# Vermont Emergency Medical Services System Assessment December 15, 2025



**Emergency Medical Services Advisory Committee Report** 

### **Executive Summary**

Vermont's EMS system is rooted in service, community values, and an unwavering commitment to ensuring that every person—regardless of geography—has access to reliable, equitable, and high-quality emergency medical care. Today, Vermont stands at a pivotal moment. With strategic investment, collaboration, and a shared vision, there is an opportunity to build a more coordinated and sustainable EMS system—one that strengthens the workforce, supports providers, and enhances patient care statewide. By embracing innovation and planning for long-term resiliency, Vermont can shape an EMS system that not only meets today's needs but also elevates the future of emergency medical care for generations to come.

The Vermont EMS assessment—compiled from statewide data collection, cost reports, and system surveys—reveals a complex and uneven landscape. Call volumes are rising, workforce shortages are worsening, and financial deficits are deepening. The total annual system cost is approximately \$98 million, but insurance reimbursement covers only \$53 million, leaving local taxes and volunteers to bridge a widening gap.

The recent passage of Act 157 of 2024, which formally designates EMS as an essential service, is an important policy milestone. However, without aligned funding, governance reform, and workforce investment, Vermont's EMS system cannot reliably continue to deliver equitable, high-quality emergency care to all residents.

## **Emergency Medical Services**

Emergency Medical Services is an integrated system of emergent and non-emergent practice of medicine in the out-of-hospital environment. This includes personnel and resources designed to assess, treat, and determine the appropriate disposition of patients with injury and illness and those in need of specialized care and safe transportation. EMS is a vital component of the healthcare, public health, and public safety systems.

### **Overall System Performance**

Vermont's Emergency Medical Services face significant challenges that compromise effectiveness and sustainability. Access to EMS varies widely across the state, with inconsistent service delivery, response times, and reliability from town to town. The system struggles with increasing call volumes that strain capacity, while emergency and non-emergency interfacility transportation remains unreliable in parts of the State.

Inadequate funding creates critical gaps in essential functions, including training, education, data collection, and medical direction. Additionally, the current infrastructure does not support Mobile Integrated Health (MIH) initiatives, limiting opportunities for more comprehensive community healthcare delivery.

Vermont's EMS system retains several core strengths despite growing pressures. The State benefits from a deeply committed workforce, many of whom volunteer their time to ensure neighbors receive emergency care. This community-based model reflects Vermont's values of service and mutual aid. The enactment of Act 157 of 2024 officially recognizes EMS as essential and signals a bipartisan commitment to systemic reform.

# **Key Findings**

Service levels, response times, staffing models and reliability vary significantly by town.

Emergency and non-emergency interfacility transportation resources are not consistently reliable in parts of the State.

EMS agencies operate with different revenue mixes, leading to notable funding gaps between agencies.

Inadequate funding creates gaps in training, education, data collection, and medical direction needed for system quality.

Until regulatory and funding models align with MIH delivery and costs, the current system cannot support MIH implementation.

### **Governance and System Structure**

The Vermont EMS system operates under a multi-tiered governance framework. The Office of Emergency Medical Services, housed within the Department of Health, serves as the state regulatory body providing oversight that includes licensing of services and personnel, conducting investigations, collecting system-wide data, developing training programs, and establishing clinical protocols. This centralized function supports and oversees 13 regional districts, which provide varying levels of local system oversight.

However, Vermont's 13-district system is not functioning consistently or sustainably. Districts operate without enforcement authority and face role ambiguity, resource constraints, and insufficient funding. This lack of adequate funding and support has resulted in insufficient physician medical oversight and assessment across the system. Many areas of Vermont rely on volunteer physicians to provide medical oversight, creating gaps in clinical guidance and quality assurance.

To evaluate the operational and financial characteristics of Vermont's EMS system, the committee analyzed four service delivery models. These models include regional EMS services, career fire department-based EMS, municipal services, and local service providers. The analysis examined each model's structure, funding sources, response capabilities, and staffing models.

#### 1. Regional EMS Services

Regional EMS services require the least local tax support and provide the majority of interfacility transport (IFT) work statewide. Response times to critical incidents are longer than fire-based systems but better than stand-alone municipal systems. These services use mixed staffing models, including full-time, part-time, and volunteer staff, with 79% providing paramedic services.

### 2. Career Fire Department-Based EMS

Career fire department-based EMS is the most expensive model, but it provides the shortest response times. These services offer very little IFT support, use 100% paid staff, and 100% provide paramedic service. Fire-based ambulance services have higher costs per call and per capita due to their additional fire suppression responsibilities.

#### 3. Municipal Services

Municipal services are slightly more dependent on local tax support than regional services, though less than fire-based models. Response times are higher than those of regional providers. Several services support IFT needs, but most do not. These services rely more on part-time and volunteer labor than regional providers, with 91% providing paramedic services.

#### 4. Local Service Providers

Local service providers are comparable to municipal services in cost, response time, and IFT work, but have slightly lower paramedic availability.

### **Key Findings**

Insufficient funding and support leave the system with inadequate physician medical oversight and assessment. Physician medical advisors (usually insufficiently compensated) provide medical oversight in many areas of Vermont.

Fragmented data across multiple systems creates data quality issues for the advisory committee, the Office of EMS, and leaders.

The manual data collection process used for this report is not viable moving forward.

Districts lack enforcement authority, role clarity, and sufficient funding.

The State EMS Office is understaffed and under resourced.

#### **Data Sources and Limitations**

The Vermont EMS Assessment faced significant data challenges that impacted the comprehensiveness and precision of the analysis. The assessment relied on a complex patchwork of information sources, including self-reporting surveys, Vermont EMS data systems, and publicly available information, because no unified system exists for collecting and storing EMS data. While the team made efforts to verify data with service leaders, they had to estimate some

information due to unavailable records. Additionally, reporting periods varied widely across services. Ground ambulance data covered the period from 2023 to 2025 and could be based on fiscal or calendar years, or a mix.

Furthermore, the analysis excluded first-response services from cost analyses due to insufficient data and a lack of verification. Cost calculations for services operating mixed business lines—such as fire departments providing both fire suppression and EMS—used a proportional allocation formula in which total organizational expenses were divided by the ratio of ground ambulance volume to total service volume.

Staffing projections were standardized under the assumption of one crew for every 1,200 calls, with each crew requiring nine full-time equivalents (FTE), 18 part-time personnel, or a combination thereof; however, this approach may overlook efficiencies based on actual service staffing or workload rather than theoretical estimates.

# **Key Findings**

Inconsistent data entry, inadequate collection tools, and manual processes fragment data, hindering accurate system monitoring and reliability measurement. Prioritizing data collection and analysis is essential.

The manual data collection process required for this report is not viable for ongoing EMS system needs.

Underfunding of Vermont's EMS records system results in insufficient and inconsistent data collection.

Insufficient financial resources and staffing limits the State's ability to gather accurate, actionable EMS data for planning and oversight.

Without an integrated, statewide computer-aided dispatch system, the State cannot prioritize time-sensitive 9-1-1 calls, monitor the system in real time, or effectively evaluate response data.

There is little data on training, education, and support.

Interfacility transport (IFT) data from hospitals is unavailable to this committee

### Statewide EMS Data

In 2024, Vermont's EMS system responded to approximately 100,000 911 calls, reflecting a 6% increase from the previous year. Of the 100,000 calls, 29,500 did not result in transport. Additionally, Interfacility transfers totaled 28,000, an 8% increase over the previous year.

• 911 Emergency Calls: ~100,000 (†6%) Non-Transport Calls: 29,500

• Interfacility Transfers: 28,000 (\gamma8%)

• Licensed Ambulance Services: 65 in-state, nine out-of-state

• Total System Cost: \$98 million

### **Financial Assessment**

Overall, the financial model is challenging and increasingly unsustainable. Nearly half of EMS agencies operate at a deficit, as reimbursement rates do not cover the actual costs of readiness. The total cost of Vermont-based ambulances is approximately \$98 million, funded by various sources:

• Insurance reimbursement: ~\$53 million (54% cost recovery rate)

• Local tax support: ~\$43 million

• Volunteer labor (valued): \$9.7 million

• Annual fundraising: ~\$1.2 million

• Provider taxes: ~\$1.4 million

Ambulance services pay provider taxes to the state, which then uses this revenue to leverage additional federal Medicaid funds. The system also relies on volunteer labor; however, declining volunteer availability and increasing requirements make this model increasingly unsustainable.

Service Type	Average Cost per Call Avg.	Per Capita Cost	Average Reimbursement per Transport	% of Staff Compensated
Fire-Based	\$1,168	\$189	\$476	100%
Municipal	\$801	\$57	\$561	43%
Regional	\$670	\$31	\$598	57%
Local	\$729	\$53	\$691	44%

# **Key Findings**

Inadequate ambulance reimbursement from Medicare and Medicaid forces towns to cover costs through property taxes, creating funding disparities across communities.

Medicare does not reimburse for patients who are treated yet not transported, creating a financial burden on services.

Act 157 of 2024 requires Medicaid reimbursement for certain non-transport calls but Medicare does not reimburse non-transport calls.

A reimbursement system needs to be created to support Mobile Integrated Health (MIH) services.

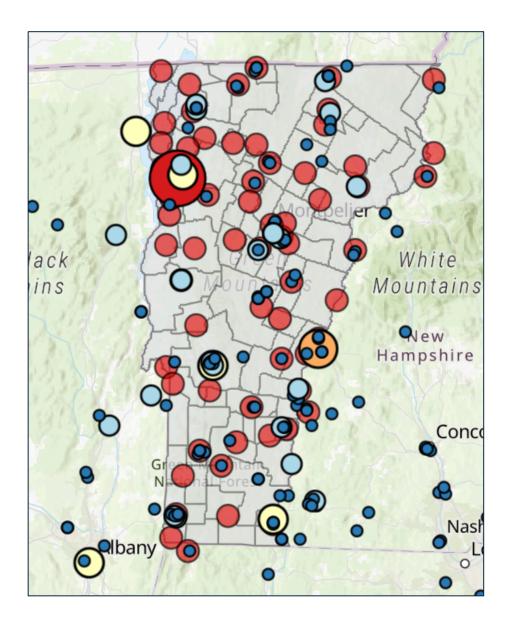
Vermont lacks mandatory, systematic state-level financial reporting for EMS agencies.

Volunteer availability is decreasing statewide.

Delivery costs vary significantly across agencies due to differences in size, staffing, geography, and governance.

# **Vermont Emergency Medical Services Map**

Click the hyperlink below to access the interactive map—Select any district to see detailed Vermont Emergency Medical Services data and statistics.



Vermont Ambulance Service Providers Explorer

### **System Structure and Service Delivery**

First responders provide initial emergency care in some areas of Vermont before ambulance arrival and are vital in rural settings for stabilizing patients. There are 90 licensed first response agencies throughout Vermont's communities, including 32 at the EMT level, 53 at the Advanced EMT level, and five at the paramedic level.

Ambulance services coordinate with first responders to provide advanced care and patient transport. There are 65 Vermont-based licensed ambulance services, supplemented by two out-of-state services with in-state operating locations and seven additional out-of-state services licensed to operate in Vermont. Vermont's ambulance services include 15 licensed at the Advanced Emergency Medical Technician (AEMT) level, 47 at the paramedic level, and 14 at the Critical Care Paramedic (CCP) level. One air ambulance service delivers specialized care for patients requiring the highest level of emergency transport. UVM Health and Dartmouth Health collaborate to provide air medical services throughout the region. Dartmouth staffs an air ambulance in both Lebanon and Manchester, NH. UVM Health staffs an air ambulance in Burlington, VT however, the aircraft is operated by Dartmouth Health and under their aviation vendor contract.

Several unique service models also exist, including two college-based services that provide coverage to their campuses and surrounding communities, one part-time ski area service, and one transfer-only service, reflecting the operational adaptability required to serve Vermont's varied landscape. Notably, additional out-of-state ambulance services are operating within Vermont's borders without Vermont licenses. Data on their activity levels within the state is not available.

While there is a perception that some agencies provide disproportionate mutual aid—when one service responds to calls in another service's coverage area—most Vermont ambulance agencies respond to calls in their primary service area over 80% of the time, often exceeding 90%. Available data does not distinguish whether mutual aid is needed because agencies are out of service or already on a call.

Additionally, Vermont currently lacks real-time dispatch visibility or Statewide coordination of unit availability. Dispatch systems fragment across districts, and no unified platform exists for monitoring performance or ensuring equitable response. The public safety telecommunications task force did extensive work evaluating the state system. The EMSAC supports the recommendations contained in their findings. Additional recommendations around Emergency Medical Dispatch (EMD) and communication with hospitals would be warranted.

# **Key Findings**

Vermont's ambulance services are supplemented by out-of-state providers, who will be required to report activity beginning in 2027.

First responder services provide initial patient care in Vermont's rural communities.

# **Average En Route and Arrival Time by District – First Response**

0	•	
District	Average Dispatch to En Route Time	Average Dispatch to Arrival Time
District 1	04:07 Minutes	12:43 Minutes
District 2	02:27 Minutes	11:01 Minutes
District 3	02:20 Minutes	07:59 Minutes
District 4	05:26 Minutes	13:33 Minutes
District 5	02:47 Minutes	21:43 Minutes
District 6	03:59 Minutes	10:43 Minutes
District 7	03:54 Minutes	12:00 Minutes
District 8	02:34 Minutes	14:46 Minutes
District 9	02:43 Minutes	11:43 Minutes
District 10	01:20 Minutes	10:34 Minutes
District 11	03:46 Minutes	10:57 Minutes
District 12	01:56 Minutes	08:52 Minutes
District 13	00:41 Minutes	09:35 Minutes

# Average En Route and Arrival Time by District – Ambulance

District	Average Dispatch to En Route Time	Average Dispatch to Arrival Time
District 1	07:73 Minutes	17:30 Minutes
District 2	02:75 Minutes	11:38 Minutes
District 3	02:63 Minutes	08:80 Minutes
District 4	06:47 Minutes	14:66 Minutes
District 5	03:97 Minutes	20:42 Minutes
District 6	05:13 Minutes	11:73 Minutes
District 7	04:48 Minutes	21:98 Minutes
District 8	03:41 Minutes	15:64 Minutes
District 9	03:14 Minutes	20:21 Minutes
District 10	01:67 Minutes	10:96 Minutes
District 11	03:66 Minutes	12:21 Minutes
District 12	02:19 Minutes	09:64 Minutes
District 13	02:11 Minutes	09:98 Minutes

### **Interfacility Transport System**

Interfacility transports (IFTs) facilitate patient transfers by ground or air between healthcare facilities to access higher-level care, specialized equipment, or available capacity. For example, a local emergency department may transfer a stroke patient to a specialized stroke center with expert neurologists and advanced equipment. These transfers require coordinated collaboration between facilities, with patients closely monitored throughout the journey to ensure safety and continuity of care.

IFTs are essential to our healthcare system, however, at times they pose significant challenges for many Vermont hospitals and ambulance services. Traditional reimbursement frequently falls short of the actual cost of providing a transfer. At the same time, numerous agencies collaborate well with hospital systems providing efficient, safe transport and rely heavily on IFT revenue. Vermont conducts approximately 28,000 IFTs annually, including:

- 18,000 hospital-to-hospital movements.
- 10,000 transports to nursing homes and other facilities.
- 12,000 originating from Vermont hospitals to other hospitals (25% leaving the state for specialized care).
- Six services complete 71% of all hospital-to-hospital transfers: Lamoille, Rescue Inc., Regional, Barre Town, Newport, and Amcare.
- Most transfers involve stable patients: 83% BLS stable, 14% potentially unstable, 2% critical care and 1% unstable.
- Patients were transferred to 72 hospitals, with UVM Medical Center (4,521), Dartmouth-Hitchcock Medical Center (2,582), and Albany Medical Center (479) receiving the most.

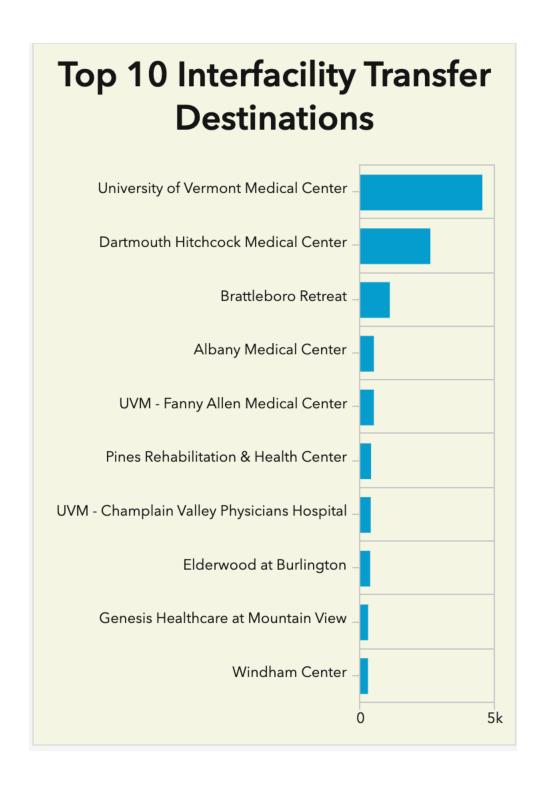
# **Key Findings**

In parts of Vermont, IFTs contribute to system strain, while in other areas, IFT systems function efficiently.

A few services handle most transfers, primarily involving stable patients across multiple hospitals.

Ground ambulance services provide critical care transport in Vermont.

Most of the air transport in Vermont is provided by out of state agencies.



# **Workforce and Training**

Vermont's EMS workforce—while skilled and deeply dedicated—is under severe strain. Workforce size has remained constant for the past decade despite increasing demand, turnover, and workload. Recruitment and retention face ongoing challenges, particularly in rural and volunteer-dependent districts where many agencies struggle to sustain round-the-clock coverage at their licensed level of care. Vermont's heavy reliance on volunteer services is increasingly untenable due to limited incentives, inadequate support, and declining availability. EMS providers lack access to health plans, and existing workforce funding programs remain inadequate for long-term sustainability.

Professional development in Vermont's EMS system operates without state-level coordination or standardization. Entry-level training programs, continuing education opportunities, and career advancement pathways vary significantly across agencies and districts. The absence of a comprehensive state roadmap for EMS professional development creates barriers to workforce growth and limits providers' access to consistent, quality training.

### **Key Findings**

Workforce size has remained constant for the past decade despite increasing demand, turnover, and workload.

EMS workforce funding programs are inadequate for sustainability.

Educational access is constrained by Vermont's rural geography, creating financial barriers from program costs and travel. EMS education subsidies vary by locality.

No state roadmap or standardized program for EMS professional development.

Variability and inequity in employee benefit structures directly undermine recruitment and retention efforts, making it difficult for some agencies to attract and retain qualified providers.

There are no parallels to EMS training or education in the State of Vermont, as compared to fire service or law enforcement training.

# **Clinical Performance and National Benchmark Comparison**

The committee conducted a limited data review from the Statewide Incident Reporting Network (SIREN) and identified four performance measures for evaluation. This analysis focused on key clinical interventions and assessments that reflect adherence to established protocols and evidence-based practice. These metrics rely solely on documented data fields. The committee cannot determine from the available data whether procedures or assessments were not performed or simply not documented. As a result, the metrics may not accurately reflect actual clinical practice.

Analysis of Vermont's EMS system reveals targeted opportunities for improvement across several critical clinical areas. The following metrics—hypoglycemia treatment, stroke

assessment, vital sign documentation, and cardiac arrest response—provide insight into the system's adherence to evidence-based protocols and standards of care. Performance varies significantly across districts, and Vermont's benchmarks fall below national standards in multiple key areas.

### Treatment Administered for Hypoglycemia

Timely hypoglycemia treatment is critical because low blood sugar can rapidly progress to seizures, loss of consciousness, and permanent brain damage. Prehospital glucose administration provides immediate symptom reversal and prevents life-threatening complications.

The EMS data reports 35% statewide compliance for timely prehospital treatment of hypoglycemia patients (data through August 2025), lagging the national benchmark of 38–40% by 3–5 percentage points. Statewide performance has remained stable around 35% from January 2023 through mid-2025. Fire departments and governmental non-fire agencies slightly outperform the state average at 36%, while hospitals and private nonhospital services average 35%.

#### Suspected Stroke Receiving Prehospital Stroke Assessment

Vermont EMS providers use standardized stroke assessment tools to identify potential stroke patients in the field and facilitate rapid transport to appropriate facilities. Stroke assessment in the prehospital setting is critical because stroke is a "time is brain" emergency—every minute without blood flow results in millions of dying neurons. Many stroke treatments, particularly clot-busting medications and mechanical thrombectomy, have strict time windows.

The EMS data show that Vermont achieves a 64% rate of prehospital stroke assessments for suspected stroke patients. This represents a significant 20-percentage-point gap below the national benchmark of approximately 84%. This statewide performance has remained consistently around 64% from 2023 through 2025, indicating persistent underperformance compared to national standards. Performance varies by organization type: governmental non-fire agencies lead at 68%, followed by fire departments at 66%, while hospital-based and private nonhospital services lag at 60–64%.

#### Glasgow Coma Scale Documentation

EMS providers document the Glasgow Coma Scale for neurological status, blood pressure to guide resuscitation decisions, and respiratory rate to identify shock or airway compromise. Together, these assessments drive trauma triage decisions and establish baseline data that receiving physicians use to guide treatment.

The EMS data shows that Vermont EMS providers document the critical vital sign triad—Glasgow Coma Scale (GCS), systolic blood pressure (SBP), and respiratory rate—in trauma

patients at a rate of 64% (data through October 2025), representing a substantial 26–31 percentage-point gap below national benchmarks of 90–95%. This statewide performance has remained stagnant at 64% since 2023, with significant variation by organization type: private nonhospital services lead at 69%, hospital-based agencies at 64%, governmental non-fire at 62%, and fire departments lag at 57%.

#### No Use of Lights and Sirens During Transport

In emergency medical services, the "no use of lights and sirens" metric is vital to safety. Excessive use nearly triples ambulance collision risk, posing dangers to crews, patients, and the public while offering minimal clinical benefit. The National Highway Traffic Safety Administration (NHTSA) and the National Association of EMS Physicians (NAEMSP) recommend reserving lights and sirens for true emergencies, as their overuse doubles the risk of transport-related accidents.

As of September 2025, Vermont's compliance with the non-use of lights and sirens is 37%, three percentage points below the national benchmark of 40%. Since January 2023, this rate has remained stable but varies by organization: governmental non-fire agencies lead at 44%, fire departments at 38%, and private nonhospital services at 35%. These variations suggest differences in organizational culture, protocols, or training that targeted interventions could address to improve safety.

Click below to access additional data and statistics supporting this analysis.

https://drive.google.com/file/d/1DmKZQv-rS\_v4\_A4Ndei\_Us\_mk57c3nf4/view

# The State and national performance measures listed in this report are subject to data limitations, including:

#### Selection and Information Bias

Prehospital data are entered by Vermont-licensed EMS practitioners from across the state and bordering states. Given that approximately 3,300 licensed providers submitting data, it should be recognized that individual, agency, or regional tendencies and/or subjectivities in data reporting may exist. For this reason, an outcome of interest (medication administration, provider interventions, cause of injury, etc.) may be over- or under-reported.

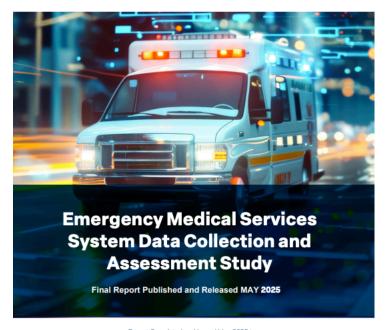
#### Data Transfer

Data files received from EMS agencies are checked for completeness, logical consistency, and proper formatting using a data filter. Any data files that do not pass the State or NEMSIS validation and data cleaning processes are rejected or flagged, depending on the type of error discovered. An export failure to NEMSIS results in the incident record and, therefore, the specific measurements of interest being excluded from the State's performance measures.

### **Vermont Emergency Medical Services Assessment Study**

Explore detailed findings from The Cambridge Consulting Group's Emergency Medical Services System Data Collection and Assessment Study, published May 29, 2025.





Report Completed and Issued May 2025 to The Vermont Emergency Medical Services Advisory Committee



The Cambridge Consulting Group. (2025, May 29). *Emergency Medical Services System Data Collection and Assessment Study*.

https://www.healthvermont.gov/sites/default/files/document/eprip-data-collection-2025.pdf

# **EMS Advisory Committee Roster & Contact Information (2025)**

District 1		
Kathy Jochim	director@fairfaxrescue.org	
District 2		
Adam Heuslein	adam@gloverambulance.org	
Samantha Atwood	smyroxy@gmail.com	
District 3		
Leslie Lindquist	Leslie.lindquist@uvmhealth.org	
Becky Alemy	balemy@colchestervt.gov	
District 4		
Scott Brinkman	sbrinkman@stowevt.gov	
Jeff Johansen	Jeff.johansen@newportambulance.org	
District 5		
No name representative		
District 6		
Joe Aldsworth	Joseph.Aldsworth@vermont.gov	
David Danforth	ddanforth@barretown.org	
District 7		
Charlene Phelps	luvtwins@gmavt.net	
Kate Rothwell	krothwell@middleburyems.com	
District 8	į į	
Matt Parrish	director@wrva.org	
Charles Piso	charlespiso@live.com	
District 9		
Alan Beebe	abeebe1967@aol.com	
District 10		
Michael Tarbell	deputychief@rasvt.com	
District 11		
No named representative		
District 12		
Bill Camarda	bcamarda@brsvt.org	
Bobby Maynard	bobby@dvrescue.com	
District 13		
Eric Wilson	ewilson@rescueinc.org	
VAA		
Drew Hazelton	dhazelton@rescueinc.org	
IREMS		
Patrick Malone	patrick.malone@med.uvm.edu	
Chris LaMonda	christopher.lamonda@med.uvm.edu	
PFFV		
Mark Hachey	hacheymarc@gmail.com	
Billy Fritz	wfritz@brattleboro.gov	
VCFC		

Aaron Collette	acollette@willistonfire.com	
Michael Randzio	Michael.Randzio@chestervt.gov	
VSFA		
No named representative		
VAHHS		
No named representative		
VLCT		
Lee Krohn	leekrohn1@gmail.com	
VDH		
Will Moran	william.moran@vermont.gov	
Chelsea Dubie	chelsea.dubie@vermont.gov	

### **Glossary**

### **Provider & Agency License Levels**

**Advanced Emergency Medical Technician** (AEMT) - Provides basic and limited advanced care, adding invasive skills beyond EMT while not reaching the full scope of a paramedic.

#### **Key capabilities include:**

- All EMT skills
- Advanced airway adjuncts (supraglottic airways)
- IV and IO access
- Fluid administration
- Expanded medication administration (state-dependent), commonly:
  - o Dextrose
  - o Glucagon
  - o Epinephrine
  - o Narcan
  - o Albuterol
  - o Nitrous oxide (in some states)
- Some cardiac monitoring (non-interpretive)

AEMTs bridge the gap between EMT and Paramedic, particularly in rural systems.

Critical Care Paramedic - Advanced knowledge and skills necessary to provide specialized patient care during critical care interfacility transfers. Critical Care Paramedics have completed EMS office approved critical care training and have received authorization for an expanded scope of practice beyond standard ALS procedures. They perform specialized interventions with advanced equipment and approved medications under the endorsement of their EMS district medical advisor.

**District Medical Advisor** - Physician(s) selected by an EMS district board to advise the board on matters involving medical practice, medical direction, development of operational protocols such as regional systems of care, medical oversight of EMS educational programs, and continuous quality improvement. The district medical advisor serves as a liaison between the EMS district board and the medical community. The district medical advisor also serves as the Commissioner's designee for purposes of medical direction.

**Emergency Medical Responder (EMR)** - Provides immediate lifesaving care to patients while awaiting additional EMS response. Their role focuses on basic interventions with minimal equipment.

*Key capabilities include:* 

- Scene safety and patient assessment
- CPR and AED use
- Basic airway management (including OPA/NPA)
- Hemorrhage control (direct pressure, tourniquets, wound packing)
- Assistance to higher-level providers

#### EMRs do **not** transport patients.

**Emergency Medical Services (EMS)** - An integrated system of emergent and non-emergent practice of medicine in the out-of-hospital environment. This includes personnel and resources designed to assess, treat, and determine the appropriate disposition of patients with injury and illness and those in need of specialized care and safe transportation. EMS is a vital component of the healthcare, public health, and public safety systems.

**Emergency Medical Technician (EMT)** - Provides basic emergency medical care and transportation. They serve as the backbone of most EMS systems.

Key capabilities include:

- Comprehensive patient assessment
- Airway management, including BVM and basic adjuncts
- Oxygen administration
- CPR/AED
- Immobilization, splinting, and bleeding control
- Administration of limited medications (varies by state), commonly:
  - o Epinephrine auto-injector
  - o Albuterol via nebulizer
  - o Nitroglycerin and aspirin (assistance/admin per protocol)
  - o Oral glucose
  - Naloxone
- Transport and ongoing monitoring

**Paramedic** - Highest level provider of out-of-hospital emergency care defined in the National Scope. They are trained in complex decision-making, advanced procedures, and a broad medication formulary.

*Key capabilities include:* 

- All EMR, EMT, and AEMT skills
- Advanced airway management:
  - o Endotracheal intubation
  - Supraglottic airway management
  - Capnography
- Cardiac care:
  - o 12-lead ECG acquisition and interpretation
  - o Advanced cardiac life support
  - o Cardioversion, pacing, defibrillation
- Extensive medication administration, including:
  - o Analgesics, sedatives
  - o Cardiac medications
  - o Anticonvulsants
  - Vasopressors
  - o Respiratory medications
- IV/IO therapy, infusion pumps, pharmacologic interventions

- Trauma and medical critical care management
- Medical decision-making with online/offline medical direction
- Leadership on scenes, including triage and system navigation

**Provider** - An individual who is certified to provide prehospital care.

**Vermont First Responder (VFR)** - An entry-level emergency medical care provider trained to provide initial assessment and basic life support care until higher-level EMS providers arrive. This is Vermont's state-specific first responder certification.

#### **EMS Educator Levels**

**EMS Instructor** - Licensed by the Department of Health as an EMS Skills Instructor, EMS Instructor/Coordinator or EMS Senior Instructor.

**Licensed Skill Instructor (LSI)** - An educator authorized to teach and evaluate specific clinical skills within EMS training programs, often focusing on hands-on competency training.

**Senior Instructor** - The highest level of EMS educator, qualified to teach all levels of EMS courses and typically responsible for program oversight and curriculum development.

### **Service Types and Programs**

**First responder service** - An entity licensed by the Department of Health to provide emergency medical treatment.

**Interfacility Transport (IFT)** - The transfer of patients between medical facilities (hospital to hospital, nursing home to hospital, etc.), typically requiring ambulance services with appropriate level of care.

**Mobile Integrated Healthcare (MIH)** - Healthcare delivery model that integrates EMS providers into the broader healthcare system to provide care in various settings, including homes and community locations, focusing on reducing unnecessary emergency department visits. Community paramedicine is used interchangeably and is an expanded scope program where EMS providers deliver healthcare services beyond traditional emergency response, including preventive care, chronic disease management, and wellness checks in community settings.

**Non-transports** - EMS responses where patient care is provided but the patient is not transported to a medical facility, either due to refusal of care, treatment and release on scene, or other disposition.

### **System Components**

**EMS District** - A geographic region that coordinates EMS services, resources, and planning within a defined area, often used for administrative and operational coordination.

**Medical Direction** - Physician oversight of EMS operations, including protocol development, quality assurance, and authorization for advanced procedures. Can be online (direct communication) or offline (standing orders/protocols).

**Mutual Aid** - An arrangement where EMS agencies help each other when emergencies strain resources or call volume is high.

National Emergency Medical Services Information System (NEMSIS) - The national database and data standard for uniform EMS information collection.

**Statewide Incident Reporting Network (SIREN)** - Vermont's electronic prehospital patient care data collection, analysis, and reporting system. SIREN serves as the state's platform for EMS documentation, quality improvement initiatives, billing, legal records, and performance evaluation.