On July 16, 1798, President John Adams signed the Act for the Relief of Sick and Disabled Seamen, which established hospitals along waterways, and provided for a tax on sailors’ salaries to be used by the Secretary of the Treasury to construct locally controlled marine hospitals that would provide medical services to merchant seamen in American ports. This was the very beginning of what would become the US Public Health Service Commissioned Corps (USPHS CC). In 1889, an Act of Congress formally established the USPHS CC.

This entity grew over the ensuing decades, and in 1959 a Health Services category was established to meet the staffing needs of a changing USPHS CC. At the time, officers who were trained in a single discipline, such as physicians and nurses, staffed most of the USPHS CC.
categories. However, health professionals whose qualifications distinguished them from the existing staff in the USPHS CC categories were needed.

In 1991, medical technologists were added to the Health Services category. Health Service Officers (HSOs) perform a variety of functions, including direct clinical practice, program development, health planning and administration, and research. The category has grown from a small nucleus of a few officers to, at present, approximately 1,300 officers.

In 2005, the Medical Laboratory Science Professional Advisory Group (MLS PAG) was established to assist members in spreading the word about the practice of laboratory medicine while working on issues important to
The Role of Laboratory Professionals in the USPHS CC

Mission
The mission of the USPHS CC is to provide highly trained health professionals to carry out programs that promote the health of the nation and prevent disease while providing health expertise in time of national and international emergencies. USPHS CC is one of the seven uniformed services of the United States, which also includes the Army, Navy, Air Force, National Oceanic and Atmospheric Administration, Marines, and Coast Guard.

Roles
USPHS CC MLS/MTs serve in many roles with multiple federal agencies, including the Indian Health Service, Federal Bureau of Prisons, Food and Drug Administration, Centers for Disease Control and Prevention, National Institutes of Health, Centers for Medicare and Medicaid, and many others.

Commissioning Requirements
MLS/MTs in the USPHS CC must hold a valid, current certification from the American Society of Clinical Pathology or American Medical Technologists, and a baccalaureate degree related to clinical laboratory science or another human biology discipline, including microbiology, virology, and organic-based chemistry, from a program accredited by the Commission on Allied Health Education Accreditation.

Opportunities
MLS/MTs offer a broad range of work experience in the multidisciplinary clinical settings, including the major scientific fields of hematology, immunology, clinical chemistry, and microbiology. Other opportunities are available in areas of research laboratories, healthcare administration, policy, and public health, and as regional laboratory consultants.

The Value of MLS/MT Officers to the USPHS CC
As the diagnosis of disease increasingly relies on more tests in order to provide accurate and speedy interventions, the importance of the MLS/MT is irrefutable. MLS/MT officers are the unsung heroes in the war against disease, and play an important role in national and international deployments, not just by working as specialists in their field, but also by serving in various roles such as infectious control officers, safety officers, and medical researchers.

Within the various federal agencies, some of the roles that USPHS CC MLS/MT officers serve include the following:

- **Regional laboratory consultants**, who provide federal oversight to laboratory state surveyors and laboratories, recommending enforcement action regarding certification, Clinical Laboratory Improvement Amendments (CLIA) application denials, revocations/suspensions of CLIA certifications, intermediate sanctions, and hearings for laboratories in the area of laboratory services in relation to federal regulations under CLIA.
- **Consumer safety officers**, who investigate complaints of injury, illness, or death caused by a Food and Drug Administration-regulated product; advise industry, state, and local officials and consumers on enforcement policies, methods, and interpretation of regulations; plan and direct regulatory programs.
- **Public health analysts**, who manage a portfolio of grantees throughout the US, ensuring program integrity and responsible stewardship of federal grant resources by monitoring and guiding grantees; conduct research and data analysis that incorporates socio-economic and culturally competent factors that equitably distribute health workforce professionals to the Critical Shortage Facilities.

**Medical Laboratory Scientists’ Roles in Deployments**

One of the most effective uses of a medical laboratory professional’s skills during a deployment is in the laboratory itself. MLS/MT professionals can establish laboratories in geographically remote areas, while training other health professionals and delivering comprehensive testing to patients with the most basic laboratory equipment, such as those used for point-of-care testing. In 2014, during the Ebola outbreak in Africa, for example, a functioning laboratory was set up at the Monrovia Medical Unit (MMU), and MLS/MTs played an essential role in the Commissioned Corps Ebola Response in the MMU’s laboratory operations and in providing in-country laboratory training.

MLS/MT officers can also deploy with the Department of Homeland Security (DHS). The DHS BioWatch program provides early detection of bioterrorism events and helps communities prepare a coordinated response. MLS/MT officers assigned to this program provide technical expertise in identifying agents (e.g., *Bacillus anthracis*) used in potential terrorist attacks via biological weapons. MLS/MT officers from the BioWatch program deploy to areas suspected in bioterrorism activities. During these deployments, MLS/MT officers provide technical support in the field of microbiology to determine if the suspected agent is a real attack or from an environmental source.

**Conclusion**

MLS and MT officers are critical to the success of the USPHS CC. Operating in both clinical and nonclinical roles within 20 federal agencies, the group has expanded greatly since the USPHS CC’s inception, and continues to grow and evolve for the betterment of public health.

The contributing authors are members of the US Public Health Service Commissioned Corps.