UNIVERSITY OF MARYLAND
STRATEGIC PARTNERSHIP
MPOWERING THE STATE

## Maryland Department of Health Student Research Project

# Epidemiological Survey of Overdose Outbreak Monitoring in Eastern Mid-Atlantic Region

***Focus Areas:***
*Overdose Outbreak Monitoring Processes, Overdose Risk Management Frameworks, Emerging Drug Trends*

**SUMMER 2026**
**May 26 – July 31**

This project is being offered through the **University of Maryland Strategic Partnership: *MPowering the State*** (http://mpower.maryland.edu) – a formal collaboration between the University of Maryland, Baltimore (UMB) and the University of Maryland, College Park (UMCP). The University of Maryland Strategic Partnership – "MPower" – provides funding for the program.

## MDH MISSION

The mission of the Maryland Department of Health (MDH) is to work together to promote and improve the health and safety of all Marylanders through disease prevention, access to care, quality management, and community engagement.

## PROJECT OVERVIEW

During Maryland's first cooperative agreement with CDC for Overdose Data to Action (2019 - 2023), the Maryland Department of Health convened surveillance partners to study the presence of xylazine in Maryland, culminating in a report released in 2023. The second cooperative agreement with CDC, "Overdose Data to Action in States (2023 - 2029) (OD2A)" included a requirement to identify emerging drug threats. MDH's surveillance teams expanded their focus and developed the Emerging Drug Trends Workgroup in the Fall of 2023 to monitor changes in the drug supply and drug use patterns, and broadened workgroup membership to include academic, local health departments, poison control, forensics, EMS and more. In Maryland and surrounding jurisdictions, the current drug-use environment is dynamic with drug users exposed to multiple polysubstances, causing negative synergistic effects.

In the Fall of 2025, Maryland's OD2A team initiated a Regional Emerging Drugs Jurisdictional Forum with public health partners in Pennsylvania, Philadelphia, Delaware,

DC, Virginia and West Virginia to share overdose outbreak and emerging drugs risk management frameworks, and to communicate current and potential threats.

The UM Scholar will work with the team to create a regional epidemiological survey of overdose outbreak monitoring processes, including statistical surveillance thresholds. The goal of the project is to identify and inform the establishment of a reliable layered monitoring system including consistent actionable forensic toxicology testing of fatal and nonfatal overdose for Maryland.

Currently, there are no evidence-based or generally accepted monitoring frameworks recommended for all public health jurisdictions. Overdose Outbreak monitoring is the keystone of any successful overdose risk management framework. Without adequate monitoring, risks will not be identified and opportunities for timely lifesaving mitigation are missed.

The UM Scholars work on this project will help provide recommendations to build the optimum monitoring processes to improve Maryland's overdose risk management framework and offer insights for regional partners.

## ABOUT THE PROJECT

The selected student will have the opportunity to survey and document overdose monitoring processes of Mid-Atlantic public health jurisdictions overdose risk frameworks. Benchmarking will be expected with other regions. Research and study of the effectiveness of analytical algorithms for various syndromic surveillance systems will be conducted.

In addition, the UM Scholar will compare and contrast actionable monitoring outcomes by layering and triangulating multiple monitoring systems including qualitative data analysis, quantitative data analysis, and street intelligence including drug checking, word of mouth, memo boards, digital media, etc.

The UM Scholar will be expected to attend and contribute to all OD2A surveillance, and select OD2A prevention meetings during their tenure. The UM Scholar's prime focus will be creating the epidemiological survey of regional overdose outbreak monitoring. There is an expectation that the UM Scholar will present their work to both the Maryland Emerging Drugs Trend Workgroup and the Regional Emerging Drugs Jurisdictional Forum at the end of their term.

A typical day early in the experience would start orientation through meetings and meeting notes, and then reading from a select list to orient the UM Scholar to current overdose data, outbreaks, emerging drugs and use trends in the region. The selected student will meet with their supervisor weekly, providing a weekly written workplan based on incremental efforts toward completion of the project objectives and deliverables.

The UM Scholar will learn how to use the Maryland Overdose Dashboard and will explore means of communication to support overdose outbreak monitoring and emerging drug threat assessment. A key aspect of the survey is compiling and understanding syndromic surveillance monitoring algorithms, and learning which analysis fits the needs of a given risk environment.

## IDEAL CANDIDATE

This project is ideal for a graduate level student with previous experience working in harm reduction or public health response to overdose. Undergraduates with strong data research skills and strong communication skills will also be considered. Experience building and maintaining databases is a plus.

The ideal candidate for this project will have:

- Overall Skill Set - Functional skills in Microsoft office and Google suite; will be able to organize and understand complex information; will be able to communicate effectively orally and in writing; and will be able to write technical reports and understand biostatistical concepts.
- Overdose Knowledge – The ideal candidate must have basic understanding of current overdose crisis.
- Professionalism - The ideal candidate must have excellent scholarship skills as work requires speaking and collaborating with multiple public health professionals from 10+ jurisdictions.

## ELIGIBLE STUDENTS

Students may come from UMCP's College of Behavioral & Social Sciences, School of Public Policy, or School of Public Health and UMB's School of Medicine, School of Graduate Studies, School of Nursing, School of Social Work, or School of Pharmacy.

## PROJECT LOCATION

**This project delivery may be in-person, hybrid, or remote.** When in person, this is the address that the student will report to:

MDH State Center
201 W. Preston Street
Baltimore, MD 21201

Mentor and student should discuss delivery details during the interview, including method (in-person, hybrid, or remote), expectations, location, and meeting frequency. Flexibilities to complete the 10 weeks of research may be considered on a case-by-case basis.

**PROJECT LEAD/PRINCIPAL INVESTIGATOR**
Charles Howsare, MD MPH, Overdose Data to Action Surveillance Coordinator

**PHONE NUMBER:** (443) 826-3398
**EMAIL ADDRESS:** charles.howsare@maryland.gov

**More than one student will be considered for this project.**

**PROJECT REQUIREMENTS:**

- 10 weeks/400-hour student research project conducted with schedule mutually defined and agreed upon by the student and mentor.
- The project is funded by the University of Maryland Strategic Partnership: *MPowering the State* (MPower) and is a part of the UM Scholars program.
- The selected student will receive a stipend for their work, to be paid in multiple installments over the 10 weeks.
    - **$5,500** for undergraduate students
    - **$6,500** for graduate students
- Work is expected to occur during typical business hours; Monday-Friday, 9am-5pm.
- To be eligible, the student must be enrolled in the Fall 2026 semester.
- Travel to and parking at MDH is the responsibility of the student and costs are included in the stipend.

**APPLY HERE**

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Application will be linked above when it opens.