

Plan for a Sustainable EMS System in the State of Maine

A Vision for 2035

May 2023



Table of Contents

Letter from Director Hurley	3
Introduction	4
A Vision for EMS in Maine 2035	5
Plan Elements	8
1. Public and Governmental Understanding and Valuing of EMS	9
2. Data-driven Information about the EMS System	10
3. EMS System Evolution	12
3.1. Structure Within Government	14
3.2. Regional Coordination and Support	16
3.3. Interfacility Transports	17
3.4. Communications and EMD	18
3.5. Emergency Management and Disaster Preparedness	20
4. EMS Finance	21
4.1. The Cost of EMS	23
4.2. Reimbursement Alignment	24
4.3. Local Agency Sustainability	25
5. EMS Workforce	26
5.1. Data-driven Workforce Planning	27
5.2. Education and Training	29
5.3. Leadership Development and Support	31
5.4. Mental Fitness and Wellbeing	32
6. EMS Clinical Care	34
6.1. Medical Direction	35
6.2. Systems of Care	37
6.3. Expanded Role of EMS	38
6.4. Evaluation and Quality Improvement	39
Terms and Definitions	41

Letter from Director Hurley

Dear EMS Stakeholder,

The Board of Emergency Medical Services' *Plan for a Sustainable EMS System in the State of Maine: A Vision for 2035*, will guide the Board and Bureau of Emergency Medical Services' work in carrying out our roles and responsibilities aimed at improving the EMS system in the State of Maine. This shared vision and EMS system alignment behind a united mission allows us to move forward *together*. The development of this plan has reinforced our belief in both the strength of each component of our system and the critical role of partnerships and collaboration with the greater communities that we work with and serve. Our defined values and united vision are most critical in those relationships. A shared vision and united mission empower all stakeholders to embrace a clear pathway forward for EMS in Maine.

This strategic plan provides a broad roadmap for Maine EMS, as a system, and is intended to be dynamic and continue to evolve with our system. The vision, which members of the Board and Bureau of EMS Office will help achieve, provides a framework for creating a sustainable and resilient EMS system in Maine. This plan contains specific milestones and markers of our success in increasing public and governmental understanding and value of EMS, data-driven information about the EMS system, EMS system evolution, EMS finance, EMS workforce, and EMS clinical care.

To fully realize this vision, as was developed by hundreds of stakeholders from across the State of Maine, it will require every EMS clinician, EMS leadership, agency, training center, Bureau staff, Board member, and legislative partner to use this vision to help guide their work. While some initiatives may be managed at the Board level, many others will rest with members of the EMS system and our partners who strive to improve the EMS system in Maine every day.

We look forward to working together to implement this vision for a *Sustainable EMS System in the State of Maine*.

Respectfully,

J. Sam Hurley, MPH, EMPS, NRP
Director, Maine Bureau of Emergency Medical Services



Introduction

This document describes a vision for a sustainable emergency medical services (EMS) system in Maine. It builds on Maine's more than 40 years of modern EMS and reflects the hopes, aspirations and concerns of EMS stakeholders across the state. The document imagines where EMS could be in 2035 and describes a future where all Maine residents and visitors are served by a reliable, sustainable and high-quality system of EMS. The document lays out a high-level plan and metrics to evaluate success.

The vision and plan address neither every aspect of an EMS system nor every concern or challenge. The intent is to inspire and motivate attention and investment in a direction that supports the evolution of EMS in Maine and addresses contemporary sustainability challenges. The vision describes a bold future. The plan describes six areas of focus to achieve the vision and assumes planning will continue with specific objectives, actions, measures and timelines identified for each step.

Hundreds of people have contributed to this process. It was guided by simple principles:

- Honor the service, dedication, experience, and wisdom from the past 40 years;
- Be bold and ambitious about the future of EMS in Maine;
- Welcome all perspectives and ideas and be hospitable to the other view;
- Examine the root causes of current challenges and see beyond stop-gap measures to a sustainable future;
- Continue to plan, as the act of planning always supersedes the plan; and
- Bring people together around the possibility of a stronger, better, sustainable future.

Creating the future of EMS in Maine will require more interest, attention, support, optimism and collaboration than ever before. The opportunities will be realized and the challenges met by people building on this process and working together. Look for what inspires you in this vision of the future and join the Board of EMS in creating the best future for all.

A Vision for EMS in Maine 2035

In 2035, EMS in Maine is understood, valued, positioned, structured, owned, resourced and staffed in a manner that is long-term reliable and sustainable, and that is a true EMS system of care, admired locally, nationally and internationally for its best-for-patient quality, innovation and efficiency, and its attention to both the patient and clinician experience.

Achieving this required a fundamental shift in thinking, culture, planning, positioning and how EMS was perceived by the public, healthcare, payers and public officials. This shift demanded a proactive approach, leadership at all levels, collaboration, continuous planning, creativity, compromise, innovation and an openness to new approaches.

A hallmark of this system is its fierce focus on collaboration, teamwork and mutual support.

In 2035, the EMS system is a high-functioning group of public, private and governmental entities that effectively collaborate in the planning, development and distribution of EMS resources to meet the EMS needs of all Mainers and visitors (regardless of location and geography). The system is fully integrated into community systems of care and is valued as a partner in these systems. A hallmark

of this system is its fierce focus on collaboration, teamwork and mutual support. The foremost concern is to maintain the effectiveness, efficiency and strength of the system.

The EMS system has obtained the attention, understanding and ongoing public education and support necessary to ensure it is viewed at all levels of government as an essential service and common good. This view has led to the responsibility for the local provision of EMS to be designated in a manner that ensures reliable local services and encourages collaboration and efficiency. Service areas are designated, protected and regulated in a manner that assures service delivery but is not unduly burdensome for agencies delivering services. Patient movement (IFT) throughout the state is efficiently coordinated through a centralized transfer center, and the responsibility for these services is delineated fairly.

The full and true cost of providing all aspects of the EMS system, including the cost of readiness (especially in rural areas), is understood and widely known. The EMS system's full and true costs are funded appropriately, much like other essential services such as law enforcement, public health, public works and education. The funding of EMS is appropriately shared and neither places a burden on the EMS professionals

providing services nor on small rural populations with limited resources.

The EMS clinician experience is a top priority of the EMS system. This experience is positive, engaging and retaining, recognizing that historically, EMS was made viable and low cost through the sacrifice of clinicians and limited extrinsic rewards. In 2035, the system employment value proposition is consistent with the growing demands of the role; the stress, risks and responsibilities of the role; and the growing expectations for knowledge, skills and professionalism. The extrinsic rewards of this employment value proposition include opportunities for growth, development and advancement, and retirement opportunities that match those of other public safety personnel. All clinicians experience a work environment, and provide a care setting, that is inclusive and unbiased.

The EMS system is proactively engaged in continuous, data-driven and system-wide workforce planning that is the result of a deep understanding of supply, demand, pipelines and turnover. Workforce planning ensures there is a steady supply of the right people with the right skills to meet system needs. This includes the development and support of the education and training institutions serving EMS. Planning ensures that the workforce reflects the diversity of Maine's population.

Recognizing the operational delivery of EMS as a local function, the EMS system of 2035 has provided local communities with the knowledge, evaluation and guidance to collaboratively develop sustainable EMS delivery models and morph unsustainable models into sustainable ones. All of this is accomplished in a manner that meets local needs and honors the historical service provided by local services.

In 2035, EMS at the state government level is structured to be effective in system development, leadership and planning, and in system regulation. The system development, leadership and planning functions are separate from the regulatory function.

EMS in Maine has achieved a consistent level of clinical quality that is data-driven, clinician-friendly and supported by robust educational opportunities.

Honoring Maine's large geographic footprint and the differences in demographics, population health and operational needs, EMS in Maine is divided into regions. These regions provide effective representation for individual personnel and for local agencies through effective regional councils. These regions each have representation on a statewide EMS advisory board or council. Services' unique regional needs, communication and representation are

met through a combination of state and regional resources.

In 2035, EMS in Maine has achieved a consistent level of clinical quality that is data-driven, clinician-friendly and supported by robust educational opportunities. Clinical care is led and overseen by a fulltime State Medical Director and an active and collaborative cohort of regional and agency medical directors. Quality assurance and improvement (QA/QI) have been destigmatized and untangled from disciplinary mechanisms. QA/QI is efficient and does not create unnecessary burdens or redundancies. Clinicians are performing at the top of their scopes of practice, and EMS in Maine continues to expand its

capacity to care for complex patients and support the healthcare system.

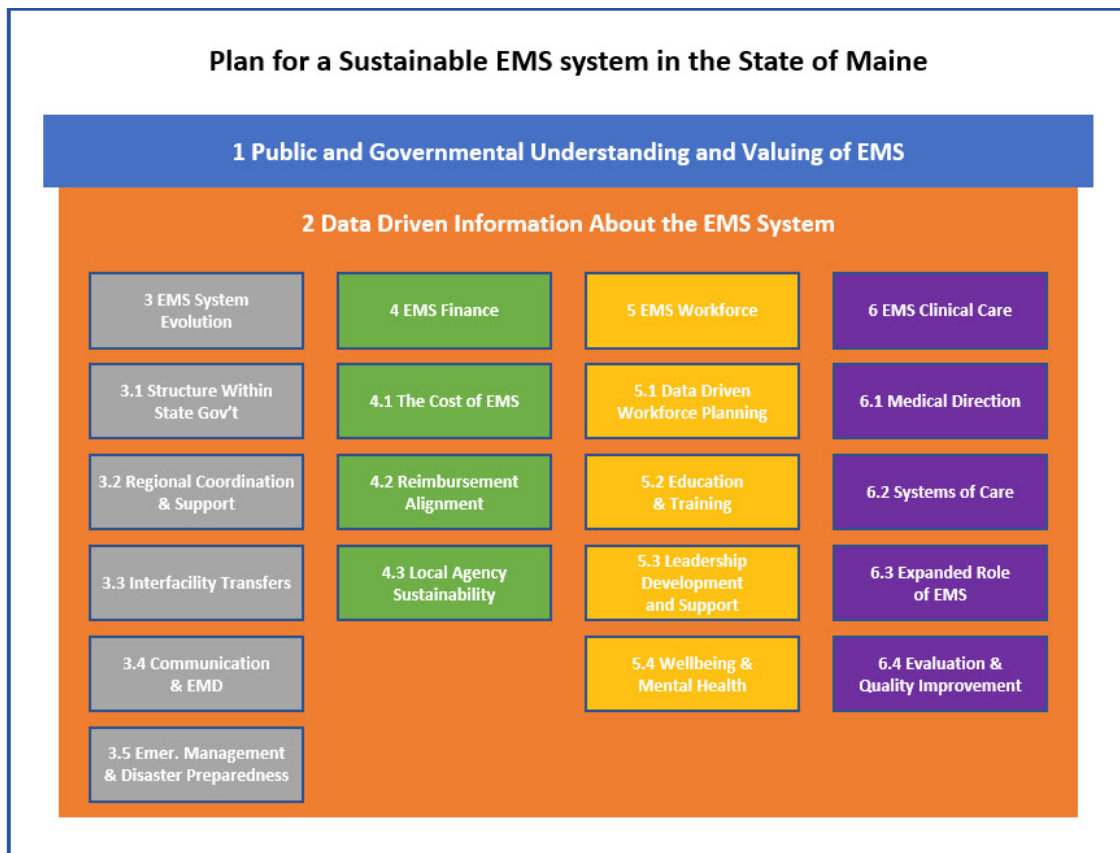
Maine's vast rurality, and the need for best-possible care for residents and visitors when distances and time are important, has led to the creation of and support for a world-renowned rural EMS clinical delivery system. This system constitutes an innovative, tiered approach to the delivery of rural EMS, focused on providing the correct care, at the correct time, from the correct clinician level. This system is a result of system-wide planning in which Maine is effectively and efficiently expanding, as well as using the full clinical scope of, its EMS licensure levels, including ongoing development of community paramedic concepts.

Plan Elements

Achieving this vision will require significant action in six key areas:

1. Public and Governmental Understanding and Valuing of EMS
2. Data-driven Information about the EMS system
3. EMS System Evolution
4. EMS Finance
5. EMS Workforce
6. EMS Clinical Care

Each of these elements is described below in terms of what is envisioned in 2035, why this element matters now, and the milestones and markers of success that indicate each element has been achieved. The first element (Public and Governmental Understanding and Valuing of EMS) is an umbrella condition upon which the success of all of the other areas depends. Without public and governmental understanding and valuing of EMS, the EMS system will continue to struggle to be sustainable. The second element (Data-driven Information about the EMS System) operates behind everything else in the plan. Every facet of the EMS system depends on decision-making based on information derived from reliable data.



1. Public and Governmental Understanding and Valuing of EMS

Where We Want to Be

In 2035 EMS in Maine garners the attention needed to thrive and deliver the services and clinical care Mainers expect. EMS is not taken for granted. Residents and government officials regularly advocate for EMS. EMS is viewed and funded as a vital common good.¹ This occurs because of ongoing efforts to inform, promote, educate and create broad awareness and shared knowledge about the EMS system, its value, the varieties of delivery models and the real and full costs of providing EMS. EMS leaders and clinicians, as well as residents and government officials, view, understand and value EMS as they do law enforcement, the fire service, public works, public health, public education, parks, emergency management and public safety answering points, etc.

Why This Element Matters

Maine's EMS system has achieved much and been successful; however, it has reached the limits of what it can do on its own. It needs a new level of attention and support from the public and government. This attention and support must be commensurate with the mission of the EMS system. Without an increased understanding of EMS, it is unlikely the needed resources will be provided. Ensuring public and governmental understanding and valuing of EMS is essential to the success of this plan.

The Milestones or Markers of Our Success

- a. EMS organizations, associations, agencies and clinicians across Maine have united to tell a single, powerful story about EMS and its value, cost and needs.
- b. The EMS system continues to develop talking points that ensure consistent messaging is used whenever EMS is discussed in public and governmental settings.
- c. EMS stakeholders always capitalize on current issues and events to deepen the public's understanding EMS, including what it does and its value, costs and needs.
- d. Government officials are continuously informed and educated about the EMS system.
- e. Residents of Maine understand the value of EMS, do not take EMS for granted and proactively advocate for EMS.

¹ "In ordinary political discourse, the 'common good' refers to those facilities—whether material, cultural or institutional—that the members of a community provide to all members in order to fulfill a relational obligation they all have to care for certain interests that they have in common. Some canonical examples of the common good in a modern liberal democracy include: the road system; public parks; police protection and public safety; courts and the judicial system; public schools; museums and cultural institutions; public transportation; civil liberties, such as the freedom of speech and the freedom of association; the system of property; clean air and clean water; and national defense." From Hussain, Waheed, "The Common Good," *The Stanford Encyclopedia of Philosophy* (Spring 2018 Edition), Edward N. Zalta (ed.), <https://plato.stanford.edu/entries/common-good/>.

2. Data-driven Information about the EMS System

Where We Want to Be

In 2035 EMS in Maine is continuously improved by data-driven decision-making using trusted information. The ongoing reliability, sustainability and quality of the EMS system is dependent upon accurate information from every facet of the EMS system. A clear “why” about data and information has been established. Data-driven information is used to address the leading system issues, guide improvement and support ongoing research. Stakeholders throughout the system value data-gathering processes. Clinicians are not asked to input irrelevant data. A robust, integrated data system seamlessly connects EMS with the larger healthcare system and provides and receives back valuable clinical information about EMS clinical care, from call to long-term outcome. Operational EMS is continuously provided with valuable information about system operations, including response, resources deployment, resource location, work load and costs. Because data systems continue to demonstrate value, education on data, information and data collection is routine and accurate throughout the EMS system.

Why This Element Matters

As the EMS system continues to evolve (and especially in the areas of workforce, finance and clinical care), it must be able to justify decisions, costs and change with evidence and information that are rooted in data.

The Milestones or Markers of Our Success

- a. Data collection is broadly understood and valued as necessary for improvement throughout the EMS system. Anecdotal reporting and qualitative data are supplemented by quantitative data.
- b. Attention, funding, staffing and technology have been added to appropriately resource information efforts and systems. The EMS Bureau, the Regions and the entire EMS system have the technology and technological support needed to appropriately collect and analyze data.
- c. Data-driven information is actually used to make informed decisions at all levels.
- d. Clinicians’ data entry time and efforts are respected.
- e. There is robust data sharing between primary and secondary PSAPs, dispatch centers and EMS agencies, and data sharing is used to monitor and improve EMS, PSAP and dispatch center operations.
- f. EMS patient care reports are connected to electronic health records and provide a feedback loop to appropriately evaluate patient outcomes at both the EMS and EMD level.
- g. Data-gathering and analysis are funded and staffed appropriately.
- h. All ambulances in Maine have connectivity and equipment to allow for the real-time transference of information across the healthcare system.

2. Data-driven Information about the EMS System

- i. There is system-wide sharing of CAD data and real-time monitoring for best-possible resource coordination, including 9-1-1 and IFTs.
- j. EMS data and information is used to monitor public health issues including bio-surveillance.
- k. Systems are in place to accurately capture financial data and guide cost reporting.
- l. Systems have been created to accurately capture workforce data.
- m. The EMS system is actively engaged in conducting and supporting EMS research.

3. EMS System Evolution

Where We Want to Be

In 2035, the EMS system continues to become more collaborative, interdependent, collectively systematic and synergistic. EMS is viewed as a statewide system, not simply a collection of separate, local entities. Planning, coordination and regulation take a systems approach. This system is committed to delivering the best care and service for all Maine's residents and visitors and is considered to be only as strong as its weakest link. It is made up of a high-functioning group of public, private and governmental entities that effectively collaborate in planning how the system functions and the development, deployment and distribution of EMS resources. All entities recognize their mutual dependence on each other. System evaluation, planning and improvement are continuous. The delivery of 9-1-1 services, IFT services and expanded scope services continues to benefit from system-wide collaboration. EMS is viewed as part of the overarching healthcare infrastructure and part of healthcare and systems of care.

Why This Element Matters

Systems are dynamic and always changing. Whether they evolve or devolve depends on proactive, purposeful and continuous system attention. It is imperative that there is a proactive effort to guide the evolution of the EMS system to meet the emerging needs.

The Milestones or Markers of Our Success

- a. EMS leaders across Maine view EMS as a system focused on continuous collaboration with the goal of meeting the needs of Maine.
- b. The EMS Bureau regularly studies and evaluates EMS as a system to inform decisions that impact the system.
- c. System planning and development are continuous and prioritized; these processes are led by the Bureau and Board of EMS and are inclusive of Regional Councils and a broad array of entities and stakeholders, including healthcare systems, healthcare facilities, emergency management, public safety, public health and communications.
- d. Responsibility for ensuring EMS is provided to all communities and geographic areas has been designated to counties by Maine's Legislature.² Counties are provided with the knowledge, expertise and support to fulfill this responsibility.
- e. Regional coordination fosters strategic collaboration between local agencies.

² The Board of EMS endorsed an initiative to have emergency medical services recognized as essential services at the county-level throughout the State of Maine. See Maine Board of Emergency Medical Services. (2021, December 1). *Resolution 2021-12-01-01: Support for Emergency Medical Services as an Essential Service in Maine*. <https://www.maine.gov/ems/sites/maine.gov/ems/files/inline-files/2021-12-01-01-MEMS-Resolution-RE-Essential-Service-Executed.pdf>.

3. EMS System Evolution

- f. The EMS system ensures that service areas are owned by specific agencies.
- g. Agencies maintain equitable and effective mutual aid agreements.
- h. Feedback is continuously exchanged between the various parts of the system to ensure EMS resources are efficiently deployed throughout the state and used in delivering the best care and service possible.
- i. System collaboration has reduced the use of 9-1-1 response for non-emergencies, and effective alternative resources have been developed and funded to meet unplanned out-of-hospital medical needs.
- j. Specific evolution has occurred in clarifying and strengthening EMS's place and structure in government, communication and EMD effectiveness, coordination of interfacility transfers, regional coordination and support, and emergency management and disaster preparedness.

3.1 Structure Within Government

Where We Want to Be

In 2035 EMS is structured and led within government to “promote and provide for a comprehensive and effective emergency medical services system to ensure optimum patient care.”³ EMS system leadership, planning, development and regulation are structured to provide maximum support for ongoing system evolution, ensuring the public is protected and served by reliable, sustainable and quality EMS. The structure includes significant local agency and personnel representation and ensures clear lines of communication between state EMS activities and the frontline provision of EMS. The structure provides a pathway to address current and emerging issues while maintaining efficacy and efficiencies.

Why This Element Matters

Ongoing EMS system evolution depends on the agility of the processes and the structures that develop and regulate the system. A structure is needed that can quickly address issues; ensure all views are represented and decouple personnel regulation from system development, guidance and planning. The EMS Bureau must be structured, resourced and staffed in a manner that matches its mission. Local clinicians and agencies must have true representation and be appropriately supported with direct communication and timely action.

The Milestones or Markers of Our Success

- a. The Bureau of EMS is positioned, empowered, funded and staffed to meet its mission of being “responsible for the coordination and integration of all state activities concerning emergency medical services and the overall planning, evaluation, coordination, facilitation and regulation of emergency medical services system.”⁴
- b. The positioning, empowerment, funding and staffing of the EMS Bureau are sustainable.
- c. The Bureau of EMS has a balanced and collaborative relationship with an EMS Board that provides strategic guidance, checks and balances and accountability across the statewide structure and in rule-making.
- d. There is clear delineation between system planning and the regulation and licensing of personnel and entities.
- e. An EMS professional licensing board is created that regulates personnel licensing rules, conducts investigations and disciplinary/administrative hearings and proposes personnel licensing rules. The Bureau of EMS regulates agencies.

³ See Maine Legislature. (2022). *Title 32, Chapter 2-B: Maine Emergency Medical Services Act of 1982*. <https://www.mainelegislature.org/legis/statutes/32/title32ch2-Bsec0.html>.

⁴ Ibid.

3.1 Structure Within Government

- f. The EMS Board is small and agile with nine members representing EMS regions and key stakeholder groups. It provides guidance on EMS system planning and development, provides representative input from various EMS stakeholders and provides a check and balance in rule-making.
- g. The EMS Board has the authority to develop and submit legislation directly to the legislature.
- h. Independent Regional Councils made up of representatives of local clinicians and local agencies meet regularly and effectively provide regional representation for agencies and personnel on the EMS Board, to voice local issues, needs and opportunities.
- i. A State Medical Director is a fulltime EMS Bureau employee and oversees all aspects of clinical care and clinical care development.
- j. The 1982 EMS Act and other statutes and rules are updated to accomplish the above.

3.2 Regional Coordination and Support

Where We Want to Be

Local clinicians, EMS agencies, EMDs and other local EMS stakeholders have an effective voice in the statewide EMS system and experience effective local and state support. Their unique needs, opportunities, challenges and concerns are regularly heard and addressed. This is accomplished through four EMS Regions⁵ with robust regional structures that include: true representative regional councils that meet regularly; funded regional offices staffed by state employees who provide coordination, information, facilitation, guidance, outreach, compliance and clear and regular communication between all facets of the EMS system; regional medical direction; and quality improvement guidance. The regional structure promotes EMS reliability, sustainability and quality by helping local entities understand expectations, meet regulations, collaborate, develop efficiencies and address challenges.

Why This Element Matters

Maine's large geographic footprint creates unique regional issues. Local clinicians and agencies must have an effective means for their issues to be addressed in true representative forums, and they must have a clear voice in regional planning. Local clinicians and agencies must also be supported by empowered personnel in their region who can effectively provide communication, access to resources, support, guidance and address issues related to rules, accountability and credentialing and licensure.

The Milestones or Markers of Our Success

- a. Regional councils that are truly representative and effective have been established and provide input on regional needs and goals, medical direction, operational collaboration and quality improvement.
- b. Regional offices are established in each geographic region and are appropriately staffed and funded.
- c. Local EMS personnel and agencies experience effective support and have known resources to turn to.
- d. Communication is clear, timely and effective between the Bureau of EMS, the statewide system and local agencies and personnel.
- e. Cross agency partnerships and collaboration are successful and effective.
- f. Agencies have ready access to guidance and support in addressing operational challenges, regulatory questions, workforce issues, medical direction, continuing education, QA/QI and wellbeing programming.

⁵ On September 7, 2022, the Board of EMS approved a motion to pursue a four (4) Region model and direct the Rules Committee to draft rules that direct the Regional Councils and Operations in accordance with this model.

3.3 Interfacility Transports

Where We Want to Be

In 2035 interfacility transport (IFT) is viewed as a distinct, vital and necessary element of an optimally performing EMS system. IFT is coordinated statewide through a Centralized Transfer Center (CTC) that is the result of broad collaboration between healthcare systems, healthcare facilities and EMS agencies. Data and information about transfer volumes, locations, necessity, destinations, clinical care and other specialized care are used by the CTC in real-time to ensure resources are efficiently used. Patient and healthcare system needs are effectively met without eroding 9-1-1 capacity. Healthcare systems actively participate and share responsibility in supporting IFT and the CTC through funding, training opportunities and other resources.

Why This Element Matters

This is an opportunity to greatly strengthen the EMS system in Maine. IFTs are a growing national trend as healthcare systems regionalize specialties and hub and spoke structures increasingly necessitate the movement of patients to the appropriate care. Without increased coordination and collaboration IFTs will continue to stress the EMS system, erode 9-1-1 capacity, foster inefficiencies and provide less than optimal services to patients and healthcare systems.

The Milestones or Markers of Our Success

- a. IFT is viewed by EMS agencies, leaders, clinicians and healthcare systems as important and in need of systemwide study, support and coordination to ensure optimal system operation.
- b. IFTs and processes that deliver IFTs are studied and well understood in a manner that guides a statewide systems approach to IFT.
- c. Healthcare systems and facilities assume a shared responsibility for the coordination of IFTs through the creation, funding and ongoing support of a Centralized Transfer Center (CTC) to facilitate and coordinate a best possible delivery model of patient movement between healthcare facilities.
- d. A statewide IFT system is designed to maximize efficiency, efficacy and safety.
- e. The IFT system ensures the development of adequately prepared, competent and confident resources to meet critical care, pediatric and neonatal IFT needs.
- f. A licensure pathway for critical care transport has been created for both clinicians and agencies.
- g. Novel solutions have been developed to move patients that do not need traditional ambulance transportation.
- h. Data and information about all aspects of IFTs are gathered and analyzed with an eye on what is best for patients, healthcare systems and EMS clinician and agencies.

3.4 Communications and EMD

Where We Want to Be

In 2035 emergency communications and emergency medical dispatch (EMD) are at the center of optimizing the EMS system's response, resource use and outcomes. The EMS system's efficiency and effectiveness continuously improve because the system's status and resource use are managed by a complete and effective feedback loop and supported by quality data.

The continuous improvement is the result of: emergency communications centers and EMD telecommunicators being appropriately integrated into response planning; response plans that are designed to appropriately match the caller/patient's need with the best resource in a geographic region; uniform processing of calls across the state; EMD telecommunicators having a wide variety of emergency and non-emergency resources to draw on; telecommunicators being appropriately prepared and empowered to effectively match needs with resources; the availability of technology to continuously evaluate resource status and location in real time; the use of data elements through the entire continuum of care that are pulled together to gather reliable outcomes information; and the use of outcomes information to continuously improve outcomes, the system and resource use.

Why This Element Matters

EMD, telecommunicators and public safety answering points (PSAPs) are a vital hub of EMS system reliability, sustainability and quality. Collecting and using appropriate call and dispatch data and information allows for optimum system efficiency and ensures the right care is delivered to the patient at the right time.

The Milestones or Markers of Our Success

- a. Emergency communications, EMD telecommunicators, response plans and response data are viewed as integral to the EMS system's efficiency and patient outcomes.
- b. All of the various elements of the EMS system work together to create carefully crafted response plans aimed at maximizing efficient resource use and positive patient outcomes.
- c. There is increasing collaboration and increasing uniformity between call centers. Call processing is structured to match needs with the right resources, and the technology is available and utilized to support this mission.
- d. A variety of resources beyond EMS response are identified and available to meet the callers' needs. These include non-emergency resources such as mental health, nurse triage, social services, poison control, etc.
- e. EMD telecommunicators are prepared, resourced, authorized and empowered to match callers with the right resources.

3.4 Communications and EMD

- f. The data elements needed to evaluate and guide best-outcome response planning have been identified.
- g. The system has established a process for gathering and aggregating data elements from 9-1-1 call data, computer aided dispatch (CAD) systems, Maine EMS & Fire Incident Reporting System (MEFIRS) data and the various electronic health records (EHR) used by the healthcare systems.
- h. Outcomes information is used to continuously improve system response plans and resource use.

3.5 Emergency Management and Disaster Preparedness

Where We Want to Be

In 2035 the Maine EMS system is prepared and ready to meet any events that exceed the capacity of local resources. This preparation will allow the EMS system to be prepared and ready for any large-scale emergency, extraordinary event or disaster. The EMS system is no longer struggling to meet routine 9-1-1 and IFT demands, and therefore has the capacity, leadership, personnel and funding to appropriately prepare for large-scale emergencies and disasters. Planning is led at a regional level and is fully integrated with statewide emergency planning and regional healthcare coalitions. EMS in Maine is viewed as a key stakeholder in emergency management and disaster planning and has a respected place in all planning activities. Local agencies and clinicians are appropriately prepared and resourced for these activities.

Why This Element Matters

EMS must cultivate system resilience regardless of the size of the event. Involvement as a primary stakeholder in emergency management and disaster planning creates a more resilient system.

The Milestones or Markers of Our Success

- a. All facets of the system actively plan for any incident, event or situation that will exceed local capacity. This planning is continuous.
- b. EMS throughout Maine has an equal part in preparation, planning and response.
- c. EMS throughout Maine is involved in disaster mitigation and recovery.
- d. EMS throughout Maine is considered a valid and valued resource in any disaster
- e. The planning for patient movement in disasters is integrated with the overall healthcare system.
- f. EMS is cognizant of and prepared to respond to the disasters that are the result of climate change.

4. EMS Finance

Where We Want to Be

In 2035 Maine's EMS system is fully and sustainably funded. The system no longer operates from a place of scarcity. EMS is viewed, understood and valued as an essential service and common good that must be funded in a manner that is commensurate with its mission. Costs and revenue sources are understood. The sustainability of EMS is no longer dependent upon the subsidy of donated (volunteer) and low-paid labor. The funding of EMS is a focus accompanying all discussions at every level. Funding comes from a variety of sources and ensures EMS is sustainable and the financial burden is appropriately shared. The public, communities, governments and healthcare systems expect to support EMS.

Why This Element Matters

Historically EMS has operated in an environment of scarcity and without the financial resources to make EMS truly sustainable. Historically EMS has been made sustainable through the sacrifice and generosity of EMS clinicians and other EMS professionals.

The Milestones or Markers of Our Success

- a. Government and the public are curious about EMS finances, and reliable information is available about EMS finances.
- b. EMS is viewed as a common good, and local communities expect to subsidize EMS as needed.
- c. The operational delivery of EMS throughout the state is sustainably funded, including the costs of readiness, non-transport, indigent care and interfacility transport.
- d. Operational funding comes from a variety of sources including transport revenues, local tax subsidies, local monies and healthcare systems.
- e. System elements beyond response, clinical care and transport are funded. This includes funding for: administration, leadership and supervision; planning, development and regulation; medical direction and evaluation; leadership development and support; initial and ongoing clinician education and training; statewide workforce planning and workforce development endeavors; expanded scope endeavors (community paramedic and integration with healthcare and public health); data collection and analysis; communication systems including public access, dispatch and EMD; public education and prevention; and mental fitness programming for clinicians and EMDs.
- f. EMS clinicians are appropriately compensated and no longer expected to subsidize EMS. Where volunteers (clinicians paid less than regular wages) are used, they are used appropriately and have an intrinsically rewarding experience.
- g. The EMS system has financial reserves to deal with the management of disasters and crises.
- h. Funding for the Bureau of EMS and the EMS Regions matches the mission and expectations for the services they provide.

4. EMS Finance

- i. The EMS system has a process for identifying and addressing agencies and areas experiencing a financial crisis. Mechanisms are in place to ensure the system is not weakened by financial crisis. Because the EMS system is integrated and interdependent, it is continuously undergoing self-evaluation, identifying entities that lack sustainability and educating them about long-term viability as well as preparing other components of the system for future challenges. This has the effect of increasing overall system resiliency.
- j. Transport revenues have been maximized, and local EMS agencies have an effective voice in negotiations with third party payers and with healthcare systems that rely on interfacility transports.

4.1 The Cost of EMS

Where We Want to Be

In 2035 it is recognized that sustainable funding of EMS necessitates an accurate and ongoing accounting for the full costs of EMS. The costs of all elements such as administration, the readiness of 24/7 operations, medical direction, quality assurance and improvement, initial and continuing education and training, employee turnover, vehicle maintenance, dispatch and communications, etc. have been accurately quantified and are known. Costs are no longer obscured by a lack of accounting for donated labor or below-living-wage labor. Agencies know how to quantify their costs including the costs of preparedness, response, treatment and transport, as well as all overhead. Agency financial accounting includes an understanding of all revenue sources including reimbursement for services, tax subsidies, other public monies, grants and donations.

Why This Element Matters

EMS system finance must be guided by the full and true costs of delivering these services. Without broad and accurate cost reporting, EMS will continue to be challenged in developing sustainable revenues.

The Milestones or Markers of Our Success

- a. The full and true costs of providing operational EMS are known.
- b. Local agencies and governments are continuously educated in how to calculate the full and true costs of providing operational EMS. Tools for financial accounting are readily available.
- c. The full and true costs of EMS are utilized to appropriately establish revenue sources to fund EMS.
- d. There is transparency regarding the total finances of each agency, including costs and revenues.
- e. Local agencies are expected to report costs, and the EMS Bureau has the resources and staff to aid local agencies in calculating cost reporting.
- f. Any funds for operational EMS provided by the state should never exceed the median cost of providing services.

4.2 Reimbursement Alignment

Where We Want to Be

In 2035 the Maine EMS system has maximized the revenue local EMS agencies collect in reimbursement from private insurance, Medicare, Medicaid and other payers. This maximization is the result of accurate cost reporting, the accurate documentation of services, advocacy, a deep understanding of the billing process and taking full advantage of available reimbursements.

Why This Element Matters

To be sustainable EMS must maximize reimbursement revenues and therefore must continually place pressure on payers.

The Milestones or Markers of Our Success

- a. EMS has a clear voice and interacts with payers through the effective advocacy efforts of associations, groups, agencies or individuals.
- b. Agency leaders are continuously educated in EMS finance and the intricacies of EMS reimbursement. This will be an important part of EMS leadership development.
- c. The full and true costs of providing EMS are continuously calculated and accounted for. These must be communicated in a manner that fosters a genuine understanding by government and the public about the full and true costs of providing EMS.
- d. EMS clinicians understand the value and importance of their documentation in cost recovery and are consistent in collecting appropriate data. Initial and continuing education for clinicians heavily emphasize the importance of documentation and teach clinicians how to document well.
- e. EMS stakeholders continue to advocate for reimbursement that accounts for the cost of providing EMS.

4.3 Local Agency Sustainability

Where We Want to Be

In 2035 rural communities and low volume areas continue to evolve EMS operations that are appropriately staffed and financially sustainable. Rural communities and low volume areas have help in moving from unsustainable EMS delivery models to sustainable delivery models. The help comes in the form of a process that uses EMS sustainability experts to guide communities moving from unsustainability to sustainability. The process aids communities in: determining whether their current model is sustainable; calculating the full costs of delivering EMS in their community; providing information about various delivery models; determining what the community wants, needs and what potential resources are available; and providing guidance in navigating the change process. This process is made available through state funding.

Why This Element Matters

Many rural communities and low volume areas and their agency leaders may not possess the resources, knowledge and skills needed to lead a change from an unsustainable model to a sustainable model.

The Milestones or Markers of Our Success

- a. Wide acceptance that the delivery of operational EMS in Maine will continue to evolve and change to meet needs and that some models will not be sustainable long-term.
- b. The Maine State Legislature continues to appropriate adequate funding for grants to help rural communities with EMS change.
- c. The Informed Community Self Determination process and similar processes are advocated throughout Maine.
- d. Experts in rural EMS are developed, and the process continues to evolve as it finds success in Maine communities.
- e. Models of successful evolution and change are identified and recognized.

5. EMS Workforce

Where We Want to Be

In 2035 Maine has enough EMS clinicians, EMDs, supervisors, managers, leaders, administrative staff, educators, quality personnel, vehicle service technicians and all other EMS related professions. The experience of the EMS workforce is a top priority of the EMS system. This experience is positive, engaging and retaining. This is the result of attending to work conditions, organizational culture, the quality of leaders, appropriate extrinsic rewards, a genuine career ladder and retirement programs. EMS is no longer made sustainable and inexpensive for the public through the sacrifice of the workforce. The EMS system and its component agencies' employment value propositions are consistent with the growing demands of the role; the stress, risks and responsibilities of the role; and the growing expectations for knowledge, skills and professionalism. The extrinsic rewards of this employment value proposition include opportunities for growth, development and advancement, and retirement opportunities that match those of other healthcare and public safety professionals. All persons working and interacting with EMS experience a work environment, and provide a care setting, that is inclusive, equitable, unbiased and safe.

Why This Element Matters

Without a workforce that is motivated, prepared, healthy, safe and appropriately rewarded it is impossible to have an EMS system that is long-term reliable and sustainable and able to deliver best possible quality. Workforce is one of the most important challenges facing EMS.

The Milestones or Markers of Our Success

- a. The EMS clinician experience is a systemwide priority. It is continuously studied and evaluated, and changes are made to improve the lived experience of working in EMS.
- b. The specific workforce needs of the EMS system have been identified, quantified and detailed.
- c. The employment value proposition (the extrinsic and intrinsic rewards, career opportunities and retirement) appropriately reflects the demands of the role and appeals to an emerging generation of potential workers.
- d. The EMS career ladder is known, and the advancement opportunities provide a clear path.
- e. Organizational culture and the quality of leadership and management have been connected to retention and recruitment.
- f. The EMS workforce report high levels of satisfaction.
- g. EMS clinicians actively spread the word and recommend EMS as a positive and worthy career choice.

5.1 Data-driven Workforce Planning

Where We Want to Be

In 2035 the EMS system has accurate and actionable information about the EMS workforce. A proactive and ongoing data-driven, evidence-based approach to workforce planning is led by the Bureau of EMS and utilized by the EMS Regions, local agencies and communities. This process collects detailed data and information about the numbers and certification/licensure levels of needed workers, shortages and the location of shortages, the demand for workers, causes of turnover, the supply of workers and the pipeline feeding the supply, education and training issues, working conditions, compensation and benefits, the entire employment value proposition and developing workforce trends. This information is turned into actionable plans, tools and activities that support successful recruitment and retention.

Why This Element Matters

An evidence-based approach to EMS workforce planning and development is needed to predict the future supply of EMS workers and the demand for their services across the range of geographic service areas. All levels of EMS will benefit from taking a proactive approach to meeting future demand for workers, including volunteers. To be effective, workforce planning and development will require access to current and accurate EMS workforce data. Workforce planning is about ensuring EMS has the right number of people, with the right skills, in the right places, at the right time.⁶

The Milestones or Markers of Our Success

- a. Workforce planning expertise has been established within the Bureau of EMS with appropriate resources and staffing.
- b. EMS leaders and agencies are introduced to the concepts of workforce planning and the need for and importance of reliable data and information about the workforce.
- c. Detailed workforce data is collected at state, regional and agency levels, including: the number of currently active EMS related professionals;⁷ geographic distribution of workers; the number of EMS related professionals working multiple EMS jobs; the number of EMS related professionals needed; the gap between the supply of EMS related professionals and the needed number of EMS related professionals; the pipeline and development of new EMS related professionals; and issues impacting turnover and retention.
- d. The need, current supply, gap between need and supply and confounding factors are used to clarify the actual shortage of workers in plain numeric terms.

⁶ From the *Emergency Medical Services Workforce Agenda for the Future*, 2008. Page 26-29.

⁷ "EMS related professionals" refers to all EMS related staff including EMTs, EMRs, paramedics, community paramedics, nurses, medical directors, telecommunicators, EMDs, vehicle service technicians (VSTs), supervisors, managers, directors, educators, quality coordinators, administrative staff, billers and anyone associated with the support and delivery of EMS.

5.1 Data-driven Workforce Planning

- e. Volunteerism is continuously evaluated at an agency level. This includes defining what it means to be an active volunteer, quantifying the numbers of active volunteers, assessing volunteer availability, noting an absence of a schedule or schedule shortages, and the agency trends over time. All of this is used to predict agency sustainability.
- f. Systemwide predictions are made around future supply and demand based on data, information and emerging trends.
- g. The EMS employment value proposition is continuously studied, talked about and addressed state-wide. The employment value proposition includes compensation, benefits, retirement programming, career paths and ladders, advancement opportunities, the subjective intrinsic satisfiers and dissatisfiers, and the general wellbeing of the workforce.
- h. All of the above is regularly communicated throughout the EMS system to aid the EMS Regions in coordinating with local agencies in planning successful retention and recruitment strategies.
- i. There are a variety of career paths for clinicians and growing awareness about the capacity of paramedicine as a career field and path.

5.2 Education and Training

Where We Want to Be

In 2035 education and training are no longer just gateways to obtaining and keeping clinical and operational credentials but the pathway for the EMS system's future and a passport for each clinician's ongoing professional growth, development, and satisfaction. A clear distinction between education and training has been established. Not only do clinicians acquire the necessary skills and behaviors needed for their roles, a passion for knowledge and wisdom has been created that enriches the entire EMS system and its quest to improve and innovate. The quality of entry level training and education continues to be strong, locally available, affordable and adaptive to the needs of learners and Maine's geography. Education and training reach far beyond clinical and operational EMS and now includes leadership development, business administration, accounting, technology, improvement science, people and workforce management, research, and resilience and wellbeing. The EMS system has enough attention and support to have adequate educational sites, qualified educators, financial resources and technology to meet current and emerging needs. EMS education and training continues to develop in quality, availability, convenience and affordability.

Why This Element Matters

The quality of the EMS system depends on education and training of personnel at all levels of the system.

The Milestones or Markers of Our Success

- a. EMS education is valued by clinicians, employers, leaders and stakeholders as an essential component not only for clinical and operational competency but for every facet of the EMS system.
- b. EMS education (clinical, leadership and managerial) is available and accessible statewide, with a mechanism to provide appropriate funding for EMS education in Maine.
- c. EMS education is an essential component of a career ladder, and the ladder has been connected with clear paths and credentials.
- d. The academic development of leadership is recognized as essential, and programming for leadership development at all levels has been developed.
- e. Possession of EMS education and credentials (clinical, leadership and managerial) are required components of EMS organizational hiring.
- f. EMS education is valued as a career path. EMS clinicians wishing to expand their careers seek out education because of the multiple roles educators can fill.
- g. There is a state level organization, which is seated in the college system, dedicated to the education, training, professional development and credentialing of EMS instructors.

5.2 Education and Training

- h. There is a formal, outlined training and development pipeline for EMS instructors that is phased and encompasses all levels of EMS instruction.
- i. Participation in initial training for all levels is supported and not hampered by issues such as child care, lost wages and transportation. Funding for EMS education and training has become a systemwide priority.
- j. The system has sustainable ways to provide continuing education hours in a manner that delivers quality, effectiveness and convenience.

5.3 Leadership Development and Support

Where We Want to Be

In 2035 the EMS system has an extraordinary cadre of leaders at every level. It is widely accepted that the EMS system's sustainability depends on prepared and capable leaders. The development and credentialing of leaders receive as much attention and focus as the development and credentialing of clinicians. The EMS system has identified what is needed to develop effective EMS leaders at all levels. This knowledge results in robust programming for leadership development and the ongoing encouragement, growth and support of leaders. There are clear expectations for agency leaders to have formal leadership development, and a leadership credentialing process has been developed. Leadership has become an attractive career path and the EMS system is continually looking for and preparing the next leaders.

Why This Element Matters

Achieving the vision and plan described in this document will take strong, persistent and effective leaders at all levels. These leaders must have the appropriate experience, training, education, credentialing and support. As EMS continues to evolve in both complexity and importance, so must leadership development.

The Milestones or Markers of Our Success

- a. Capable and prepared leaders are viewed as essential to EMS system reliability, sustainability and quality.
- b. Learning leadership is no longer simply on the job, and the ability to lead is not assumed.
- c. Leadership education and development are expected of all personnel who have responsibilities for coordinating, supervising, managing, directing and leading any part of an agency or the system.
- d. A credentialing process has been developed, and leaders at all levels are expected to fulfill the specific competencies of the process.
- e. Foundational leadership education is provided by Maine's Community College System, and Maine's colleges, universities, associations, educational organizations and agencies provide continuing education for leaders and ongoing support.
- f. The EMS system is continuously developing the next generation of leaders and identifying a roadmap for EMS professionals as they advance in their careers to take on more administrative responsibilities.

5.4 Mental Fitness and Wellbeing

Where We Want to Be

In 2035 clinicians across Maine enjoy high levels of subjective wellbeing and know how to balance the challenges of EMS and living well. Sacrificing one's wellbeing for EMS is no longer expected, championed or modeled. Care for the wellbeing of clinicians has become a proactive effort and not merely reactive to big events or psychological breakdown. Attending to mental health has been normalized and is no longer stigmatized. Clinicians are prepared for the rigors of EMS and expected and motivated to cultivate mental fitness. Mental fitness, like physical fitness, is developed. Mental fitness programming is systemwide and encompasses the clinician experience from initial training through retirement. Clinicians participate because selfcare and caring for one another are expectations, and there is positive social pressure in each agency to do so. This results in high levels of clinician wellbeing, resilience and satisfaction, and low rates of breakdown, stress injury and psychopathology.

Why This Element Matters

How EMS clinicians experience their work matters to the sustainability of the system. Having clinicians who are mentally fit, resilient and prepared to support each other in cultivating wellbeing and caring for stress-related issues is not only humane, it is good for ensuring that EMS has a healthy and engaged workforce. Proactively investing in clinician wellbeing and work experience is increasingly a non-negotiable expectation of the emerging workforce.

The Milestones or Markers of Our Success

- a. The EMS system acknowledges EMS is a high risk, high stress and high responsibility occupation that demands more than a reactive and after-event response to support mental health.
- b. EMS agency leaders have been introduced to the concepts of mental fitness, subjective wellbeing and resilience as proactive measures to cultivate a better clinician experience.
- c. Systemwide mental fitness programming has been developed and is continuously taught through educational institutions, training programs and the EMS Regions.
- d. Clinicians are prepared for the inherent psychological challenges of EMS through mental fitness training that aids them in creating strong self-awareness and emotional awareness, resilience training, peer-to-peer support and organizational cultures that support living well and selfcare.
- e. Mental fitness training, development and support begin in initial EMS training programs and continue through one's entire career.
- f. Agencies have access to mental fitness training, and instructors and agency leaders are taught how to create organizational cultures that support wellbeing, are pro-selfcare and promote fitness, work/life balance and asking for help when needed.

5.4 Mental Fitness and Wellbeing

- g. The EMS system has identified mental health professionals who are first responder friendly and knowledgeable.
- h. CISM services continue, are expanded and are readily available throughout the EMS system.
- i. Peer support development, education and training have become standardized and readily available throughout the EMS system and are educational opportunities for clinicians interested in mental health, mental fitness and resilience.
- j. Rates of anxiety, depression, PTSD and suicide in EMS clinicians are equal to or lower than the national averages for the general public.

6. EMS Clinical Care

Where We Want to Be

In 2035 EMS clinical care is highly sensitive, agile and adaptive to existing and emerging conditions, diseases and opportunities. It proactively evolves scopes, protocols and clinician practice levels to deliver best-possible care.

Quality clinical care is continuously assured and improving throughout Maine, irrespective of geography. Improvement is driven by the pursuit of best practices, the evolving science, evidence-based medicine, research, ongoing clinical data analysis, outcomes data, feedback from clinicians, feedback from patients and families, feedback from medical directors and feedback from the larger healthcare community. All of this is filtered through a lens that considers the clinician experience, the patient experience, safety, costs and the resources and capacity of the EMS system and local agencies and clinicians.

Why This Element Matters

Since the creation of the EMS Act of 1982, ensuring “optimum patient care”⁸ has been a statutorily defined goal of all Maine EMS endeavors. In 40 years, that goal has not changed. However, the continuous evolution of medicine, clinical care, healthcare and the scientific medicine requires EMS in Maine prioritize the growth and development of EMS clinical practice.

The Milestones or Markers of Our Success

- a. Clinical improvement is continuous and reflected in: effective clinical evaluation and quality processes; the ongoing revision and evolution of protocols; the ongoing evolution of effective clinician education, skill development and maintenance (regardless of call volume); the evolution of clinical scopes, levels of practice and licensure levels; and innovation and evolution in the use of EMS clinical resources in the complete healthcare continuum.
- b. The process for protocol improvement/revision is effective and agile. It is informed by a multidiscipline approach that ensures protocols reflect current needs, capacity and the emerging science.
- c. Protocols are clinician friendly (clear and concise), have mechanisms to meet the clinical needs of every community and have been developed with clinical quality metrics in mind.
- d. The EMS system matches clinical care with needs in a manner that ensures the right clinical care is safely delivered by a competent clinician and in a timely manner regardless of geography, distance and population density.
- e. As a vital area of clinician competence and confidence, pediatric clinical care is continuously emphasized in education, evaluation, oversight, training and simulation.
- f. EMS clinical care and its capability is understood and supported by the public, government and the larger healthcare community.

⁸ From the Statement of Purpose in the Maine Emergency Medical Services Act of 1982
<https://www.mainelegislature.org/legis/statutes/32/title32sec81-A.html>

6.1 Medical Direction

Where We Want to Be

In 2035 EMS medical direction is a defined and essential role within the Maine EMS system at all levels. The engaged leadership of medical directors is integral to clinical development and quality throughout the EMS system and has become a major motivational and developmental element in the EMS clinician's experience. Gone are the days of a medical director being a minimally involved volunteer and ad hoc paper-signer. Medical directors are prepared, active and motivated and are involved and empowered by the agencies they serve.

Why This Element Matters

Clinical quality depends on clinical leadership. Medical direction is vital to the evolution and oversight of clinical care and the credibility of EMS within medicine and healthcare. Medical direction supports and facilitates the inclusion of EMS in medicine and the broader healthcare community and provides the EMS clinician the support and authority to practice.

The Milestones or Markers of Our Success

- a. Medical direction is led by a full-time state medical director and an associate medical director.
- b. Regions are supported by regional medical directors who support agency level medical directors and serve as the conduit from local medical directors to the state.
- c. All transporting agencies have active and engaged medical direction.
- d. Cohorts of medical directors have formed and work together to serve multiple local agencies in geographical areas, increasing continuity throughout the EMS system.
- e. Agency administrators and chiefs have a robust understanding of medical direction, its roles and responsibilities and its importance to clinical operations. They support this role and view the medical director as the agency's chief medical officer.
- f. The medical direction role and authority in each agency is clearly defined, with job descriptions, contracts, appropriate compensation and accountability.
- g. Each medical director's span of control is right-sized to allow for appropriate engagement and ensure the role is rewarding and satisfying for the medical director, agency leader and clinicians.
- h. Each medical director is appropriately prepared, has a command of evidence-based medicine and EMS protocols and protocol development and is proficient in the ongoing cyclical process that continuously uses clinical evaluation to drive clinician feedback, education, mentoring and skills development.
- i. Medical directors connect with frontline clinicians and notice, inspire and motivate ongoing clinical development, research, growth and exploration. Medical directors help clinicians fully realize the rewards of best-possible clinical care.

6.1 Medical Direction

- k. Medical directors are integral parts of system planning, development and integration, and work with each other to ensure EMS in Maine continues to develop as a cohesive system regionally and statewide. Because of their work in emergency departments, they are an effective bridge between EMS and healthcare.
- l. Medical control has become more centralized and delivered by appropriately prepared physicians who deliver meaningful support that is consistent, knowledgeable and accountable. Medical control has evolved to provide a range of services, including simply radio advice, telemedicine video support or even infield physician intercepts.

6.2 Systems of Care

Where We Want to Be

In 2035 EMS in Maine is fully integrated into the overall healthcare system, as evidenced by its inclusion and participation in robust systems of care for time-sensitive conditions. The Bureau of EMS continues to oversee the trauma system of care and is given statutory oversight over other EMS dependent systems of care such as stroke, STEMI, sepsis and out-of-hospital cardiac arrest. A robust system plan identifies healthcare facilities based on their capabilities to manage time-sensitive conditions including designations, data reporting, performance improvement and outcomes. EMS's role is universally acknowledged as a keystone component in the continuum of care.

Why This Element Matters

EMS is an essential element of time-sensitive systems of care.

The Milestones or Markers of Our Success

- a. There has been broad recognition of EMS's vital role in time-sensitive conditions such as trauma, stroke, sepsis, STEMI, out-of-hospital cardiac arrest, prenatal and perinatal conditions, pediatric care, organ and tissue donation and traumatic brain injury. This recognition includes EMD, initial response, treatment and communication, destinations and bypass, interfacility transfers and critical care transfers, and participation in data collection and registries.
- b. The Bureau of EMS has statutory oversight of the stroke, STEMI, sepsis and out-of-hospital cardiac arrest systems of care.
- c. A robust system plan identifies healthcare facilities based on their capabilities to manage time-sensitive conditions including designations, data reporting, performance improvement and outcomes.
- d. Standardized statewide order sets have been developed for interfacility movement of patients with time-sensitive conditions.
- e. EMS protocol development and education have been integrated with clinical experts in time-sensitive conditions.
- f. EMS clinicians have access to routine training and educational opportunities related to time-sensitive conditions.
- g. Registries have been established for trauma, stroke, STEMI, sepsis, and out-of-hospital cardiac arrest, and EMS and the larger healthcare system actively participate in these registries. Registries provide feedback to EMS clinicians on their patient's 30-day outcome.
- h. Performance matrices have been defined for time-sensitive conditions that allow for the appropriate QA/QI evaluation.
- i. EMS clinicians are included in registry reports and case reviews.
- j. Maine contributes to the national dialogue on systems of care particularly related to the rural environment.

6.3 Expanded Role of EMS

Where We Want to Be

In 2035 there is broad acceptance, appreciation and reimbursement for care and service outside the traditional emergency response and transport roles of EMS. Maine's EMS system continues to identify unmet healthcare needs that may benefit from EMS resources and for which EMS can develop the necessary knowledge, skills, competencies and reimbursement. Across Maine, many agencies have embraced mobile integrated health and community paramedicine as models to address unmet healthcare needs due to rurality and other social determinants of health. In furtherance of this, medical direction, a Board of Paramedicine, the EMS Board and regulatory oversight have all recognized the need to establish clear authority for EMS to meet certain needs without supplanting existing healthcare resources and infrastructure. Services provided under these provisions are fully reimbursed by payers, and the model for delivery is considered sustainable, effective and efficient by all involved. The Maine EMS system continues to support the expansion of these types of programs through pilot programs, education and training, quality assurance and ongoing evaluation and improvement.

Why This Element Matters

The efficiency and efficacy of Maine's overall healthcare structure are greatly improved by the full and expanded use of local EMS resources.

The Milestones or Markers of Our Success

- a. Payers of healthcare services value and recognize the potential efficiencies and are willing to pay to have EMS provide expanded services.
- b. Healthcare systems and primary care see mobile integrated health and community paramedicine as valuable, effective and efficient extensions of their services.
- c. The healthcare system understands and values mobile integrated health and community paramedicine as beneficial extensions of their services.
- d. Expanded EMS services such as mobile integrated health and community paramedicine are seen as valuable components of the overarching healthcare system and are not seen as competitive programming among existing components.
- e. The number of Mainers who have access to Mobile Integrated Health and community paramedicine continues to increase.
- f. The unnecessary use of emergency departments and 9-1-1 EMS response continues to decline.
- g. Mobile integrated health and community paramedicine models and programs are consistently receiving referrals from healthcare entities.

6.4 Evaluation and Quality Improvement

Where We Want to Be

In 2035 Quality Assurance/Quality Improvement (QA/QI) is a foundational component of the EMS culture and permeates every facet of the EMS system. QA/QI is enthusiastically embraced and sought by clinicians, EMDs, service leaders, medical directors and the broader healthcare community. Systemwide quality practices and measures are informed by data at all levels. Quality metrics are being gleaned from all levels of the EMS system, from call-taking and dispatch through patient discharge and the clinical outcome. These metrics are consistent, data-driven, clinician friendly and supported by robust learning, growth and development. Patients reliably receive the right care, at the right time, by the right clinician. QA/QI has been destigmatized and disentangled from disciplinary mechanisms. QA/QI is efficient and does not create unnecessary burdens or redundancies. Clinicians are performing at the top of their scopes of practice, and EMS in Maine continues to expand its capacity to care for complex patients and support the healthcare system. Clinical quality is led and overseen by the State Medical Director and an active and collaborative cohort of regional and agency medical directors. QA/QI practices are implemented by competent and motivated agency quality coordinators and are supported by the system in its entirety.

Why This Element Matters

Evaluation and quality improvement are vital to maintaining the highest possible quality of clinical care. This entails utilizing an iterative process (e.g., PDAC cycle) to evaluate new clinical interventions, current clinical performance and the outcomes of the patients that are served, and ultimately using evaluative data to analyze, verify and prioritize problems to be addressed through change and evolution of the EMS system.

The Milestones or Markers of Our Success

- a. QA/QI has become truly valued because the improvement process has been successfully applied to the top issues and concerns of clinicians, EMDs, service leaders, medical direction and the broader healthcare community.
- b. All clinicians are comfortable reporting errors and view reporting as a duty and an opportunity for growth.
- c. QA/QI has genuine and real accountability.
- d. There is a systemwide appreciation and understanding of quality assurance and improvement science at all levels, with education and training opportunities on how to do so.
- e. QA/QI is financially supported at all levels, including at the state level.
- f. The complete patient record, from CAD through hospital discharge, is available to support quality assurance and improvement initiatives as well as clinician and EMD performance.

6.4 Evaluation and Quality Improvement

- g. QA/QI is understood to entail much more than finding the bad apples. Quality assurance is truly about improving the quality of clinical care when it comes to meeting a known standard. Quality improvement is truly about emphasizing the importance of raising the standard and reducing the incidents of quality issues.
- h. There are innovative models to help local agencies meet QA/QI expectations including the possible use of outside contractors.
- i. All entities (EMS agencies and EMD centers) are accountable and have implemented robust evaluation plans that are routinely reviewed. Plans include specific metrics, methodologies, roles, responsibilities and pathways for bringing about meaningful, systemic changes within their organizations for the betterment of patient care.
- j. The EMS system has robust dashboards that provide accurate and actionable feedback on personal, agency and system performance.
- k. Clinicians have increased the accuracy of their field impressions and associated clinical treatment through robust outcomes feedback.
- l. QA/QI includes operational quality, ensuring response performance, the handling of IFTs and ensuring patients arrive at the right destination.
- m. QA/QI and education are inextricably connected with comprehensive feedback loops in place to ensure clinician competency and best practice.
- n. Agencies are adequately resourced to support QA/QI efforts and to connect and engage with clinical operations.
- o. Clinicians and EMDs see meaningful improvement that is the result of their involvement in the QA/QI process.
- p. QA/QI has been applied to resource deployment and ensures the efficient use of resources statewide.

Terms and Definitions

EMS in Maine	Describes the whole EMS system and the delivery of EMS, including all its various elements.
EMS System	All the various parts or elements that are associated with or integral to the development, planning, delivery, oversight, leadership, funding and evaluation of emergency medical services, mobile integrated healthcare and community paramedicine, as well as other services connected with emergency medical services.
The EMS Bureau	The state governmental office of EMS within the Department of Public Safety.
Maine EMS	A term that is commonly used to describe The Bureau of EMS and all the associated Boards and committees charged with the oversight and regulation of EMS in Maine.
Regional Councils	Representative bodies that are made up of clinicians and agency representatives from the region.
Regional EMS Offices	EMS offices located in the regions that are staffed by the EMS Bureau staff.
Interfacility Transfers (IFTs)	The movement or transportation of patients between two healthcare facilities.
Clinicians	Field providers of EMS including EMTs, EMRs, paramedics and nurses.
Agencies	Organizations that provide EMS in Maine including transporting and non-transporting organizations.
EMD	Emergency Medical Dispatch refers to a system that enhances services provided by Public Safety Answering Point. Emergency medical dispatchers are medically trained and certified call takers and dispatchers.
Cost Reporting	The collection, analysis and reporting of accurate cost data for the provision of EMS.
Medical Direction	Encompasses all aspects of physician oversight for clinical care provided in the EMS system.

Reliable	Means the system's deployed and available assets have the ability and capacity to respond to 100% of requests in a timely, patient/situation-appropriate and system-appropriate manner.
Sustainable	Speaks to the system having the workforce, financial resources, public support, leadership, structure, coordination and collaboration needed to be adaptive and innovative, inherently humane and safe, integrated and seamless, socially equitable, efficient, effective and long-term viable.
Quality	Quality refers to the degree to which the system increases the likelihood of a desired outcome that is consistent with the expectations of the populations served and current science and professional knowledge. Quality is accomplished through standards, expectations, education, training, evaluation, oversight and regulation.