MARYLAND EMERGENCY
MEDICAL SERVICES

VISION
2030

PLAN FOR THE
EMS SYSTEM

TABLE OF CONTENTS

Throughout Maryland, at every hour of every day, there are literally thousands of dedicated people standing at the ready to respond when emergency medical help is needed. This plan is about them and the system that supports their efforts to save and improve the lives of Marylanders. As important, this plan is by them. More than 200 EMS professionals, career personnel and volunteers, collaborated over the course of a year to establish the principle directions and guidance provided in *Vision 2030*. For my part, I am proud to play a role in Maryland's EMS system and grateful for the opportunity to have worked with all the people who made thoughtful contributions to the development of *Vision 2030*. Now comes the real work, the job of breathing life into our plan. We do that when we seize an opportunity to engage and participate in efforts to advance an issue. I believe there is something for everyone in *Vision 2030*. Each of us can find a piece that speaks to us and calls us to carry the mantle. Thank you for taking the first step, familiarizing yourself with the future directions of Maryland EMS, a system that makes our state a better place to live, work, and visit.

Theodore R. Delbridge, MD, MPH
Executive Director
Maryland Institute for Emergency Medical Services Systems

INTRODUCTION

The legal framework for Maryland's emergency medical services (EMS) system is within the *Annotated Code of Maryland*, Education Article, Subtitle 5, enacted in 1993. Among other things, the law established the Emergency Medical Services Board and the responsibilities and authorities of the Maryland Institute for Emergency Medical Services Systems (MIEMSS). §13-509 stipulates that the EMS Board shall develop and adopt an Emergency Medical System plan to ensure effective coordination and evaluation of EMS delivered in the state. Subsequently, the Board shall adopt regulations to implement the plan.

The first plan, published in 1995, laid out objectives in 15 strategic areas. They provided direction to creating structure for an evolving system. Plans, by their nature, are meant to be revisited periodically. The EMS system planning cycle has been approximately five years; the most recent plan was completed in 2014.

The development of this new plan, *Maryland EMS Vision 2030*, presented a meaningful opportunity to chart a visionary path forward for Maryland's statewide EMS system. Foremost, it is intended to capture the passion thousands of people have for their roles in EMS. It is also meant to harness the insights and expertise of diverse stakeholders who volunteered their input to the process.

Maryland EMS Vision 2030 incorporates concepts from previous plans and nationally led efforts, including the *EMS Agenda for the Future*, National Highway Traffic Safety Administration State EMS Technical Assessment standard criteria, and *EMS Agenda 2050*. It provides strategic direction in 15 important areas.

What's *not* in the plan? It's not a prescription, nor is it a worklist. It doesn't include boxes to be checked off as quickly as possible. Instead, the plan is a roadmap; it tells us where we want to go. Circumstances that evolve over time will help determine how we go about it.

Maryland EMS Vision 2030 lays out the paths we want to follow through the coming decade to get us to where we want to be at the dawn of the next one. Intentionally, it doesn't define all the steps – those are for each of us to determine as we consider our roles, the parts we play, and our potential to contribute to the established direction. There is something to do for everyone. The job of every person and entity that exists within the EMS system, or interfaces with it, is to breathe life into the plan. *Maryland EMS Vision 2030* is a discussion-starter, it is a focal point, and it is a guide to help us stay on track and assess our progress. Although it is not a worklist, it is meant to generate focus that leads to them. When a quantum of work has been completed, the plan is not obsolete. As progress is made, new work can be contemplated and begin, building on accomplishments guided by the *Vision*. In some cases, success may be better evaluated by the nature of the journey rather than the finality of the destination. For the EMS Board and MIEMSS, *Maryland EMS Vision 2030* will be the focal point for developing initiatives, and the standard by which progress is measured. It will provide the most important guidance for the next decade.

Where We Want to Be

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.

EMS CLINICIANS

The underpinnings of Maryland's EMS system are its dedicated volunteer and career clinicians who strive to deliver state-of-the-art, out-of-hospital emergency care at every hour of the day and night. They include 670 emergency medical responders (EMR), 15,485 emergency medical technicians (EMT), 587 cardiac rescue technicians (CRT), and 3,728 paramedics. Scientific discovery and health care system changes have necessarily increased the sophistication of the clinical decisions they make and the care they provide. The requirements for certification and licensure have evolved commensurately. There is continuous need for attention to matters of recruitment and retention of a qualified workforce. Awareness of occupational stressors requires enhanced focus toward clinician wellness.

Where we want to go:

- Attract and retain a diverse, inclusive, and population-representative EMS workforce.
  - Evaluate the extent of diversity among EMS clinicians.
  - Monitor and evaluate workforce trends.
  - Cultivate environments of inclusion.
  - Enhance awareness of issues that affect retention.
    - □ Assess factors associated with attrition.
    - □ Highlight successful recruitment and retention efforts.

- Identify and develop potential leaders.

- Ensure EMS clinicians are optimally prepared and qualified for the care they are called upon to provide.
  - Evaluate options and appropriateness for levels of licensure/certification and added qualifications.
  - Consider national trends and influences in EMS clinician preparation and certification.
  - Evaluate minimal qualifications and staffing to provide an appropriate response and deliver intended care.
  - Monitor EMS clinicians' perspectives regarding optimal preparation and competencies.

- Promote cultures of safety.
  - Promote occupational safety.
    - □ Vehicle safety.
    - □ Injury prevention.
    - □ Communicable disease prevention.
    - □ Unhealthy stress reduction.
    - □ Excessive fatigue avoidance.
  - Improve patient-centric safety awareness.

- Develop and disseminate resources to continuously improve clinician wellness.
  - Develop and maintain a statewide wellness-focused workgroup.
  - Raise awareness of health maintenance and resilience strategies.
  - Ensure that every EMS clinician has the necessary information and resources to pursue his or her own overall wellness.
    - □ Develop and distribute wellness-focused programs and materials.
    - □ Highlight strategies and resources to maintain optimal mental health.

- 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.
  - Evaluate necessity of an agency affiliation to maintain licensure and access to continuing education.
  - Ensure "re-entry" pathways limit undesirable barriers.

- Maintain a culture of professional accountability.
  - Promote mutual accountability of the system and clinicians.
  - Support personal professional growth.

MEDICAL DIRECTION

Medical direction in Maryland is led by the state EMS medical director and the aeromedical medical director. Five regional EMS medical directors report to the state medical director. There is a jurisdictional EMS medical director for each of the 26 current EMS operational programs and each of Maryland's 40 current commercial ambulance services. 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.

Where we want to go:

- Ensure all aspects of the EMS system benefit from optimally qualified EMS medical direction.
    - Evaluate required initial and continuing professional qualifications for EMS medical directors.
    - Develop peer review processes for EMS medical directors.
    - Enhance EMS physician involvement in quality improvement and evaluation processes.
    - Assess patterns of local responsibilities and expectations, resource allocation, and compensation.

- Ensure availability of appropriate "on-line" medical direction, as necessary.
    - Evaluate orientation and update processes.
    - Incorporate technological solutions, as appropriate.
    - Develop strategies to incorporate emerging technologies that potentially facilitate enhanced on-line medical direction.
        - □ Support evolving practices or roles for EMS within the health care delivery system.
        - □ Evaluate opportunities for centralization to improve consistency and quality improvement initiatives.

- Ensure that EMS medical protocols reflect national standards, best practices, and emerging evidence.

- Develop new EMS physicians.
    - Create opportunities for EMS physician fellows.
    - Incorporate multi-disciplined physician input to clinical decision-making.

- Evaluate opportunities to acknowledge or recognize active roles individuals play in EMS medical direction.
    - Create additional continuing medical education opportunities for EMS physicians.
    - Consider multi-disciplined expertise.

- Support legislative and regulatory initiatives to optimize the practice environment for EMS medical directors.

EDUCATION and TRAINING

Initial education for EMS clinicians takes place at 45 programs in Maryland. Programs are approved 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 and Rescue Institute (MFRI). EMS clinicians are initially certified as an Emergency Medical Responder, Emergency Medical Technician, or Paramedic. Initial certification as a Cardiac Rescue Technician was possible until 2020. Continuing education required for maintenance of certification and licensure is offered throughout the state over the course of each year through MFRI, various academies, educational programs, conferences, and seminars.

Where we want to go:

- Ensure Maryland EMS educational programs meet the needs of EMS clinicians.
  - Conduct pre-course academic needs assessments.
  - Deliver evidence-based, state-of-the-art content.
  - Monitor and report certifying examination success.
  - Ensure appropriate medical direction of educational programs.
  - Continue to oversee and monitor approved educational programs.
  - Evaluate opportunities to develop or expand bridge programs.
  - Ensure adequate availability of clinical training sites.
    - □ Promote uniform policies and procedures.
    - □ Define expectations for preceptors of clinical experiences to ensure consistency.
  - Develop "just-in-time" continuing educational content.
    - □ Utilize quality improvement and evaluation data.
    - □ Transform needs assessments to education.
    - □ Employ evolving dissemination technologies and formats.
    - □ Promote critical thinking.
  - Emphasize personal safety.

- Ensure Maryland EMS educational programs meet the needs of communities and patients.
  - Emphasize patient safety.
  - Provide content relevant to patient and community needs.
    - □ Ensure optimal cognitive and psycho-motor competencies.
    - □ Emphasize therapeutic communication 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.
  - Revise credentialing processes, as necessary, to recruit and retain high-quality instructors.
  - Include field training officers or clinical preceptors as integral components of educational program faculty.

- Evaluate strategies to synchronize continuing education requirements for maintenance of licensure with National Registry of Emergency Medical Technicians (NREMT) requirements for maintenance of certification.

CLINICAL CARE

Maryland's EMS clinicians respond to more than one million calls for help each year, and transport more than 550,000 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.

Where we want to go:

- Ensure EMS clinical care reflects best practices, statewide.
  - ◦ Continually evaluate evolving science to inform clinical practice.
  - ◦ Provide EMS clinicians with protocols and medical direction that reflect current scientific evidence and the state of the art.
    - □ Ensure EMS protocols are developed with appropriate multi-disciplinary input.
    - □ Develop protocols that are clear and concise.
    - □ Limit perfunctory requirements 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.
    - □ Initiate pilots with plans for their conclusions.

- Evaluate effects of changes to protocols and clinical practice.
  - ◦ Plan for evaluation as an integral process to initiating or revising protocols.
  - ◦ Disseminate, as appropriate, outcomes related to clinical practice changes.

- Encourage models of care that add value or benefits for the patients being served.

- Facilitate local adaptation depending on available resources.

- Ensure EMS clinicians possess the necessary knowledge and skills to meet clinical demands and expectations.
  - ◦ Ensure clinicians have appropriate resources to provide optimal patient care.
  - ◦ Match clinical expectations and patient needs to qualifications and competencies.
  - ◦ Define minimum staffing requirements to meet clinical expectations.
  - ◦ Promote "top-of-license" scope of service among EMS clinicians.

SYSTEMS of CARE

Specific systems of care refine the strategies to treat certain EMS patients optimally, 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, two pediatric centers, a hand center, and an eye center), stroke centers (36 primary, three comprehensive), 27 cardiac interventional centers, an adult and two pediatric burn centers, 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.

Where we want to go:

• 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 popultion.
    □ Consider cultural diversity.
    □ Consider geography and demography.
    □ Consider special needs populations, specific illnesses, and injury patterns.
  ◦ Plan for and evaluate the sufficient availability of required transportation and mobile critical care.
    □ Define relevant therapeutic windows and goals.
    □ Identify the resources necessary to meet established goals.
  ◦ Establish guidance for specific injury and illness types and severities.

• Solidify and update the framework for statewide EMS systems of care.
  ◦ Promote state-of-the-art technique and technology in the field.
  ◦ Facilitate state-of-the-art assessment and care by EMS personnel.
  ◦ Support ongoing development of existing trauma, stroke, cardiac, and perinatal centers.
  ◦ Incorporate centers located outside the state that care for Maryland EMS patients.
    □ Develop criteria for participation.
    □ Monitor compliance and outcomes.
  ◦ 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 and coordination.

- Continue designation by Maryland Institute for Emergency Medical Services Systems (MIEMSS) of trauma, stroke, cardiac intervention, and perinatal centers.
  - Develop designation criteria and processes for new specialty center types as systems of care evolve.
  - Update expectations and standards for specialty center designations, as appropriate.
  - Ensure standards and designation processes meet or exceed nationally-based criteria.
  - Allow for potential reliance on bona fide nationally recognized processes, as might be appropriate, for validation of centers' qualifications.
- Support continual evaluation of system-of-care centers.
  - Work to determine and monitor system effectiveness.
  - Use available quality improvement programs and 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 multi-disciplined perspectives.
  - Include mental/behavioral health, lower acuity, obstetrics, and pediatric patient situations, for example.
  - Develop criteria and designate receiving facilities, as appropriate.
- Develop an Emergency Services collaborative.
  - Enhance abilities to monitor and respond to statewide emergency department conditions.
  - Improve procedural consistency between field EMS agencies and emergency departments.
  - Develop and maintain system-of-care approaches 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 clinical problems that may be of immediate high consequence, such as trauma and acute coronary syndromes. 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 partners in the health care system, including hospitals, public health agencies, and other allied health services.

Where we want to go:

- Work to ensure that EMS is considered part of the continuum of health care.
    - ◦ Share appropriate information to be included within patients' complete medical records.
    - ◦ Participate with other principals in the health care system to monitor community health or improve care delivery.
- Participate within community-based systems of care to address specific clinical or community health needs.
- Engage and participate with multi-disciplined health care resources to develop innovative approaches to improve community health.
- Collaborate with health care partners to facilitate optimal management of lower-acuity, less-emergent EMS patients and appropriate resource utilization.

- Evaluate establishment of educational criteria and credentials for EMS clinicians dedicated to patient management by integrating health care services.
- Enhance knowledge and awareness among EMS clinicians with regard to health care system resources.
    - ◦ Improve overall knowledge of population health.
    - ◦ Increase awareness of health care services, including mental/behavioral health, which may be available to assist EMS and their patients.

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 system within itself.

Where we want to go:

- 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 and optimize user interfaces.
- Maintain EMS communications systems to ensure reliability and effectiveness.
  - Refresh equipment appropriately.
  - Maintain up-to-date technology.
- Evaluate clinical and operational needs.
  - Incorporate research and evaluation results in planning and execution of communications systems updates.
    - Consult operational programs and end-users.
      - □ Facilitate broad-based input.
      - □ Eliminate planning and operations silos to support collaboration.
  - Incorporate updated modalities and formats, as appropriate to support evolving clinical needs and best practices.
  - Support data sharing and facilitate real-time information exchange.
- Leverage existing and evolving frameworks.
  - Collaborate within local, state, and national partnerships.
  - Employ existing tower sites and technologies, as appropriate.
  - Employ broadband technologies, 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, in part, to facilitate access and information transfer by means other than voice communications.

Where we want to go:

• Ensure universal access to EMS.
- ◦ Implement "Next Generation 9-1-1" consistent with Maryland's NG9-1-1 Plan.
- ◦ Develop and implement communications center operational standards.
- ◦ Employ updated technologies that complement changes in utilization patterns.
- ◦ Improve access among people who have disabilities, language barriers, or who are incapacitated.
- ◦ Develop and implement training standards among public safety answering point personnel to ensure competencies regarding optimal use of technologically advanced interfaces with callers.
- ◦ Enhance interoperability among public safety answering points, improving communications format standardization.

• Increase public access to automatic external defibrillators and other life-saving tools.
- ◦ Reduce barriers to safe deployment.
- ◦ Evaluate legislative and regulatory factors.

Maryland Emergency Medical Services

PUBLIC EDUCATION and PREVENTION

Public education is a core mission of the EMS system. Health care 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 health care system routinely do not. They are often in positions to identify prevention needs, understand potentially effective strategies, and instill prevention mindedness. Each of the specialty centers that serve as pinnacles of systems of care is obliged to engage in public educational initiatives.

Where we want to go:

- Use available datasets and demographic and epidemiologic information to identify community educational needs and appropriate prevention topics.

- Empower and prepare EMS clinicians to provide appropriate, current, and relevant education to community members.
    - Provide necessary training and materials.
    - Incorporate current technologies within existing educational programs.
    - Acknowledge efforts and successes.

- Cultivate funds to support public education and prevention efforts.

- Collaborate with other relevant public educational initiatives, as appropriate.

- Evaluate public educational initiatives.
    - Use results to improve processes and activities.
    - Use results to guide funding priorities and regulatory focus.

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), the Maryland Fire and Rescue Institute (MFRI), an operating subsidy to the R Adams Cowley Shock Trauma Center, and grants (Amoss Fund) to local jurisdictions for the purchase of EMS, fire, and rescue equipment and building rehabilitation. The MEMSOF's revenue sources are not inflation-sensitive. To avert insolvency, fees have been increased approximately every ten (10) years in the past.

Costs for delivering EMS within individual jurisdictions are offset by myriad sources, including tax revenue, various grants, and, in some cases, volunteer fundraising. The contributions of volunteerism are substantial. Additionally, most EMS programs bill for their 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."

Where we want to go:

- Promote EMS care as part of the continuum of health care appropriate for commensurate remuneration.
    - Work to develop all-payer participation for EMS-provided care without necessitating transportation to an emergency department.
    - Seek maximum appropriate remuneration for care delivered.
    - Share best practices among EMS operational programs.

- Support demonstration projects to evaluate EMS cost-effectiveness and substantiate funding.

- Maintain the Maryland EMS Operational Fund as a solvent and secure source of funding to support the statewide EMS system.

- Conceptualize returns on investments for state and local funds, including performance metrics, as appropriate.

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. Commercial 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 as the entire state.

Where we want to go:

• 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 health care 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 throughout the state.
  ◦ Facilitate timely care within therapeutic windows.
    □ Determine how air medical services are required to meet therapeutic goals of systems of care.
    □ Ensure allocation of resources optimizes potentials to deliver time-sensitive care within defined 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 Systems (MIEMSS), the Maryland Emergency Management Agency (MEMA), the Maryland Department of Health (MDH), EMS operational programs, commercial ambulance services, health care partners and other federal, state, and local agencies. Recent efforts include ensuring readiness of the CHEMPACK program to enable deployment of time-critical chemical nerve agent antidotes, development of ambulance strike teams, an active assailant workgroup, and collaboration during the state's response to the COVID-19 pandemic. MIEMSS and local agencies periodically participate in disaster exercises.

Where we want to go:

- 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 health care 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 health care system.
  ◦ Facilitate multi-disciplined 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.
  ◦ Collaborate with local, state, federal, private sector, and non-governmental agencies.
  ◦ Consider cultural diversity and corresponding needs.

INFORMATION SYSTEMS

The focal point of Maryland's EMS information system is eMEDS®, the statewide EMS patient reporting system. However, the information system is a complex matrix of interconnected 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.

Where we want to go:

- Develop and/or maintain information systems that support a state-of-the-art, statewide EMS system.
    - Evaluate capabilities to support eMEDS® and other applications.
    - Support all aspects of the EMS system and initiatives.
    - Include abilities to track interactions and treatments by programs of mobile integrated health and similar innovations.

- Provide reliable and efficient access for end-users.
    - Meet needs of system users at all levels.
    - Continually update the clinician licensure portal to improve experiences.

- 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.
    - Link data sources to expand and improve information availability.
    - 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, including tools and reports.
    - Facilitate standardized data elements and definitions.
    - Develop standard queries for specific quality metrics and intra-state comparisons.

- Continuously evaluate potentially valuable uses for collected data.

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.

Where we want to go:

- Develop standard measures to evaluate the statewide EMS system.
  - ◦ Identify and evaluate meaningful structural variables within the EMS system, including equipment and personnel configurations, for example.
  - ◦ Monitor and evaluate potentially influential process variables.
  - ◦ Evaluate outcomes.

- Ensure evaluation is part of the EMS culture at all levels.
  - ◦ Facilitate evaluation at local levels.
  - ◦ Integrate evaluation as the cornerstone of quality improvement.
    - □ Transform quality assurance approaches to quality improvement mindedness that embraces systems centricity.
    - □ Commit to measure EMS system changes as they are introduced.
  - ◦ Develop report cards that enable intra-state comparisons, where appropriate.

- Benchmark EMS system outcomes to national performance measures, where available and appropriate.

- Use available data and information to its maximum potential for purposes of evaluation.
  - ◦ Create enhanced value for the EMS clinicians who generate data.
  - ◦ Expand strategies to conduct meaningful evaluations and appropriately share findings.

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.

Where we want to go:

- Promote a framework to support multi-disciplined EMS research.
  - Consider the statewide EMS system to be a research laboratory.
    - Capitalize on the availability of data.
    - Attempt to answer meaningful research 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). 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.

Where we want to go:

- 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.
- Enhance awareness of, and educate stakeholders about, statute and regulation changes when they occur.
- 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.
  - Facilitate emerging best practices.
  - Provide a clear path to compliant operations and conduct in an equitable fashion.

- Support statutory and regulatory updates that acknowledge EMS clinicians as bona fide health care providers.
- Establish a vision for various stakeholder groups, including regional councils.
  - Limit duplication of effort.
  - Formalize purposes and roles.
  - Ensure adequate participation by stakeholders and administrative staffs.
- Pursue opportunities to coordinate efforts with other governmental agencies and departments.

APPENDICES

T. Robbie Blackiston
Chair, Executive Committee
Maryland State Firemen's Association
Sudlersville, MD

Alan Butsch, MA, NRP
Assistant Chief
Montgomery County Fire and Rescue Service
Gaithersburg, MD

Barry A. Conte, NRP
EMS Division Chief
Calvert County Emergency Services
Prince Frederick, MD

Patricia Gainer, JD, MPA
Deputy Director
Maryland Institute for Emergency Medical Services Systems
Baltimore, MD

Kathleen M. Harne, RN, NRP
Captain, EMS Education Program Manager
Frederick County Division of Fire and Rescue Services
Frederick, MD

Richard T. Koch Sr., BS, NRP
Battalion Chief
Ocean City Fire Department
Ocean City, MD

Elizabeth Wooster, PhD, RN, BSN MA, MsEM
Trauma Program Manager
UPMC Western Maryland
Cumberland, MD

Clay B. Stamp, NRP
Chair

Sherry B. Adams
Vice-Chair

Stephan Cox

William Frohna, MD

E. Albert Reece, MD, PhD, MBA

James Scheulen, PA, MBA

Sally Showalter, RN

Wayne B. Tiemersma, NRP

Mary Alice Vanhoy MSN, RN, CEN, CPEN, NREMT-P

Dany Westerband, MD, FACS

APPENDIX C:
Section Workgroup Members

Integration of Health Services
Andrew Naumann
Teferra Alemayehu
Jason Cantera
Jim Matz
Karen Doyle
Justin Kinsey
Scott Haas
Rich Schenning

Human Resources
Christian Griffin
Jim Brown
Andrew Naumann
Andy Robertson
Deb Shaw
Tami Wiggins

System Finance
Jeannie Abramson
Pat Gainer
Sabrina Ross
Sherry Alban
Murray Kalish
Michael Cox
Keith McMinn
Scott Haas

Education/Training
Terrell Buckson
Michael FX O'Connell
Steve Hoffman
Pete Fiackos
Habeeba Park
Jeff Fillmore
Linda Dousa
Venetia Roberts
Rich Schenning
Kenneth Ecker

Public Access
Andrew Naumann
Nathan Durman
Michael FX O'Connell

Research
Luis Pinet Peralta
Lisa Chervon
Monty Magee
Tim Chizmar
Mustafa Sidik
Melanie Gertner
Shyam Misra
Teferra Alemayehu
William Thompson
Tim Burns
Michael Millin
Jen Anders
Christian Griffin
Roumen Vesselinov

Legislation & Regulation/ Policy
Lisa Chervon
Sarah Sette
Tim Burns
Wayne Tiemersma
Lisa Tenney

Medical Direction
Tim Chizmar
Mike Reynolds
Lisa Chervon
Matt Levy
Wade Gaasch
Michael Millin
Linda Dousa

Prevention
Jim Brown
Cyndy Wright-Johnson
Carole Mays
Gail Kostas
Brian Slack
Susanne Ogaitis-Jones
Lisa Tenney
Karen Vogel

Public Education
Jim Brown
Cyndy Wright-Johnson
Pete Fiackos
Steve Duvall
Scott Timberman
Samantha Struve
Gail Kostas
Brian Slack
Susanne Ogaitis-Jones
Habeeba Park
Wayne Dyott
Tami Wiggins
John Filer

Clinical Care
Tim Chizmar
Andrew Naumann
Mustafa Sidik
Scott Barquin
Doug Floccare
David Chisholm
Tim Burns
Michael Millin
Will Rosenberg
Christian Griffin
Rich Schenning

Resource Management/ Transportation
Jeff Huggins
Andy Robertson
Randy Linthicum
John Barto
Marty Johnson
Steve Goff
Lisa Chervon
Doug Floccare
Christian Griffin
John Richter

Communications
Dave Balthis
Rich Berg
Steve Goff
Nathan Durman
Nathan Ruth
Chuck Rollman
Rimando Roxas
Michael FX O'Connell
Scott Haas
Tami Wiggins

Information Systems
Becki Byrd
William Thompson
Dave Balthis
Jason Ruth
Shanae Williams
Teferra Alemayehu
Jason Cantera
Tim Burns
Christian Griffin
Malcolm Compton
Chris Bechtel
Aksa Nainan

Hospital Systems of Care
Anna Aycock
Marty Johnson
Carla Bailey
Carole Mays
Melanie Gertner
Melissa Meyers
Jen Anders
Karen Doyle
Habeeba Park

Evaluation
Rich Berg
John Filer
Shyam Misra
Wayne Tiemersma
Brian Frankel

System Preparedness and Response to Extraordinary Events
Randy Linthicum
Dwayne Kitis
Adam Stump
Mustafa Sidik
Keith McMinn
John Richter
Jeff Huggins
Nathan Durman
Michael FX O'Connell
Steve Goff
Will Rosenberg
Linas Saurusaitis

Jeannie Abramson	MIEMSS
Jessica Acharya	Maryland Department of Health
Sherry Adams	Maryland Department of Health / EMS Board
Mahssan Afkhami	Rockville Volunteer Fire Department
Sherry Alban	MIEMSS
Jim Alfree	Queen Anne's County DES & MACO ECC Committee
Ryan Allen	Maryland Jockey Club
Jennifer Anders	JHU Pediatric Base Station
Carla Aresco	STC / UMMS
Cara Attanasio	Baltimore County FD
Anna Aycock	MIEMSS
Paula Bailey	St. Leonard VFD
Sara Barra	Maryland Department of Health
Tracy Barresi	Saint Agnes Hospital
John Barto	MIEMSS
Ray Bartock	Baltimore City Fire Department
Chuck Barton	Wor-Wic Community College / OCFD
Kyle Bates	UMBC Department of Emergency Health Services
Mark Bilger	MIEMSS
Richard Blair	Washington County Fire and Rescue Association /PP
Jim Brown	MIEMSS
Ron Brown	Air Methods
Dennis Browne	Community Rescue Service / Washington County DES
Robert Buck	Community Rescue Service
Timothy Burns	Montgomery County Fire and Rescue Services
Kathryn Burroughs	MedStar Union Memorial Hospital
Alan Butsch	Montgomery County Fire and Rescue Services
Joel Buzy	Shady Grove Adventist Hospital / USACS
Chirag Chaudhari	Baltimore Washington Medical Center
David Chisholm	Washington County Division of Emergency Services
Paul Chizmar	Department of Emergency Services / Bel Air Volunteer Fire Company
Tim Chizmar	MIEMSS
Robert Christian	Annapolis Fire Department
Brian Christopher	Anne Arundel County
Joseph Ciotola	Queen Anne's County DES

Claudia Clark	Anne Arundel Community College
Alicia Clugh	Bethesda-Chevy Chase Rescue Squad
Cindy Cohen	Mercy Medical Center
Eric Cohn	Howard County Fire & Rescue
Adam Cole	Vesper Medical Transport
Michael Cole	Frederick County Fire and Rescue
Barry Contee	Calvert County Public Safety
Steven Corioni	Flintstone Volunteer Fire Company
Michael Cox	MFRI / SEMSAC
Stephan Cox	EMS Board
Joe Cvach	Anne Arundel County Fire Department
Stephanie Dabulis	Calvert Health, Department of Emergency Medicine
Jill Dannenfelser	College Park VFD / Maryland ExpressCare
Ted Delbridge	MIEMSS
Jessica Dell	MedStar Harbor Hospital
Janet Demeritt	Volunteer Marine Fire Rescue
John Donohue	Cecil County Department of Emergency Services
Shari Donoway	Wicomico County HJO
James Doonan	Dunkirk Volunteer Fire Department
Geoff Dougherty	HSCRC
Linda Dousa	Harford County Volunteer Fire and EMS Association / MSFA
William Dousa	HCVFA, MSFA
Kristopher Doyen	GWGVFD
Karen Doyle	R Adams Cowley Shock Trauma Center
Aaron Edwards	Annapolis Fire Department
Dean Elliott	Montgomery County Fire and Rescue Service
Joshua Engle	Salisbury Fire Department
Troi Lynn Faith	Dorchester County Emergency Services
Mark Fletcher	Caroline DES/EMS
Lolita Fullard	MIEMSS
Margaret Fowke	Silver Spring Fire Department
Brian Frankel	Prince George's County Fire / EMS Department
Gregory Fries	Talbot County Emergency Services
Pat Gainer	MIEMSS
Samuel Galvagno	R Adams Cowley Shock Trauma Ctr. / Anne Arundel Co. Fire Department

James Gannon	Sinai Hospital of Baltimore
Daniel Geary	St. Mary's County
Melanie Gertner	MIEMSS
Barbara Goff	MIEMSS
Steve Goff	MIEMSS
Avital Graves	Montgomery County Fire and Rescue - Mobile Integrated Health
Christian Griffin	Baltimore County Fire Department
Kathleen Grote	Anne Arundel County Fire Department (Ret.) / SEMSAC
Scott Haas	Queen Anne's County DES
Jonathan Hansen	JHU-SOM Practices (JHBMC and JHH)
Kathleen Harne	Frederick County DFRS
Elliott Haut	Johns Hopkins Adult Trauma and Maryland Trauma Net
Jeffrey Hinebaugh	Garrett Regional Medical Center
Luke Hodgson	MIEMSS / National Capital Emergency Response System
Heather Howes	Calvert County Fire-Rescue-EMS
Heidi Hubble	Johns Hopkins Lifeline
Christina Hughes	MedStar Franklin Square Medical Center
David Hunt	University of Maryland Medical System
Chris Hyzer	MIEMSS
Julius Jackson	LifeStar Response
William Jansen	University of Maryland STC Sim Center
Anne Johnikin	Frederick County DFRS
Dick Johnson	Consumer Member, MIEMSS Region III EMS Advisory Council
Alexander Kelly	MIEMSS
Caitland Kelshaw	Accokeek Volunteer Fire Department
Ishan Khetarpal	Rockville Volunteer Fire Department
Justin Kinsey	Hereford VFC
Dwayne Kitis	MIEMSS
Richard Koch	Ocean City Fire Department
Nicholas Kovach	Dorchester County Department of Emergency Services Communications
Jon Krohmer	Caroline County DES
Ronald Lagana	Howard County Department of Fire and Rescue Services
Michael Lambert	Prince George's County Fire / EMS Department
Claire Leidy	Maryland Committee on Trauma
Mark Levy	Howard County Department of Fire and Rescue Services

Matthew Levy	Howard County Department of Fire and Rescue Services
Randy Linthicum	MIEMSS
Robert Linton	JHM Howard County General Hospital
Steven Lohr	Hagerstown Fire Department
John Lovett	STAT MedEvac
Jack Markey	Frederick County, MD Division of Emergency Management
James Matz	Baltimore City Fire Department
Michael McAdams	Maryland-National Capital Region Emergency Response System
Amanda McCartney	Johns Hopkins Bayview Medical Center
Joel McCrea	MSFA
Bob McHenry	Maryland Fire Chiefs Association
Keith McMinn	Maryland State Police Aviation Command
Melissa Meyers	Suburban Hospital - JHM
Timothy Mikules	Anne Arundel County Fire Department
Raven Miller	Kent County OES
Adam Miller	Frederick County Division of Fire & Rescue
Michael Millin	Prince George's County Fire / EMS Department
Jonathan Moles	LifeBridge Health
Dawn Moreland	University of Maryland Prince George's Hospital Center
Robert Muller	Community College of Baltimore County
Travis Nelson	Maryland Department of State Police
Malgorzata Nowaczyk	Frederick County Division of Fire and Rescue
Chrystal Oates	Lexington Park Volunteer Rescue Squad
Clifton Odendhal	Anne Arundel County Fire Department / Ferndale
Susanne Ogaitis-Jones	MIEMSS
Jennifer Osik	University of Maryland Upper Chesapeake Medical Center
Chad Packard	BWI Airport Fire Rescue Department
Kevin Parker	Montgomery County Police - Special Operations Division
Erin Parks	Calvert Health Medical Center
Michael Parsons	MIEMSS
Luis Peralta	MIEMSS
John Perreault	National Institutes of Health
David Phippin	Salisbury Fire Department
Joseph Pignataro	Goodwill VFC
James Radcliffe	Maryland Fire Rescue Institute

Gary Rains	Winfield Community VFD
David Rice	Kent County DES
Andy Robertson	MIEMSS
Al Romanosky	Office or Preparedness and Response, Maryland Department of Health
Timothy Rostkowski	Baltimore County Fire Department
Paul Roszko	Naval District WASHINGTON
Johnie Roth, Jr.	MSFA Legislative Committee / Sandy Spring VFD
Kurt Rubach	Howard County Department of Fire Rescue Services
David Sabat	Howard County Fire and Rescue
Elizabeth Salvucci-Philipson	Chestnut Ridge Volunteer Fire Co.
Linas Saurusaitis	BWI Fire-Rescue
Ron Schaefer	MIEMSS
Kevin Seaman	Charles County DES
Nick Seaman	MIEMSS
Sarah Sette	OAG / MIEMSS
Jeffrey Sexton	Emergency Education Council of Region III
John Shaw	Hyattsville VFD. Annapolis VFD
Patty Sherman	Anne Arundel Medical Center
Sally Showalter	EMS Board
Anna Sierra	Caroline County MD
Charles Simpson	Maryland State Firemen's Association
Todd Smith	Washington County Volunteer Fire & Rescue Association
William Smith	Charles County Volunteer Firemen's Association
Eric Smothers	Frederick County
Kristie Snedeker	R Adams Cowley Shock Trauma
William Stackhouse	OCTAPHARMA Plasma, Inc.
Randy Stair	US Secret Service
David Stamey	Charles County Emergency Services
Clay Stamp	Talbot County DES/EMS Board
Kent Stevens	Johns Hopkins Hospital Adult Trauma
Leonard Stewart	Baltimore County Fire Department
Roger Stone	Montgomery County Fire Rescue Service/ Carroll VESA
Judith Sullivan	SEMS (Special Events Medical Services)
Michael Tagliaferri	Maryland State Police Aviation Command
Patrick Tandy	MIEMSS

|	
Angela Taury	Baltimore County Fire Department
John Taylor Sr.	Laurel Volunteer Rescue and Fire Department
Wayne Tiemersma	Garrett County Emergency Services
Michael Titer	Station 1, Hyattsville, MD
William Todd	Queen Anne's County DES
Kate Tomanelli	MSFA
Wayne Tome, Sr.	Baltimore County Fire Department
Marisa Trantin	Laurel Medical Center
Christopher Truitt	Salisbury Fire Department
Christina Utz	Maryland Highway Safety Office
Andrew Uz	Charles County MICU
Robert Vaccaro	Anne Arundel County Fire Department
Mary Alice Vanhoy	UM Shore Emergency Center / EMS Board
Karen Vogel	SEMSAC
Douglas Walters	Peninsula Regional Medical Center
Angela Wardle	Waldorf Volunteer Fire Department and Rescue Squad
Matthew Watkins	Talbot County Department of Emergency Services
Jonathan Wendell	Anne Arundel County Fire Department
Scott Wheatley	Queen Anne's County DES
Katherine Wheeler	Doctors Community Hospital
Ameejill Whitlock	Middle River Volunteer Fire & Rescue Co. 74
Myra Wieman	Maryland Highway Safety Office
Tami Wiggins	Harford County Department of Emergency Services
Gamunu Wijetunge	Wheaton Volunteer Rescue Squad, Inc.
Jeff Willats	Baltimore County Fire Department
Angella Winn	Burtonsville Volunteer Fire Department
Elizabeth Wooster	Western Maryland Regional Medical Center
Cyndy Wright-Johnson	MIEMSS
Thomas Yowell	Solomon's Volunteer Rescue Squad and Fire Department
John Zaleski	Singerly Fire Company
Michael Ziolkowski	National Disaster Response Agency
Doreen Vines	

- Late spring 2019, MIEMSS leadership staff were assigned general topic areas to develop straw man points for consideration.

- Early summer 2019, MIEMSS leadership staff developed straw man draft with MIEMSS staff.
- State EMS Advisory Council (SEMSAC) and other state EMS committees identified topic-focused workgroup participants.

- Mid-to-late summer 2019, topic workgroups developed iterative drafts of Vision 2030 sections.

- October 2, 2019, EMS Vision 2030 Steering Committee met to review drafts.

- October 3, 2019, SEMSAC was updated regarding EMS Vision 2030 content and development plans.

- October 8, 2019, EMS Board was updated regarding EMS Vision 2030 content areas and development plans.

- Fall 2019, EMS Vision 2030 drafts were made available for stakeholder comments and feedback.

- November 13, 2019. EMS Vision 2030 Steering Committee met to review comments and feedback, and revise draft accordingly.

- December 18, 2019, EMS Vision 2030 Summit was held in Annapolis, MD.

- January 2020, Summit written feedback and workshop notes were collated and reviewed by Steering Committee.

- January 23, 2020, EMS Vision 2030 Steering Committee met to review and discuss all Summit-related workshop notes, written feedback, and subsequent correspondence, and planned draft revisions accordingly.

- March to June 2020, Steering Committee reviewed subsequent draft sections.

- June 25, 2020, draft document was sent to Steering Committee for final approval.

- July 1, 2020, Steering Committee approved draft document.

- July 9, 2020, draft document sent to SEMSAC for final review.

- August 6, 2020, EMS Vision 2030 approved by SEMSAC.

- August 11, 2020, EMS Vision 2030 approved by Maryland EMS Board.

• Integration of Health Services

• EMS Research

• Legislation and Regulation

• System Finance

• Human Resources

• Medical Direction

• Education Systems

• Public Education

• Prevention

• Public Access

• Communications Systems

• Clinical Care

• Information Systems

• Evaluation
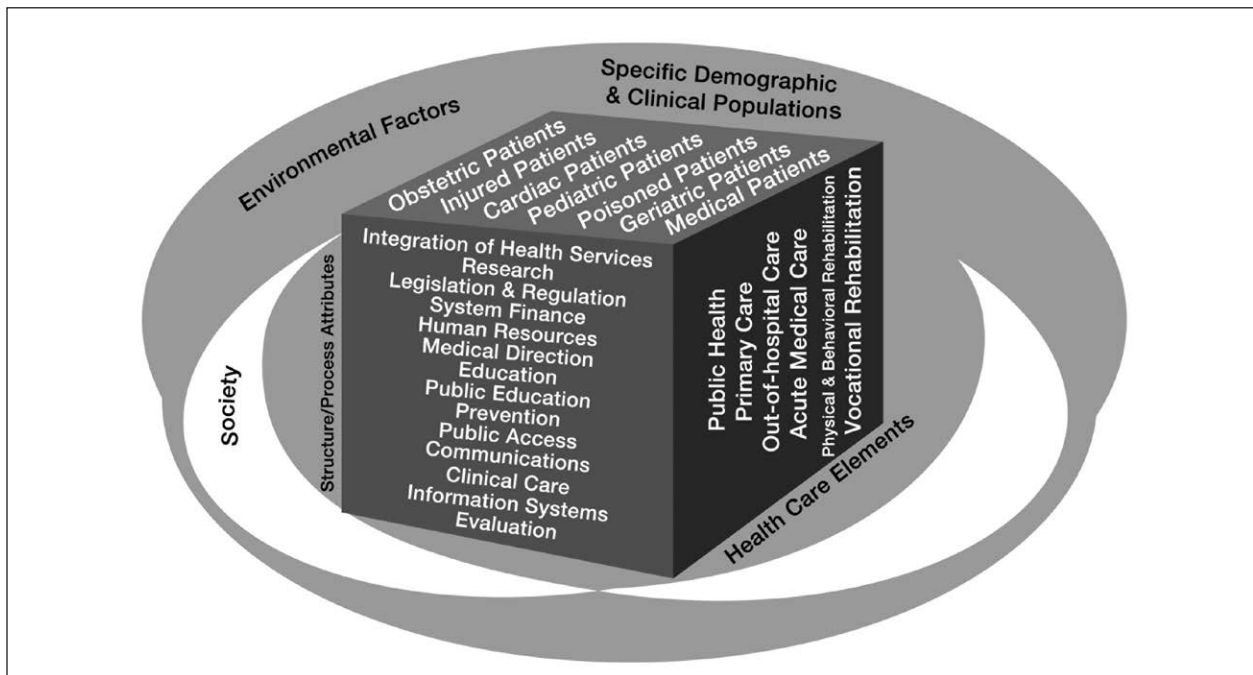
https://www.ems.gov/pdf/2010/EMSAgendaWeb_7-06-10.pdf. Accessed June 20, 2020.

• Regulation and Policy

• Resource Management

• Human Resources and Education

• Transportation

• Facilities

• Communications

• Trauma Systems

• Public Information, Education, and Prevention

• Medical Direction

• Preparedness

• Evaluation

https://www.nh.gov/safety/divisions/fstems/ems/documents/nhtsaexecsummary.pdf. Accessed June 20, 2020.

ADAPTABLE AND INNOVATIVE

Technologies, system designs, educational programs and other aspects of EMS systems are continuously evaluated in order to meet the evolving needs of people and communities. Innovative individuals and organizations are encouraged to test ideas in a safe and systematic way and to implement effective new programs.

INHERENTLY SAFE AND EFFECTIVE

The entire EMS system is designed to be inherently safe in order to minimize exposure of people to injury, infections, illness or stress. Decisions are made with the safety of patients, their families, clinicians and the public as a priority. Clinical care and operations are based on the best available evidence, allowing systems to deliver effective service that focuses on outcomes determined by the entire community, including the individuals receiving care.

SUSTAINABLE AND EFFICIENT

EMS systems across the country have the resources they require to provide care in a fiscally responsible, sustainable framework that appropriately compensates clinicians. Efficient EMS systems provide value to the community, minimize waste and operate with transparency and accountability.

INTEGRATED AND SEAMLESS

Healthcare systems, including EMS, are fully integrated. Additionally, local EMS services collaborate frequently with community partners, including public safety agencies, public health, social services and public works. Communication and coordination across the care continuum are seamless, leaving people with a feeling that one system, comprising many integrated parts, is caring for them and their families.

SOCIALLY EQUITABLE

Access to care, quality of care and outcomes are not determined by age, socioeconomic status, gender, ethnicity, geography or other social determinants. Caregivers feel confident and prepared when caring for children, people who speak different languages, persons with disabilities or other populations that they may not interact with frequently.

RELIABLE AND PREPARED

EMS care is consistent, compassionate and guided by evidence—no matter when or where it is needed or who is providing the care. EMS systems are prepared for anything by being scalable and able to respond to fluctuations in day-to-day demand, as well as major events, both planned and unplanned.

https://www.ems.gov/pdf/EMS_Agenda_2050_Summary.pdf. Accessed June 20, 2020.

Maryland Institute for Emergency Medical Services Systems
653 W. Pratt Street, Baltimore, MD 21201-1536
www.miemss.org