Population Science Seminar Series

Emerging Nicotine Products in the Era of Artificial Intelligence
Challenges and Opportunities for Public Health

Wednesday, February 25th, 12:00 PM EST via [Zoom Link](#)

The landscape of nicotine products is evolving rapidly, with e-cigarettes, nicotine pouches, and synthetic nicotine as key parts of this change. Meanwhile, Artificial Intelligence (AI) is reshaping both public health and industry practices. In this talk, Dr. Kalan will discuss AI's dual role in nicotine and tobacco research: as a shield for effective risk communication and personalized cessation support; and as a sword powering industry's smart factories, product innovation, and hyper-targeted marketing. He will present his research agenda to develop proactive AI systems for cessation and communication, with emphasis on low-resource settings, and discuss his recent commentary on AI roles in nicotine and tobacco research and regulatory.

Speaker: Ebbie Kalan, PhD

Dr. Ebbie Kalan is an Assistant Professor in the Department of Behavioral and Community Health and the Director of the newly established Artificial Intelligence for Research on Substances: Nicotine & Cannabis (AIRS) Lab at the University of Maryland School of Public Health. His research focuses on nicotine, tobacco, and cannabis use, employing AI-driven surveillance systems, health communication strategies, and policy evaluation to support priority populations, including people of color, youth, LGBTQ+ individuals, people living with HIV, those with mental health conditions, and cancer survivors. Dr. Kalan explores novel applications of AI for real-time risk communication (e.g., health warning labels), nicotine dependence measurement, and proactive cessation interventions through mixed-methods studies spanning laboratory- to population-based settings. Beyond his academic work, he serves as Co-Chair of the Global Tobacco Research Network Outreach Subcommittee and as a Senior Collaborator at the Global Burden of Diseases at the Institute for Health Metrics and Evaluation. He is committed to translating large-scale population-based data into evidence-based practices that promote health equity at the local, national, and international levels.

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