



Lindsey Covell, MPH

Associate Health Scientist

Summary of Experience

Lindsey is an Associate Health Scientist with a Master of Public Health degree from Columbia University. She also holds a Bachelor of Science degree in Biochemistry from Arizona State University. Her primary areas of training include toxicology, environmental epidemiology, biostatistical analysis, risk assessment, and data visualization.

Lindsey has experience contributing to environmental epidemiology studies involving the development of novel biomarkers in human populations. During her graduate studies, she worked as a research assistant investigating the impact of prenatal metal exposures on child neurodevelopment in a cohort population of mother-child pairs. She performed independent laboratory assays followed by biostatistical analysis to quantify the effect of heavy metals on mitochondrial dysfunction from biospecimens.

Education

Bachelor of Sciences (B.S.), Biochemistry, 2019, Arizona State University

Master of Public Health (M.P.H.), Environmental Health Science & Toxicology, 2023, Columbia University

Project Experience

Data Collection and Analysis

Analyzed chemical concentration data from lab reports generated from soil samples that were collected at brownfield sites across New York City. Compiled all chemical concentration data into a functional data framework for use at the New York City Department of Health and Mental Hygiene. Used spatial mapping programs to identify geographical with high chemical contamination.

Professional Experience

Associate Health Scientist, Valeo Sciences LLC, Aug 2023 – present

Contribute to projects within a multi-disciplinary research team that aims to provide solutions for complex questions around human health and safety. Prepare methods that utilize principles of toxicology, exposure science, behavioral science, and risk assessment to evaluate human exposure in various settings, such as occupational, consumer, environmental, and medical.

Graduate Research Assistant, Kupsco Lab, Department of Environmental Health Science, Mailman School of Public Health, Columbia University, May 2022 – Jun 2023.

Optimized environmental epidemiology protocols for isolation and quantification of nuclear and mitochondria genetic material. Analyzed study cohort data comprised of a population of 150+ participants and performed statistical analysis based on a well-developed hypothesis

and preliminary lab studies. Conducted regression and stratification analyses along with detailed code-review of materials in preparation for manuscript publication.

Lead Teaching Assistant, CORE Determinants of Health, Mailman School of Public Health, Columbia University, May 2022 – Jan 2024.

Directed and advised an academic course team that included 13 Teach Assistants, 5 Teaching Faculty and over 450 students. Revised course materials and assignments to ensure technical information was effectively expressed to students based on course and program accreditation requirements. Evaluated students' performance including grading exams, quizzes, assignments, and papers.

Medical Scribe, Scottsdale Emergency Associates, Jan 2019 – Apr 2021.

Accurately documented medical visits and procedures performed by the physician and other medical professionals. Collected and organized all results from medical testing and procedures performed while including physician interpretation withing the patient's medical chart.

Sports Program Coordinator, Arizona State University, Aug 2017 – May 2019.

Collaborated with professional staff to reconstruct and enhance special programs and current documentation procedures. Oversaw team of student staff members who monitor compliance of sport club teams and manages special projects.

Medical Assistant, Vida Volunteer Guatemala, Jun 2018 – Jul 2018.

Documented medical history and used a patient interview to investigate the patient's chief complaint. Performed a physical examination based on patient interview and ran additional tests as needed. Provide an initial patient diagnosis and articulate treatment plan to the clinic physician.

Peer-Reviewed Publications

Reddam A., Bloomquist T.R., Covell L.T., Heng H., Oberfield S.E., Gallagher D., Goldsmith J., Rundle A. G., Baccarelli A.A., Herbstman J.B., Kupsco A. (2023) Negative Association of Cord Blood Mitochondria DNA Copy Number with Childhood Adiposity. Obesity. In review