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Resources for Environmental Health Impact Assessment in New Jersey: EOHSI and CEED

New Jersey Health Impact Collaborative:
Health Impact Assessment in New Jersey

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Robert Laumbach M.D., M.P.H., C.I.H
laumbach@eohsi.rutgers.edu



Resources for Environmental Health Impact Assessment

Environmental and Occupational Health Sciences Institute



- Founded in 1986 to address environmental issues in New Jersey with a focus on chemical toxicology and exposure
- Inter-disciplinary and inter-institutional collaboration (former UMDNJ and RU)

NIEHS Center for Environmental Exposure and Disease (CEED)



- 26th year of continuous funding from NIEHS
- Like EOHSI, a center for interdisciplinary research
 - Toxicology
 - Exposure science
 - Epidemiology
 - Environmental and Occupational Medicine

Examples of HIA projects within EOHSI and CEED areas of expertise:

- Transportation projects
 - HIA of diesel engine retrofit programs
 - Roadway and transit projects
- Siting of schools and other sensitive-receptors
- New/altered facilities
 - Power plants and other energy facilities
 - Industrial
 - Development and re-development
- Environmental contamination projects
 - Eg. chromium



Areas of scientific expertise:

- Air pollution impacts of point sources, traffic sources
 - Exposure assessment
 - Modeling
 - Measurement
 - Human behavior
 - Microenvironmental to macroenvironmental
- Health effects assessment
 - Epidemiology
 - Toxicology
 - Evidence-based assessment: table-top to full-blown risk assessment



Specific capabilities

- Comprehensive exposure measurement
 - Air (indoor and outdoor), water, soil, food
- Analytical laboratories
 - Quantification of organics, metals, in a wide variety of matrices including biological samples
- Computational Chemodynamics Laboratory
 - Dispersion modeling, fluid dynamics, simulations, physiologically-based pharmacokinetics
- Epidemiology
- Risk assessment
- Medical toxicology and clinical prevention



Response to the attack on the WTC on 9/11



Analysis of
dust /smoke

Risk
communication
in communities

Inflammatory
effect of dust

EOHSI

Public health
preparedness



WTC first
responder
surveillance
and treatment

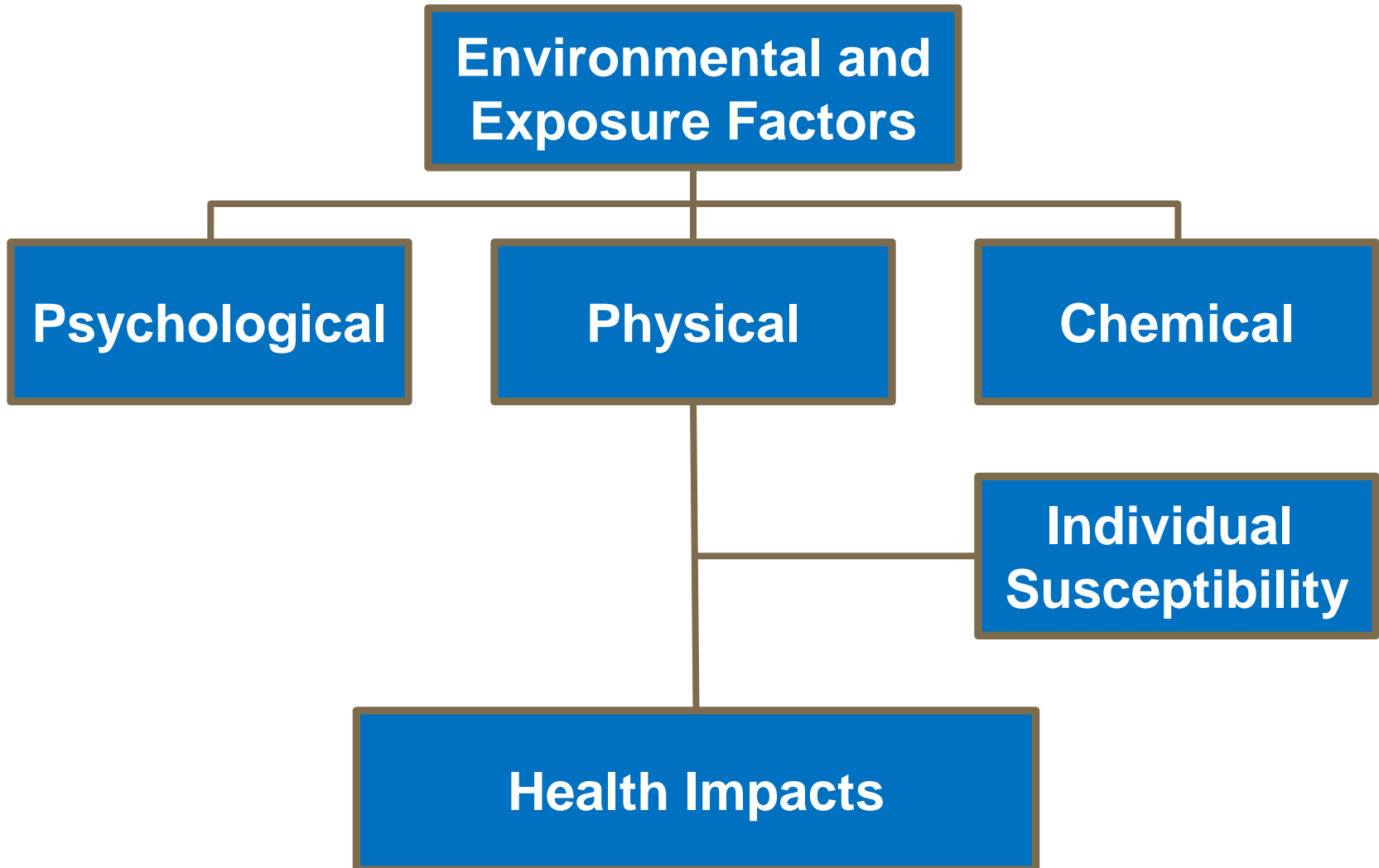
Plume modeling
Exposure and
health outcomes



Chromium Exposure and Health Effects in Hudson County NJ



Human-Environment Interface



EOHSI and CEED

- World-class resources for assessing environmental health impacts and developing creative solutions
- A long history of assisting NJ and regional communities
- Ready to collaborate with local and state government, NGOs, and community groups to improve environmental health