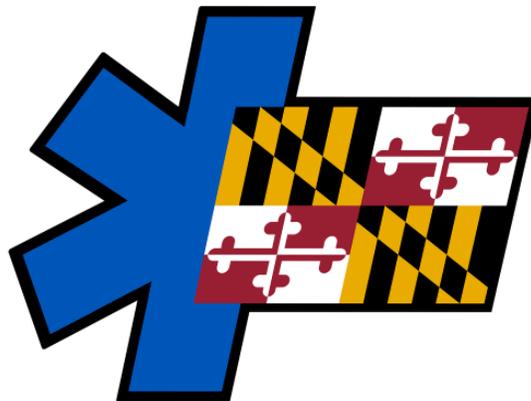


Use of Paramedics in Public Health Vaccination Programs

Report required under
Chapter Laws 799 of 2021 (Senate Bill 67)

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Executive Summary

Senate Bill 67, “Emergency Medical Services – Paramedics – Vaccination Administration,” was introduced in the 2021 General Assembly. The departmental bill was intended to remedy a gap in existing law that did not allow commercial ambulance services to administer influenza and Hepatitis B vaccinations and TB skin testing to their own personnel, although public safety ambulance personnel were permitted to do so. The bill also sought to modify existing law to permit Paramedics to administer vaccines included in the Centers for Disease Control & Prevention’s recommended immunization schedule or authorized for emergency use by the Food and Drug Administration. The impetus behind the bill was the need to vaccinate the general public in the face of COVID-19, although broader language was included to obviate the need to seek a statutory change every time there was a broad public health need that involved a new federally-authorized vaccine. The rationale behind the bill was that EMS could act as a “force multiplier” if Paramedics were able to administer vaccines as part of a health program or a population health outreach effort conducted by a county health department or Maryland hospital or health system. The vaccinations were to be authorized by the Maryland Institute for EMS Systems (MIEMSS), provided under the direction of the Paramedic’s EMS medical director, and limited to those people 18 years of age and older; other provisions, e.g., appropriate vaccine storage and documentation, were also required.

As passed, SB 67 authorized both public safety and commercial ambulance service Paramedics to administer influenza and Hepatitis B immunizations and tuberculin skin testing to their own personnel within their jurisdiction. The final bill also authorized Paramedics to administer influenza and COVID-19 immunizations as part of a public health outreach efforts conducted by a local health department or a Maryland hospital or hospital system. However, authorization to administer influenza and COVID-19 immunizations as part of a population health outreach effort terminates January 1, 2023.

SB 67 also directed MIEMSS to report on efforts to include Paramedics in public health vaccinations programs, including programs implemented in other states. This report is submitted in response to this directive. As discussed herein, the report includes the following information:

- Based on national EMS Scope of Practice standards, and by virtue their required education and skills training, Paramedics are qualified to administered intramuscular injections and immunizations as approved by their medical director.
- Nationally, in 34 states, Paramedics vaccinate individuals as part of their regular scope of practice or under medical direction (i.e., vaccinations are not limited to COVID-19). In 17 other states / territories, Paramedics have been temporarily authorized to administer vaccines under an emergency / executive order or other administrative action.
- Maryland Paramedics are educated and trained to national standards and are capable of safely administering vaccines.
- Unlike the majority of the states, however, Maryland does not routinely permit Paramedics to administer immunizations. Maryland law only permits Paramedics to provide influenza and Hepatitis B vaccines to other EMS personnel within their own EMS jurisdictions.

- With the passage of SB 67, until January 1, 2023, Paramedics are permitted to administer COVID-19 and influenza vaccinations to members of the general public as part of a public health initiative conducted by a local health department or hospital / hospital system.
- From the time the COVID-19 vaccine became available (early 2021) through September 1, 2021, Maryland EMS clinicians have administered over 100,000 COVID-19 vaccinations:
 - EMS administered over 80,000 vaccinations to members of the general public as part of public health outreach conducted in partnership with local health departments and hospital / hospital systems; and
 - EMS has administered an additional 21,000 COVID-19 vaccinations to State, county and local government employees.
- Given the uncertain trajectory of COVID-19 and annual surge of seasonal influenza, it is possible that EMS may be needed to continue to administer vaccinations and boosters to the general public as part of public health efforts beyond the January 1, 2023, sunset date. If so, existing law will need to be modified in the 2022 Session of the Maryland General Assembly to permit these vaccinations to continue.

Overview of Emergency Medical Services (EMS) in Maryland

Maryland's EMS system is comprised of both public safety EMS programs and commercial EMS services. Public safety EMS programs are supported through county and local governments, as well as by volunteer ambulance companies, and are responsible for responding to 9-1-1 calls in their respective geographic areas. Commercial EMS services are private sector businesses that provide patient transport between health care facilities (e.g., ICUs; hospitals; nursing facilities).¹

Public safety EMS services are provided in Maryland through the authority of county or local governments using fire / EMS companies that may be comprised of career-based EMS clinicians (who are paid to render EMS care) or volunteer-based EMS clinicians (who provide services at volunteer fire/EMS companies that are non-profit organizations). Many Maryland jurisdictions provide EMS using a mix of both career-based and volunteer companies and EMS clinicians.

By statute, MIEMSS regulates and oversees compliance of both the public safety and commercial service components of the EMS system. All EMS clinicians, whether practicing in public safety or commercial service environments, meet the same certification / licensing requirements and render care in compliance with the same approved EMS patient care protocols, "the Maryland Medical Protocols for Emergency Medical Services," which are uniform throughout the State. As per regulation, the protocols are developed by an expert committee comprised of physicians, nurses, specialists and EMS clinicians to ensure effective care and patient safety.² The State EMS Board reviews, approves and issues the Maryland Medical Protocols, which are then promulgated as regulations and implemented by public safety and commercial ambulance services.^{3 4} In addition to the Maryland Medical Protocols, EMS clinicians provide treatment under medical direction from emergency physicians who are credentialed by MIEMSS, and each public safety jurisdiction and commercial service has a physician medical director who oversees medical care and quality assurance⁵.

Maryland licenses or certifies five levels of EMS clinicians: Emergency Medical Dispatcher, Emergency Medical Responder, Emergency Medical Technician, Cardiac Rescue Technician, and Paramedic. The highest level, Paramedic, is an allied health professional who is able to provide advanced emergency medical care for critical and emergent patients. In order to be eligible for Maryland licensure, Paramedics must have (1) previously attained certification as an Emergency Medical Technician (which required completion of a 165 hour education program); (2) successfully completed an additional 1,100 hours of education at a Paramedic education program that is certified by the Commission on Accreditation of Allied Health Education

¹ By regulation, commercial EMS services are precluded from responding to an emergency incident, e.g., 9-1-1 call or disaster, unless requested to do so by a public safety 9-1-1 EMS service. See COMAR 30.09.07.04A.

² COMAR 30.05.02.

³ COMAR 30.05.02A.

⁴ See: https://www.miemss.org/home/Portals/0/Docs/Guidelines_Protocols/MD-Medical-Protocols-2021-Print-20210601.pdf?ver=2021-06-16-111500-000

⁵ COMAR 30.03.03

Programs⁶; (3) obtained certification as a Nationally Registered Paramedic⁷; and (4) successfully completed a Maryland Advanced Life Support protocol examination. Licensure is valid for two years; licensure renewal requires completion of specified continuing education and successful re-registration as a Nationally Registered Paramedic.

The National EMS Scope of Practice Model identifies the knowledge and psychomotor skills necessary for the minimum competence of each nationally identified level of EMS personnel⁸. Although each state establishes its own levels of EMS clinicians and scopes of practice for those levels, the Model represents the accepted national standard. The National EMS Scope of Practice Model includes intramuscular injection as a required Paramedic skill and administration of immunizations as a medical director-approved medication⁹. Maryland Paramedics are educated and trained to meet national standards. Consequently, by national standards, Paramedics are qualified to administered intramuscular injections and immunizations as approved by their medical directors.

EMS Administered Immunizations – Nationally

The National Association of State EMS Officials surveyed states in early 2021 regarding EMS administering vaccinations¹⁰.

- In 34 states, Paramedics vaccinate individuals as part of their regular routine scope of practice or under medical direction (i.e., vaccinations are not limited to COVID-19).
- In 17 states, Paramedics are currently temporarily allowed to administer vaccines under an emergency / executive order or other administrative action.

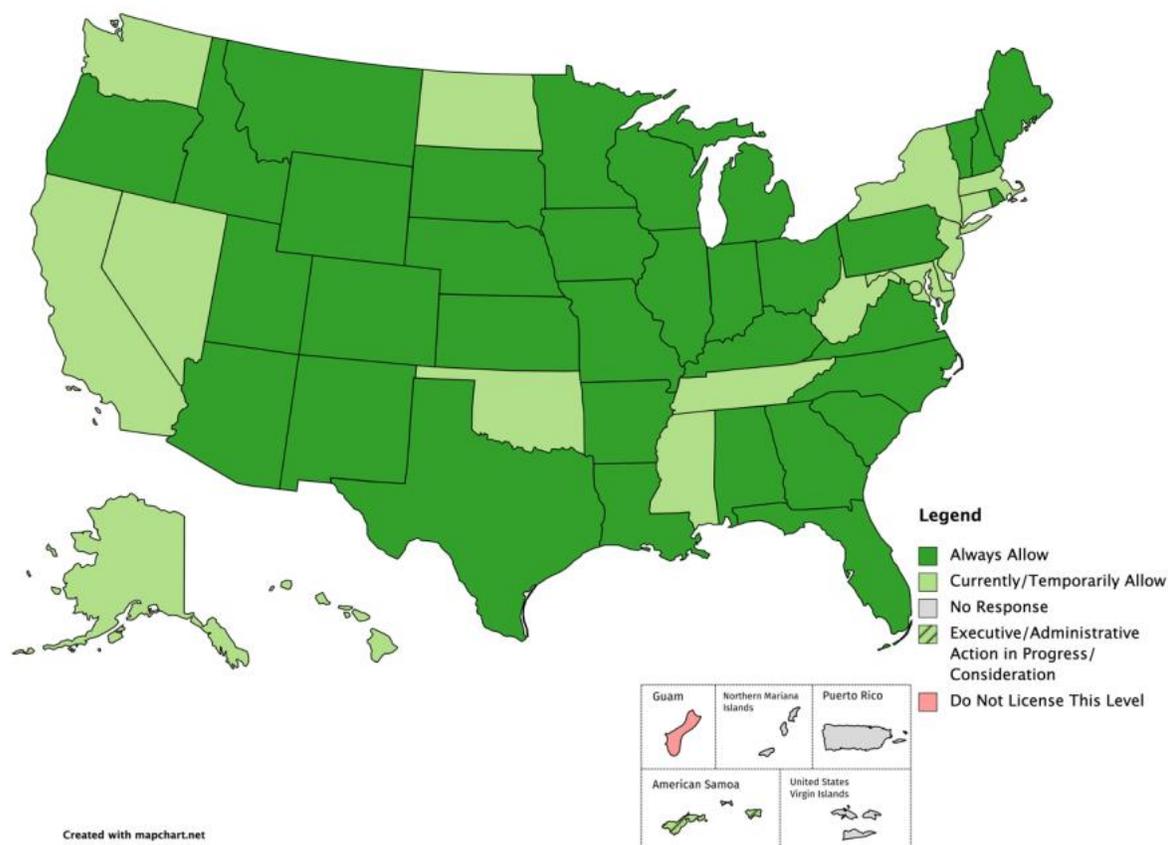
⁶ The Commission on Accreditation of Allied Health Education Programs is the largest programmatic accreditor of the health services professions and reviews and accredits over 2100 education programs in 32 health science occupations. See www.caahep.org

⁷ The National Registry provides National EMS Certification which is a validated and legally defensible attestation of competency. Forty-five states and the District of Columbia require National Registry Certification as a basis for initial State licensure at the Paramedic level. See www.nremt.org

⁸ National Association of State EMS Officials. *National EMS Scope of Practice Model 2019* (Report No. DOT HS 812-666). Washington, DC: National Highway Traffic Safety Administration.

⁹ In March 2021, the scope of practice for EMTs was expanded to include intramuscular medication administration as part of their common daily practice, as well as administration of medical-director approved immunizations during a public health emergency.

¹⁰ National Association of EMS Officials. "Emergency Medical Services Personnel as Vaccinators." See: <https://nasemso.org/wp-content/uploads/COVID-Vaccination-Report.pdf>



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EMS-Administered Vaccinations in Maryland

Under a Maryland law enacted in 2000, Paramedics were permitted to administer influenza and hepatitis B immunizations and tuberculosis skin testing to public safety personnel within the Paramedic’s jurisdiction in a non-emergency setting.¹¹ Under the statute, the immunization or skin test had to be authorized by a written agreement between the Paramedic’s jurisdictional EMS operational program medical director and the county or city health department in whose jurisdiction the services were performed and provided under the direction of the EMS medical director. The written agreement had to include provisions for documentation, referral and follow-up, and storage and inventory of medication. Paramedics were permitted to administer influenza and Hepatitis B immunization and TB skin testing only to career or volunteer members of a fire, rescue or EMS department, company, squad or auxiliary; a law enforcement officer; and the State Fire Marshal or sworn member of the State Fire Marshal’s office. Notably, the law did not

¹¹ Chapter 174 of the Acts of the General Assembly of 2000.

include administration of immunizations and TB testing for EMS clinicians working at commercial ambulance services, nor did it permit Paramedic administration of influenza or Hepatitis B immunizations to members of the general public as part of county health department public health initiatives.

In early March 2020, after confirmation of the first three cases of COVID-19 in Maryland, the Governor declared a State of Emergency and catastrophic health emergency and subsequently issued a series of Executive Orders. Executive Order #20-03-30-02, “Augmenting Emergency Medical Services,” authorized the MIEMSS Executive Director and State EMS Board Chair to suspend the effect of certain provisions of Maryland’s EMS laws and regulations, specifically 13-515, 13-516, or 13-517 of the Education Article of the Maryland Code or of Title 30 of the Code of Maryland Regulations. Suspension of these provisions were to be based upon a finding that suspension would not endanger public health, welfare or safety; would augment the EMS workforce; and would improve the State’s response to the state of emergency and catastrophic health emergency.¹² The Executive Order also permitted additional, revised or supplemental procedures or protocols to be issued concerning licensure, certification or scope of practice as necessary to appropriately respond to the state of emergency and catastrophic health emergency. The Executive Order was to remain in effect until the state of emergency was terminated and the proclamation of the catastrophic health emergency was rescinded.

Over the next several months, the Executive Director and EMS Board Chair issued several Public Notices modifying the delivery of EMS throughout the State. Public Notice #6, issued in September 2020, authorized EMS clinicians to administer influenza and COVID-19 vaccines as part of a public health outreach effort coordinated by a local health department or Maryland hospital / hospital system during the COVID-19 emergency. The Notice provided that:

“...subject to the rules, regulations, protocols, orders, and standards of the EMS Board, and approval by the State EMS Medical Director, a Paramedic may administer seasonal influenza and Corona Virus vaccines under the direction of an EMS operational program medical director as part of an EMS clinician occupational health program or part of a public health outreach effort coordinated by a local health department or Maryland Hospital or Health System, until a state of emergency has been terminated and the proclamation of the catastrophic health emergency has been rescinded...”¹³

MIEMSS required EMS operational programs that wished to participate in a COVID vaccination program under Public Notice #6 to submit an application and plan for participation to the State EMS Medical Director.¹⁴ Interested EMS operational programs were required to partner with a

¹² Order of the Governor of the State of Maryland #20-03-30-02, entitled Augmenting the Emergency Medical Services Workforce. March 19, 2020.

¹³ Public Notice #6, September 10, 2020.

¹⁴ SB 67 (Chapter 799) became effective prior on May 30, 2021. Public Notice #6 expired on August 15, 2021, with the expiration of the Executive Order that had provided the impetus and initial undergirding for EMS involvement in public health vaccination initiatives.

county health department or hospital / hospital system that was providing COVID vaccination programs and provided detailed information on how the programs would operate.

From the time the COVID-19 vaccine became available (early 2021) through September 1, 2021, Maryland EMS clinicians have administered approximately 100,000 COVID-19 vaccinations. EMS has administered over 80,000 vaccinations to members of the public as part of public health outreach conducted in partnership with local health departments and hospital / hospital systems. Additionally, EMS Clinicians have provided over 21,000 COVID-19 vaccinations to State, county and local government personnel¹⁵. EMS vaccine administration throughout the state has included the Moderna mRNA vaccine, Pfizer-BioNTech mRNA vaccine, and Johnson & Johnson Jansen's Viral Vector vaccine.

The nineteen (19) public safety EMS jurisdictions and two (2) licensed commercial ambulance services that have partnered with local health departments and hospital / hospitals systems to conduct public health outreach efforts to provide COVID-19 vaccinations to the public are shown below.

- Allegany County EMS
- City of Annapolis Fire Department EMS Division
- Anne Arundel County Fire Department
- Baltimore City Fire Department
- Baltimore County Fire Department
- Butler Medical Transport
- Calvert County Fire/Rescue/EMS
- Caroline County EMS
- Cecil County Fire/Rescue/EMS
- Charles County EMS
- Frederick County Fire & Rescue
- Hatzalah of Baltimore
- Garrett County EMS
- Howard County Fire & Rescue
- Maryland State Police Aviation Command
- Montgomery County Fire & Rescue
- Ocean City Fire Department
- Prince George's County Fire / EMS Department
- Queen Anne's County Department of Emergency Services
- Washington County Division of Emergency Services
- Wicomico County / Salisbury EMS

¹⁵ In addition to these entities, MIEMSS has offered a COVID-19 vaccination clinic which provided vaccinations for an additional 6,344 individuals employed by State and local governments; and currently is operating a clinic to provide COVID booster shots to eligible personnel, as well as to provide COVID-19 vaccinations at the Port of Baltimore for seafarers and longshoreman.

EMS participation in these public health vaccination initiatives has included the full spectrum of activities required to provide a large number of vaccinations to members of the public. Although Paramedics have generally been charged with administration of vaccines, operation of public vaccination clinics is supported by other EMS clinician levels, i.e., Emergency Medical Technicians (EMT) and Cardiac Rescue Technician (CRT) who have been responsible for required vaccination-related activities, including:

- Obtaining patient consent
- Distribution of vaccination information to patients
- Preparation of syringes for administration of vaccine
- Documentation of vaccination administration in accordance with State and local requirements
- Monitoring patients for adverse reactions
- Standby to treat and transport patients with adverse reactions

Additionally, because the delivery of EMS services is structured to be responsive to health care needs within communities, EMS jurisdictions have been able to provide vaccinations to specific, identified populations, as well as to individuals whose access to vaccinations would otherwise be limited. For example, Anne Arundel County Fire Department was responsible for vaccinating school teachers in that county and operated a clinic out for that purpose at their fire department headquarters. Howard County Fire & Rescue provided vaccinations as part of their Mobile Integrated Health Program to members of the public who were homebound, as did Baltimore City Fire Department. Prince George's County Fire / EMS Department fulfilled a requirement by the Federal Emergency Management Agency (FEMA) that EMS personnel must be stationed on-site during FEMA-conducted public vaccination clinics, in the event a patient experienced an adverse reaction. Montgomery County Fire & Rescue operated COVID-19 vaccination clinics out of many of their fire stations to increase geographic availability of COVID-19 vaccines for the general public.

Maryland's EMS System has worked to address public health needs related to the COVID-19 pandemic in partnership with local health departments and hospitals / hospital systems. Incorporation of EMS into the existing public health framework in this manner has enhanced the reach of these initiatives and significantly augmented the State's response to the pandemic.

Conclusion

Based on national EMS Scope of Practice standards, and by virtue of their required education and skills training, Paramedics are qualified to administered intramuscular injections and immunizations as approved by their medical director. Maryland Paramedics are educated and trained to national standards and are capable of safely administering vaccines.

Nationally, in 34 states, Paramedics vaccinate individuals as part of their regular routine scope of practice or under medical direction (i.e., vaccinations are not limited to COVID-19). In 17 other

states / territories, Paramedics have been temporarily allowed to administer vaccines under an emergency / executive order or other administrative action.

Unlike the majority of the states, however, Maryland does not routinely permit Paramedics to administer immunizations. Maryland law permits Paramedics to provide influenza and Hepatitis B vaccines to other EMS personnel within their own EMS operational program. Only until January 1, 2023, are Paramedics permitted to administer COVID-19 and influenza vaccinations to members of the general public as part of a public health initiative conducted by a local health department or hospital / hospital system.

From early 2021, when the COVID-19 vaccine became available, through September 1, 2021, Maryland EMS clinicians have administered over 100,000 COVID-19 vaccinations. EMS administered over 80,000 vaccinations to members of the public as part of public health outreach conducted in partnership with local health departments and hospital / hospital systems. EMS has administered an additional 21,000 COVID-19 vaccinations to State, county and local government employees.

Given the uncertain trajectory of COVID-19 and annual surge of seasonal influenza, it is possible that EMS may be needed to continue to administer COVID-19 vaccinations and boosters to the general public as part of public health efforts beyond the January 1, 2023, sunset date. If so, existing law will need to be modified during the 2022 Session of the Maryland General Assembly to permit these vaccinations to continue.