



EPIDEMIC INTELLIGENCE SERVICE (EIS)



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ABOUT THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH)

NIOSH is part of the Centers for Disease Control and Prevention (CDC) and is the sole federal research agency focused on the study of worker safety and health. There are more than 1,300 employees from a diverse set of fields including epidemiology, medicine, nursing, industrial hygiene, safety, psychology, chemistry, statistics, economics, and engineering. NIOSH has over 40 EIS-trained researchers, many of whom currently serve in supervisory and leadership positions throughout the Institute.



NIOSH Mission

To develop new knowledge in the field of occupational safety and health, and to transfer that knowledge into practice.



NIOSH Vision

Safer, Healthier Workers

NIOSH is a CDC Center with EIS placements in Cincinnati, OH, and Morgantown, WV.



View of the Cincinnati skyline as seen from Over-the-Rhine neighborhood. Photo by Getty Images/Plus

"With rich cultural offerings, award-winning family adventures, an ever-expanding art scene, a foodie's paradise, and breweries galore, this is one picturesque river region with much to explore!"

www.cincinnatiusa.com



View of the downtown area of Morgantown and campus of West Virginia University. Photo by Getty Images/Plus

"A unique mix of college-town and tourism, Morgantown is among the top-rated U.S. cities to live, work, and play."

www.tourmorgantown.com

EIS Officers (EISOs) at NIOSH will not only be trained in applied epidemiology but will also gain unique expertise in the field of occupational safety and health. NIOSH EISOs participate fully in all EIS activities including CDC-wide emergency investigations of non-occupational disease and injury outbreaks in the United States and throughout the world.

An EIS assignment with NIOSH is a training opportunity unlike any other, which prepares officers for a range of rewarding and important post-EIS careers at NIOSH, CDC, and beyond.

EIS AT NIOSH

NIOSH EISOs work on emerging issues in disease and injury prevention and health promotion in workplaces.

NIOSH CORE FUNCTIONS

- Surveillance
- Investigation and response
- Long-term research studies
- Support for the agency through CDC-wide responses

WHY IS OCCUPATIONAL HEALTH IMPORTANT?

- Work is an important determinant of health as people spend a large amount of time at work
- Many work-related illnesses and injuries are preventable
- What we learn about workplace exposures can be applied to protecting communities



NIOSH EISO Laura Reynolds (EIS 2016) draws a blood sample as part of an Epi-Aid to investigate occupational exposure to canine leptospirosis at multiple veterinary clinics and boarding facilities.



NIOSH EISO Kerton Victory (EIS 2014) prepares to leave WHO office in Conakry, Guinea to collect and analyze case investigation forms at the Ebola Treatment Center in Conakry during the 2014 Ebola outbreak.

GAIN EXPERIENCE WITH

- Designing and conducting epidemiologic, medical, and industrial hygiene evaluations at worksites throughout the country
- Analyzing large, population-based surveillance data sets to identify industries and occupations with increased disease and injury risk
- Applying principles of industrial hygiene and ergonomics
- Conducting public health surveillance
- Writing, publishing, and presenting scientific information

“My EIS assignment with NIOSH had a great balance of field and surveillance work on a variety of occupational health topics, which is exactly what I wanted. I also really enjoyed learning in a supportive environment with dedicated mentors and scientists throughout NIOSH.” — Laura Reynolds (EIS 2016)

DIVISION OF FIELD STUDIES AND ENGINEERING (DFSE) – CINCINNATI, OH

FIELD RESEARCH BRANCH

- Conduct large-scale, in-depth studies examining the health effects of workplace exposures
- Major research projects include cancer, chronic disease, musculoskeletal disorders, reproductive health, and epidemiologic methods
- Share findings that are used to inform occupational health regulations and policies to protect workers and recommendations for controlling hazards



Photo by NIOSH

NIOSH EISO Miriam Siegel (EIS 2017) greets a goat living at a racetrack facility where she was helping investigate an occupational outbreak of Legionnaires' disease.



Photo by NIOSH

(From L to R) NIOSH EISOs from the Class of 2012, Anna-Binney McCague, Candice Johnson, and Kimberly Brinker pose at the entrance of the NIOSH Safety Research Coal Mine in Pittsburgh, during the NIOSH Orientation for EIS officers in 2014.

SOME FIELD RESEARCH PROJECTS

- Investigate effects of maternal occupational exposures on pregnancy and birth outcomes
- Assess exposures and long-term health effects in firefighters
- Use workers' compensation claims to investigate and make recommendations to prevent injuries in specific occupational groups
- Explore how parents' occupations are linked to childhood health outcomes
- Develop projects to best suit your interests



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National Institute for Occupational Safety and Health

Learn more about EIS opportunities at NIOSH with DFSE in Cincinnati, OH
Jess Rinsky, PhD, MPH (EIS 2015)
YWC8@cdc.gov
www.cdc.gov/niosh/eis.html

DIVISION OF FIELD STUDIES AND ENGINEERING (DFSE) – CINCINNATI, OH

HAZARD EVALUATION & TECHNICAL ASSISTANCE BRANCH (HETAB)

HETAB administers the Health Hazard Evaluation (HHE) Program. Through this program, we help employees, unions, and employers evaluate health hazards in the workplace and make recommendations to prevent workplace illnesses and injuries. HETAB offers EISOs opportunities to:

- Investigate workplace safety and health in all 50 states and U.S. territories
- Evaluate many types of hazards including: biological/infectious, chemical, physical, and psychosocial hazards
- Experience field work and conduct epidemiologic investigations involving questionnaire design, biological monitoring, medical exams, industrial hygiene sampling, data analysis and interpretation, and formulation of recommendations
- Provide recommendations to prevent and control workplace health hazards, illnesses, and exposures



NIOSH EISO Sophia Chiu (EIS 2015) takes a wipe sample for metals and minerals on commonly touched surfaces at a vape shop as part of a HHE.

SAMPLE INVESTIGATIONS

- Multi-drug resistant tuberculosis cluster affecting two workplaces (Ohio)
- Exposure to opioids in first responders and laboratory workers (multiple states)
- Exposures to metals and noise at an aircraft parts manufacturer (Oregon)
- Lead exposures in a bullet manufacturing plant (Missouri)
- Mass bat exposures at a national park (Wyoming)
- Mercury exposures among workers processing gold (Guyana)
- Brucella exposures at a feral hog slaughterhouse (Texas)



NIOSH EISO David Jackson (EIS 2017) leads an HHE at a bullet manufacturer to investigate worker exposures to lead.



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DIVISION OF FIELD STUDIES AND ENGINEERING (DFSE) – CINCINNATI, OH

HEALTH INFORMATICS BRANCH

Using occupational health surveillance and informatics methods, the Health Informatics Branch (HIB) identifies and monitors trends in traditional and emerging worker exposures, illnesses, and injuries. Working with state and federal partners, we use surveillance data to research pesticide poisonings, lead exposures, and noise-induced hearing loss. We also examine associations between jobs and infectious and chronic diseases, health behaviors, and psychological stress. HIB offers EIS officers opportunities to:

- Study a variety of outcomes including traditional and emerging issues
- Evaluate diverse surveillance systems
- Analyze several types of data (e.g., case reports, national surveys)
- Participate in field work when opportunities arise



PHOTO BY NIOSH

(From L to R) ORISE Fellow Deirdre Green, CDC Principal Deputy Director Anne Schuchat (RADM, USPHS, RET, EIS 1988), and NIOSH EISO Laurel Harduar Morano (EIS 2017), pose for a photo op at the 2019 EIS Conference in Atlanta, Georgia.



PHOTO BY NIOSH

(From L to R) NIOSH EISOs Kerton Victory (EIS 2014), Chia-ping Su (EIS 2015), and Rebecca Tsai (EIS 2011) attend an All Hands Meeting.

SAMPLE PROJECTS

- Described occupational groups with high proportions of drug and opioid-specific overdose mortality
- Developed methods to collect and analyze work information for notifiable conditions, including infectious diseases
- Provided surveillance data to drive revised federal standards to protect farmworkers from pesticide exposures
- Worked with partners to develop a new blood lead reference level for adults (5 µg/dL) to protect workers from health effects that can occur at blood levels once considered safe
- Raised public awareness of the problem of insufficient sleep among night shift workers with an MMWR report that inspired a story on NBC Nightly News



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RESPIRATORY HEALTH DIVISION (RHD) – MORGANTOWN, WV

RESPIRATORY HEALTH

The Respiratory Health Division houses the Field Studies Branch and the Surveillance Branch, whose mission is to advance protection against work-related hazards and exposures that cause or contribute to respiratory illness, injury, and death and to promote workplace-based interventions that improve respiratory health.

WHAT WE DO

- Study asthma, COPD, lung scarring, infections, and other unique respiratory illnesses
- Discover new diseases and their causes
- Learn from experience of our physicians, epidemiologists, veterinarians, industrial hygienists, and engineers
- Conduct field investigations, surveillance, and research — all in the same assignment
- Help EISOs develop skills that are transferable to diverse fields in public health



NIOSH EISO Megan Casey (EIS 2014) analyzes data in the field while on deployment to Sierra Leone during the 2014 Ebola outbreak.



NIOSH EISO Cara Halldin (EIS 2011) reviews vaccination records with local health center staff at a clinic near Kisumu, Kenya, as part of an Emergency Operations Center Polio Response Deployment to evaluate vaccination coverage and acute flaccid paralysis surveillance in Kenya, 2012.

SAMPLE FIELD STUDIES BRANCH PROJECTS

- Lung disease in coffee processing workers
- Chronic beryllium disease
- Flavoring-related lung disease
- Lung disease in healthcare personnel

SAMPLE SURVEILLANCE BRANCH PROJECTS

- Black lung in Appalachian coal miners
- Silicosis mortality
- Health effects of oil and gas drilling
- Pneumococcal vaccination and work-related asthma



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at NIOSH in Morgantown, WV
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IEZ1@cdc.gov
www.cdc.gov/niosh/eis.html

DIVISION OF SAFETY RESEARCH (DSR) - MORGANTOWN, WV

SAFETY RESEARCH

The Division of Safety Research is the focal point for traumatic injury research at NIOSH, and through our research we seek to identify, reduce, and prevent work-related injuries and deaths across all industries. Our research programs are rooted in a public health approach, which includes:

- Injury data collection and analysis
- Analytic epidemiology
- Field investigations
- Field research
- Protective technology
- Safety engineering
- Health communication

RESEARCH TOPICS

- Motor vehicle incidents and crashes
- Falls
- Workplace violence
- Machinery and industrial vehicles
- High-risk jobs and vulnerable workers



NIOSH EISO Christina Socias-Morales (EIS 2013) gathers information from US Air Force colleagues in Ramstein, Germany to inform an epidemiologic evaluation of the Air Force's fall injury prevention program.



NIOSH EISO Cammie Chaumont Menendez (EIS 2007) collects data for her research on taxi driver safety.

DSR CENTERS & PROGRAMS

- Center for Motor Vehicle Safety
- Center for Occupational Robotics Research
- Fatality Assessment and Control Evaluation (FACE) Program
- Fire Fighter Fatality Investigation and Prevention Program (FFFIPP)
- Human Factors and Safety Engineering Research Program

TECHNOLOGY & PRODUCTS

- Ladder Safety App
- Workplace Violence Prevention Training for Nurses
- Improved EMS Worker Safety Through Ambulance Design and Testing Video Series
- Behind the Wheel at Work newsletter



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Get More Information

Find NIOSH products and get answers to workplace safety and health questions:

1-800-CDC-INFO (1-800-232-4636) | TTY: 1-888-232-6348
CDC/NIOSH INFO: cdc.gov/info | cdc.gov/niosh
Monthly *NIOSH eNews*: cdc.gov/niosh/eNews.



Promoting productive workplaces through safety and health research