMUNICATIONS

The Emergency Medical Resource Center (EMRC) is the hub for EMS communications. It is supported by two satellite centers in Allegany and Talbot Counties. Extensive microwave links throughout the state enable EMS clinicians to consult with and receive direction from base stations and clinical experts anywhere in Maryland. The system is currently in the midst of an extensive upgrade to modern digital technology. Interoperability among Maryland's emergency responders is facilitated by Maryland FiRST, a statewide 700 MHz network designed to support connected responder needs. Each jurisdiction is responsible for the communications systems within themselves.

- Develop and implement EMS communications systems that are integrated and interoperable.
 - Ensure system accessibility.
 - Ensure EMS operational program competency with available systems.
 - Ensure adequate training for field personnel.
 - Minimize end-user complexity.
- Maintain EMS communications systems to ensure reliability and effectiveness.
 - Refresh equipment appropriately.
 - Maintain up-to-date technology.
- Evaluate clinical and operations needs.
 - Incorporate research and evaluation results in planning and execution of communications systems updates.
 - Consult operational programs and end-users.
 - Incorporate updated modalities and formats, as appropriate.
 - Support data sharing.
- Leverage existing and evolving frameworks.
 - Collaborate within local, state, and national partnerships.
 - Employ existing tower sites and technologies, as appropriate.
 - Employ FirstNet®, as appropriate.

PUBLIC ACCESS

Public access to emergency medical services in every jurisdiction in Maryland is enabled through calls to 9-1-1 centers. Several have undergone recent technology updates as the patterns of callers have evolved, meaning calls from wireless devices exceed those from landline telephones in many areas. Resources are being made available to begin implementation of Next Generation 9-1-1, which is intended to facilitate access and information transfer by means other than voice communications.

- Ensure universal access to EMS.
 - Implement “Next Generation 9-1-1.”
 - Secure funding.
 - Develop and implement communications center operational standards.
 - Improve access among people with disabilities, language barriers, or who are incapacitated.
 - Develop and implement training standards among public safety answering point personnel.
- Enhance interoperability among public safety answering points.
 - Improve communications format standardization.

PUBLIC EDUCATION (PI&E)

Public education is a core mission of the EMS system. Healthcare personnel, including EMS clinicians, are often a trusted source of valuable educational information. Further, as visible members of the community, EMS clinicians often have access to people and awareness of circumstances that other elements of the healthcare system routinely do not. Each of the specialty centers that serve as pinnacles of systems of care is obliged to engage in public educational initiatives.

- Use demographic and epidemiologic information to identify community educational needs.
- Empower EMS clinicians to provide appropriate, current, and relevant education to community members.
 - Provide necessary training and materials.
 - Incorporate current technologies within existing educational programs.
- Collaborate with other relevant public educational initiatives, as appropriate.
- Evaluate public educational initiatives.

- Use results to improve processes and activities.

PREVENTION

An important aspect of both public education and EMS human resources is prevention. EMS clinicians are in unique positions in the community and with their patients to instill prevention mindedness as part of educational initiatives. It is just as important that their focus on prevention turn inward. Recent efforts include development of an Emergency Services Personnel Health and Wellness Workgroup.

- Use available datasets, including epidemiologic information, to identify appropriate prevention topics.
- Develop EMS clinicians as prevention advocates and educators.
 - Provide them with appropriate information and tools.
 - Acknowledge their efforts and successes.
- Consider demographic and cultural variations among EMS clinicians and Maryland communities.
- Ensure that EMS clinicians are prevention-minded.
 - Maintain a culture of safety.
 - Work to prevent occupational illness and injury.
 - Focus on wellness for EMS clinicians and their communities.

SYSTEM FINANCE

Funding for Maryland's EMS system is provided from a variety of sources.

The Maryland Emergency Medical Services Operation Fund (MEMSOF) provides support for EMS partners in the state's budget annually. The MEMSOF derives its revenue primarily from a \$29 biennial motor vehicle registration surcharge and \$7.50 moving violation surcharge. This fund supports the operations of Maryland Institute for Emergency Medical Services Systems (MIEMSS), the medically oriented missions of Maryland State Police Aviation Command (MSPAC), Maryland Fire and Rescue Institute (MFR I), an operating subsidy to the R Adams Cowley Shock Trauma Center, and grants (Amoss Fund) to local jurisdictions for the purchase of fire and rescue equipment and building rehabilitation. The MEMSOF's revenue sources are not inflation sensitive, which has resulted in fee increases approximately every ten (10) years in the past. The Fund is projected to face insolvency again after fiscal year 2024.

Costs for delivering EMS within individual jurisdiction are offset by myriad sources, including tax revenue, various grants, and, in some cases, volunteer fundraising. Additionally, most providers of EMS bill for services when patients are transported to a hospital. Work is ongoing to develop

reimbursement models for a broader scope of EMS care, including transportation to facilities other than hospital emergency departments, treat-and-release, and “mobile integrated health.”

- Recognize EMS care as part of the continuum of health care that is appropriate for commensurate remuneration.
 - Work to develop all-payer participation for EMS-provided care regardless of transportation to an emergency department.
 - Develop performance metrics, as appropriate.
 - Seek maximum appropriate remuneration for care delivered.
 - Share best practices among EMS operational programs.
- Maintain the Maryland EMS Operational Fund as a solvent and secure source of funding to support the statewide EMS system.

RESOURCE MANAGEMENT

Maryland’s EMS resources include more than 1,300 public safety ambulances and more than 400 commercial ambulances that provide most interfacility patient transports. Additionally, the Maryland State Police provides air medical support for scene response. Private air medical services provide critical care interfacility transport. Through mutual aid agreements and the Maryland Emergency Management Assistance Compact, EMS resources are available to their local jurisdictions as well the entire state.

- Ensure the availability of appropriately staffed and equipped public safety and commercial resources to meet the anticipated needs throughout the state.
 - Maintain standards of safety, including vehicle characteristics and patient safety-related equipment and supplies.
 - Develop tools to monitor deployment and availability of EMS assets.
 - Collaborate with healthcare system stakeholders to address challenges that affect EMS resource availability.
 - Consider patient transportation needs in the contexts of systems of care and medical care facility evolution.
- Ensure the availability and optimal distribution of air medical services.
 - Facilitate timely care within therapeutic windows.
 - Monitor appropriate utilization.
- Pursue innovative strategies to reduce unnecessary resource utilization.
- Enhance interoperability within the state.
 - Increase abilities to share resources efficiently.
 - Develop processes to rapidly identify and deploy available resources.
 - Improve the readiness of deployable EMS assets and personnel.

- Expand public and private collaborations.

PREPAREDNESS AND RESPONSE TO EXTRAORDINARY EVENTS

Preparation for extraordinary events is a continuous process involving many collaborators, including the Maryland Institute for Emergency Medical Services (MIEMSS), EMS operational programs, commercial ambulance services, healthcare partners and other federal, state, and local agencies. Recent efforts include implementation of the CHEMPACK program to deploy time-critical antidotes, development of ambulance strike teams, and an active assailant workgroup. MIEMSS and local agencies periodically participate in disaster exercises.

- Pursue an all-hazards approach to system-wide preparedness
 - Ensure local, regional, and statewide participation in vulnerability assessments.
 - Ensure all-hazards planning among local, regional, state, national, private sector, and other non-governmental partners.
- Maintain situational awareness of the status of the EMS and healthcare system.
 - Collaborate with federal, state and local partners.
 - Remain aware of both current and emerging threats.
- Enhance knowledge and awareness among EMS clinicians regarding extraordinary events.
 - Develop and deliver appropriate educational content.
 - Ensure awareness of pre-, during, and post-response resources.
- Equip EMS personnel to respond to extraordinary events.
 - Pre-position resources based on risk assessments.
 - Distribute equipment and supplies as far “forward” as practical.
 - Distribute immediately life-sustaining resources widely.
- Develop sustainable working relationships with all stakeholders critical to emergency preparedness and response.
 - Collaborate with local, state, federal, private sector, and non-governmental agencies.
 - Collaborate with commercial ambulance companies, hospitals, and other entities of the healthcare system.
 - Facilitate multidisciplined interactions and cooperation.
- Develop capacity to meet the emergency medical needs of the population for up to 72 hours after a catastrophic event.
 - Conduct and incorporate needs assessments.
 - Ensure availability and mobility of resources within the State.
 - Consider cultural diversity and corresponding needs.

INFORMATION SYSTEMS

eMEDS is the statewide EMS patient reporting system and is the focus of the information system. However, the information system is a complex matrix of inter-connected applications and data sources. In turn, it enables the conversion of data to useable information upon which decisions can be made. There is an ongoing need to enhance user experiences, ensure reliability, and maintain appropriate security.

- Develop and/or maintain information systems that support a state-of-the-art, statewide EMS system.
 - Provide reliable and efficient access for end-users.
 - Support all aspects of the EMS system and initiatives.
 - Meet needs of system users at all levels.
- Ensure system security.
 - Deploy appropriate safeguards and security measures.
 - Develop contingency plans for continuity of operations.
 - Improve infrastructure resiliency.
 - Refresh equipment appropriately and maintain up-to-date technology.
- Integrate relevant data.
 - Facilitate data-sharing for individual and community health intervention and surveillance.
 - Enable meaningful systems evaluation at all levels.
 - Support bona fide research initiatives.
- Improve end-user experiences.
 - Limit data input to that which is relevant and meaningful.
 - Provide feedback to users with the data they supplied.
 - Facilitate standardized data elements and definitions.
 - Develop standard queries for specific quality metrics and intra-state comparisons.

EVALUATION

Most evaluation of the EMS system occurs at local levels with varying degrees of sophistication and intensity. Statewide evaluations tend to focus on processes, with limited attention to relevant outcomes. Cardiac arrest outcomes are a notable exception. eMEDS can be queried, but is often complex and cumbersome.

- Develop standard measures to evaluate the statewide EMS system.
 - Evaluate structures.
 - Evaluate processes.
 - Evaluate outcomes.
- Ensure evaluation is part of the EMS culture at all levels.
 - Facilitate evaluation at local levels.
 - Develop report cards that enable intra-state comparisons, where appropriate.
- Benchmark EMS system outcomes to national performance measures, where available and appropriate.
- Exploit the availability of data and information to its maximum potential.

RESEARCH

Several intrinsic characteristics of Maryland's EMS system make it well-suited for conducting meaningful research. Among them are inclusive patient care records, linkages with hospital records associated with systems of care, collaborative potential with prominent academic institutions, engaged EMS physician scholars, sophisticated EMS leaders, and innovative spirit. However, much of the opportunity for generating new knowledge about EMS systems and care remains under-developed.

- Promote a framework to support multidisciplinary EMS research.
 - Consider the statewide EMS system to be a research laboratory.
 - Capitalize on the availability of data.
 - Attempt to answer meaningful questions.
 - Foster collaborations that acknowledge the various contributors.
 - Facilitate institutional review board obligations.
 - Evaluate institutional review board affiliation options.
 - Facilitate access to necessary training.
- Engage EMS researchers.
 - Maintain an active collaborative or interest group.
 - Provide support.
 - Share information.
 - Develop common agendas.
 - Develop system-wide approaches to addressing common logistical challenges.
 - Promote ongoing and completed Maryland-based EMS research.
 - Use educational conferences and publications.
 - Highlight at administrative meetings, including regional councils.
 - Support initiatives to identify and secure research funding.

LEGISLATION AND REGULATION

Maryland Education Article, §13-501 through §13-517 provide the statutory basis for the statewide EMS system and the Maryland Institute for Emergency Medical Services Systems (MIEMSS). Any MIEMSS initiative for statute revision requires pre-approval of the governor. The Code of Maryland Regulations (COMAR) Title 30 provides the regulatory framework for MIEMSS to fulfill its responsibilities for the EMS system. Regulations may be promulgated and revised in accordance with the Administrative Procedure Act, State Government Article § 10-101 through §10-117. State agency regulations undergo structured review every eight years. With regard to EMS-related regulations, stakeholder input is routinely sought as revisions are contemplated.

- Engage a broad constituency in development and modification of rules, regulations, and policies.
 - Invite stakeholder participation.
 - Establish a process whereby concerns or requests for regulatory change can be addressed.
- Ensure statutes, rules, regulations, and policies support a state-of-the-art, statewide EMS system.
 - Review periodically to update as necessary.
 - Strive for a balance of facilitation and appropriate boundaries.
 - Ensure they do not prohibit emerging best practices.
 - Provide a clear path to compliant operations and conduct in an equitable fashion.
- Support statutory and regulatory updates that support EMS clinicians as bona fide health care providers.
- Establish a vision for various stakeholder groups, including regional councils.

CRISP Updates

- **Changing feed from ADT/MDM feed to NEMESIS feed**
- **Developing ability to export local questions**
- **Planning pilot for EMS data to EMR in Region II for late fall**
- **Planning pilot for electronic MOLST access in AA Co. for spring**
- **Planning pilot for paramedic access to CRISP portal in late spring**
- **Mid-Atlantic EMS/HIE workgroup**
- **NASEMSO workgroup**

Primary Column	Column2	Column3	Column4	Column5
Allegany DES	(2) LP15		1	
Garrett ES	LP 15		2	
Eastern Garrett	LP 15		3	
Southern Garrett	LP 1000		4	
Lavale	LP 1000		5	
Bloomington	LP 1000		6	
Cresaptown	(1) LP1000		7	
Allegany County	(1) LP1000		8	
Cresaptown	(1) LP1000		9	
Allegany County	(1) LP1000		10	
Cresaptown	(1) LP 1000		11	
Cresaptown	(1) LP 1000		12	