



NATIONAL REGISTRY OF EMTs RESEARCH KEY INITIATIVE

Key Takeaways

- ✱ Research is a core element of the National Registry's mission. As such, EMS research helps us also achieve our vision of a safer, healthier world where every patient benefits from the expertise of certified EMS clinicians.
- ✱ National Registry research plays a vital role in building a healthier safer world through protecting the public by evaluating three key areas: clinician competency, patient care, and workforce health.
- ✱ Our mission is to contribute to nationwide scientific knowledge for the betterment of EMS clinicians and systems.

EMS RESEARCH

The National Registry of EMTs created the EMS Research team to contribute scientific knowledge nationwide and globally for the well-being of EMS clinicians and their patients. In 2001, the National EMS Research Agenda identified a lack of career EMS researchers to contribute to nationwide scientific knowledge for the betterment of EMS clinicians and systems. Responding to this call, the National Registry of EMTs created the EMS Research Fellowship within a dedicated Research Team to prepare academically prepared researchers through partnership with The Ohio State University College of Public Health's doctoral training programs.

From these beginnings, the Research Team has evolved into a national EMS research leader featured in high impact peer-reviewed journals like The Center for Disease Control and Prevention's Morbidity and Mortality Weekly Report, Journal of the American College of Emergency Physicians OPEN, Prehospital Emergency Care, and Resuscitation. The Research team is leveraged by EMS stakeholders to support the development of Evidence-Based Guidelines, EMS Scope of Practice, and inform national strategies for protecting the EMS clinician workforce and improving provider wellness. Through replicable, reliable, and peer-reviewed research practices, their mission is to contribute to nationwide scientific knowledge for the betterment of EMS clinicians and systems.



Our key areas of work provide evidence-based rigor to the activities and processes of the National Registry. Our focus areas include:

- * Clinician competency: How EMS clinicians are trained matters! A crucial role of our team is to evaluate EMS clinician's training and how competency is measured.
- * Patient care: clinical care, identifying areas for improvement, and supporting efforts to align EMS practices with evidence-based guidelines.
- * Workforce health: People matter - identifying and describing certified EMS clinicians allows us to assess and understand intervenable areas to effect positive change among outcomes like job satisfaction, turnover intention, and role distribution. We also closely examine the educational process from program enrollment, through EMS licensure.
- * Helps define rigor of evidence through guideline development, priority of evidence adoption in examinations, and analysis of examination outcome trends.

What You Need To Know

- * The National Registry's Research Department, and EMS Research Fellowship, was designed to create and promote responsible research for the advancement of the EMS profession. The team consists of our Research Director, a board-certified physician in emergency medicine and emergency medical services, Dr. Ashish Panchal. He is supported by our Research Manager, EMT and public health-trained epidemiologist, Shea van den Bergh. A key part of the team are our EMS fellows who are earning a funded PhD at The Ohio State University. We also partner with the United States Army through their Training With Industry program for a rotating Army Officer every other year.
- * The National Registry's Research Team collaborates with researchers and institutions from across the nation like Harvard Medical School, The Center for Fire, Rescue, and EMS Health Research, NASEMSO, NAEMSP, and The National Emergency Medical Services Information System.





Focus Areas And Highlighted Work

Our key areas of work provide evidence-based rigor to the activities and processes of the National Registry. Our focus areas include:

* Clinician Competency

- The field of EMS education is dynamic and requires robust evaluations to adequately prepare clinicians to practice. Partnering with EMS educators, researchers, and medical directors, we are developing and assessing new frameworks of clinical judgment to better describe EMS care.
- The performance of the EMS clinical judgment framework, how to develop clinical judgment items, and understanding the dynamics of EMS educational programs.

* Patient Care

Understanding EMS clinical care is critical for the development of valid and reliable competency assessments. Through the National Registry's Practice analysis work and evaluation of national data sources (e.g. ESO, ImageTrend, NEMSIS), we define clinical care and trends in EMS practice. Additionally, leveraging this work, we help develop key evidence-based guidelines (naloxone, pain, airway management) to inform EMS protocols.

* Education and Entry Level Competency

Establishing a strong foundation for EMS clinicians begins with rigorous, evidence-based entry-level education and assessment. We work to define the essential knowledge, skills, and abilities new EMS clinicians must possess to provide safe and effective care. Our team contributes to national practice analyses, collaborates with educators and stakeholders, and ensures that examinations reflect current practice standards. This work supports the continuous improvement of initial education and certification processes to prepare clinicians for real-world demands.

* Workforce

We continue to assess the EMS workforce in terms of demographic representation, role distribution, and turnover. Increasing awareness around workforce health, possible drivers of leaving the workforce, and accurate measurement are important to ensure interventions are appropriately designed. We received \$249,000 initial funding for the Longitudinal Investigation into Fire and EMS Health Study (LIFE). This funding will be used to put together an interdisciplinary research team and rigorous methodology to investigate both fire and EMS occupational hazards, cancer risk, and mental wellness.



Questions

Q- How can I work with the National Registry's Research Team?

A- Contact us at research@nremt.org.

Q- Is your data available for use to the public?

A- No! Some of our data sources have requirements that prohibit sharing to limit the potential of harm to research participants. We do have available methodologies of data collection and analysis, as well as tools such as surveys to enable replication of our work.

Q- Where can I find your previous work?

A- You can find it on National Registry website, [here](#).

Q- How are you helping the EMS workforce situation?

A- We have to know how to measure a problem before meaningful action can be taken. We want to be intentional about defining the EMS workforce through replicable methodologies that allow for consistent reporting and evaluation.

Q- What is the LIFE Study?

A- In response to the growing concern over the health and wellness of firefighters and EMS clinicians, a groundbreaking initiative is underway to comprehensively evaluate the occupational risks associated with their daily activities. This landmark project, known as the Longitudinal Inquiry into Fire and EMS Health Study (LIFE Study), kicked off in late 2023 with its initial funding. You can learn more [here](#).