

# **Illinois Community of Excellence in Environmental Health (CEEH): Building Partnerships through Health Hazard Evaluations, Training, and Pilot Projects**

**Great Lakes Center for Occupational and Environmental Safety & Health, School of Public Health, University of Illinois at Chicago**

[www.uic.edu/sph/glakes/coe](http://www.uic.edu/sph/glakes/coe)

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## **Project personnel:**

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**Director of HHEs: Peter Scheff, PhD, CIH**

# Training

## 3 types of Web-based Courses

- EnviroRisk  
<http://www.uic.edu/sph/cade/enviroRisk/>
- Webcasts (18 total)
- Seven on line courses

# Webcasts: [www.uic.edu/sph/glakes/excellence](http://www.uic.edu/sph/glakes/excellence)

- [Disease & Vector Management of West Nile Virus](#)
  - [Taking an Environmental History](#)
  - [Cancer Clusters](#)
  - [Taking an Occupational History](#)
  - [Spotlight on Children's Environmental Health](#)
  - [DPH Safe Chemicals in School Projects](#)
  - [Industrial Hygiene: Assessment, Controls, Design and Prevention](#)
  - [West Nile Virus Update](#)
- Applications:
    - Answer technical assistance questions
    - Content in other web-based courses
  - Most viewed
    - Cancer clusters
    - Safer pesticide use
    - Taking an Environmental History

# *Environmental Health*

## **PH 470 Series Syllabus & Resources**

- **[PH 470 Series Syllabus](#)**
- **[PH 470 Series Resources](#)**
- **PH 470 Series (Environmental Health) Courses**
- ***Public Health 470 Series***
- **PH 471: What Is Environmental Health?**
- **PH 472: Human Health Effects of Environmental Exposures**
- **PH 473: Source and Hazard Assessment**
- **PH 474: Qualitative Risk Assessment**
- **PH 475: Environmental Health Risk Communication**
- **PH 476: Quantitative Exposure Assessment: Lead Poisoning**
- **PH 477: Environmental Prevention and Control: West Nile Virus**
- **Readings (*no text; learning resources are identified in each course*)**

**[www.uic.edu/sph/glakes/ce](http://www.uic.edu/sph/glakes/ce)**

- Participant backgrounds: public health practitioners; practitioners desiring to broaden skills
- Housed in Illinois Public Health Preparedness Center
- Participation to date 20

# Classroom based courses

- Mold and Moisture Introduction
- Mold and Moisture 2 day course (2X)
- Recognition, Assessment and Prevention of Bio Chemical Incidents
- Radon Inspection
- Radon Mitigation
- Core Curriculum in Environmental Health (3X)

# PACE EH

- Oak Park Department of Public Health
  - Completed tasks 1-9
  - Process included high school students, community members and academic community
  - Next step to rank issues and set priorities for actions
- Chicago Department of Public Health
  - Focus on lead and other indoor hazards completed tasks 1-12
  - Implementing intervention effectiveness research project

# HHE Program

## Objectives

- To investigate environmental public health issues outside scope/capacity of public health agencies
- To provide local PHs techniques for investigation
- Historical precedent at UIC/GLC
- Justification: CEEH Task Force agreed that HHEs must:
  - Address a community health issue;
  - Coordinate w/ Illinois Department of Public Health, and;
  - Include participation w/ local PH personnel where possible

# Proposed HHE work

- Center proposed 2-3 HHEs per year
- Budget funds some salaries, travel, consultant costs, supplies

## Current status

- 1 full HHE completed
- 1 HHE/Tech assistance complete w/EIS report filed; we are authoring environmental investigation portion
- 2 more HHEs near completion
- 1 in progress
- Bioaerosol lab assistance to 1 histoplasmosis outbreak investigation and 1 IDPH investigation

# Current HHE Projects

- 1) Sandburg High School IAQ investigation
  - Participation: Coordination with IDPH and local PH Department: Cook County DPH
  - Number of people affected: 3500 staff and students
  - Probable source of complaints: Insufficient ventilation and system configuration; potential sources of bioaerosols
  - Complete, report disseminated

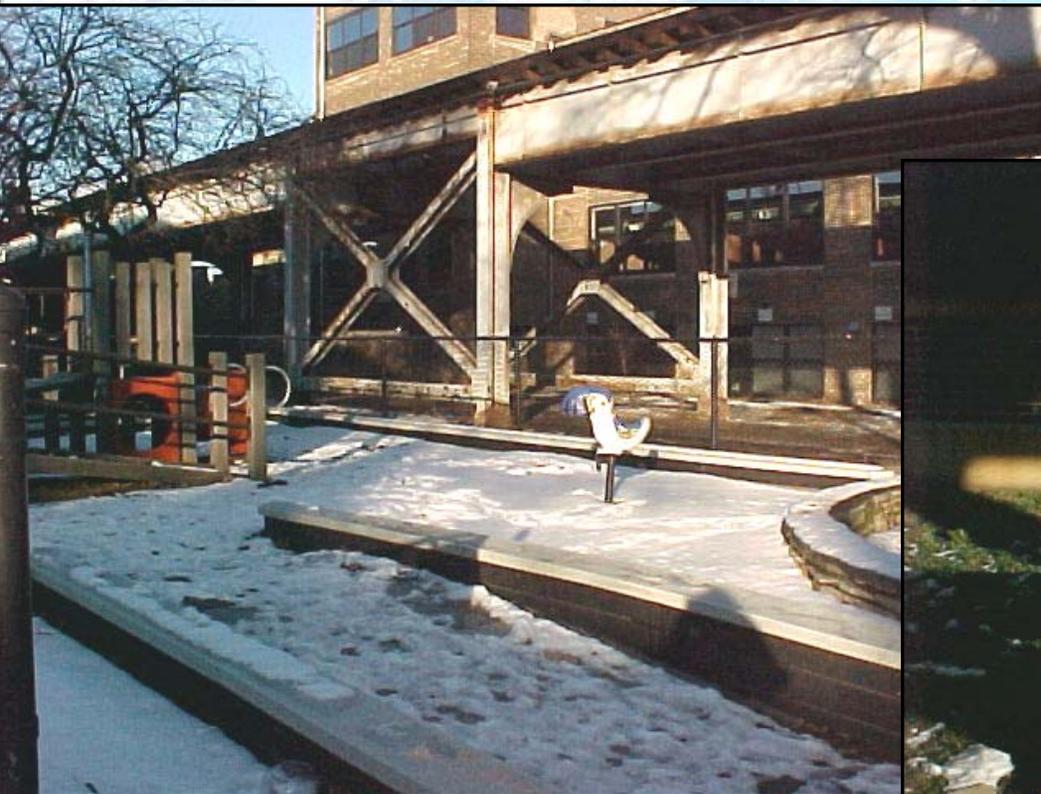
# Current HHE Projects

## 2) Soil Lead Contamination in Playgrounds near Chicago Transit Authority (CTA) Elevated Train Lines

- Participation: Local HD coordination w/ CDPH CLPPP
- Number of people affected: In hundreds
- Background: CLPPP inspector observed unsafe track renovation practices; investigation of nearby playground found LBP and debris

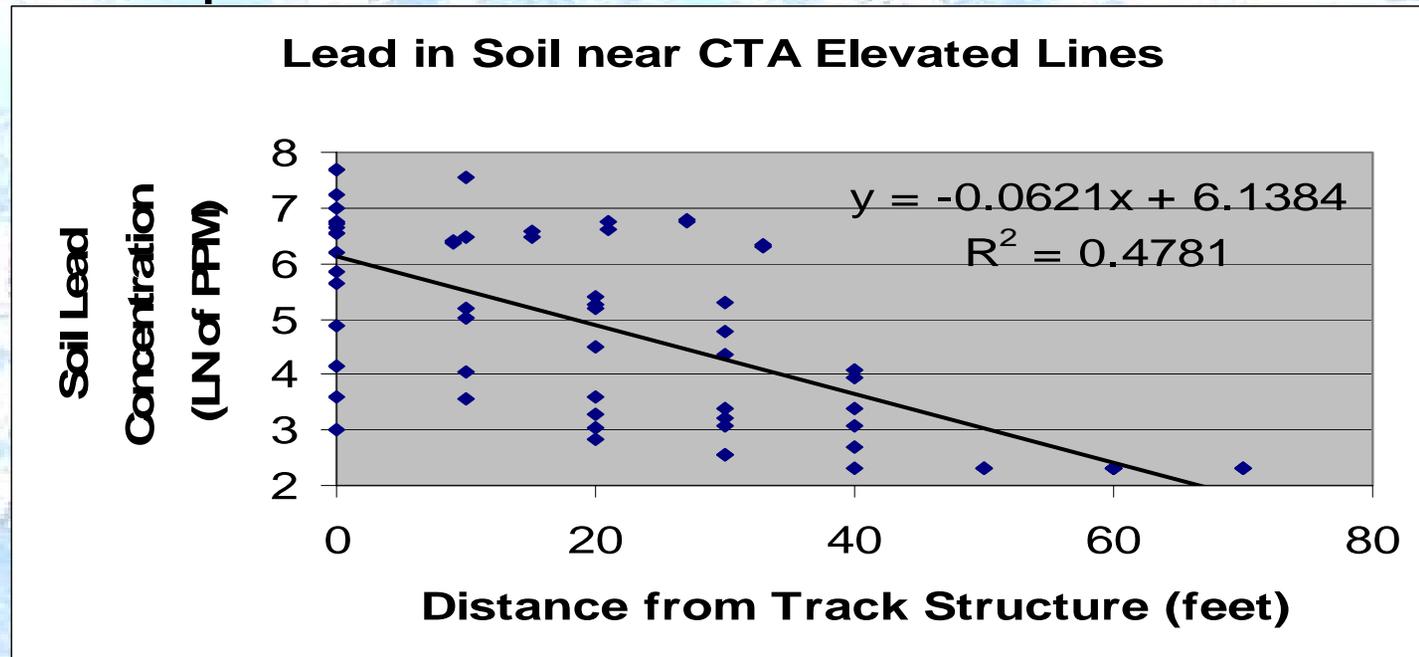
# Soil lead

- Probable source: Paint deterioration and uncontrolled renovation
- Playgrounds (day-care and park district playlots) located near elevated structures



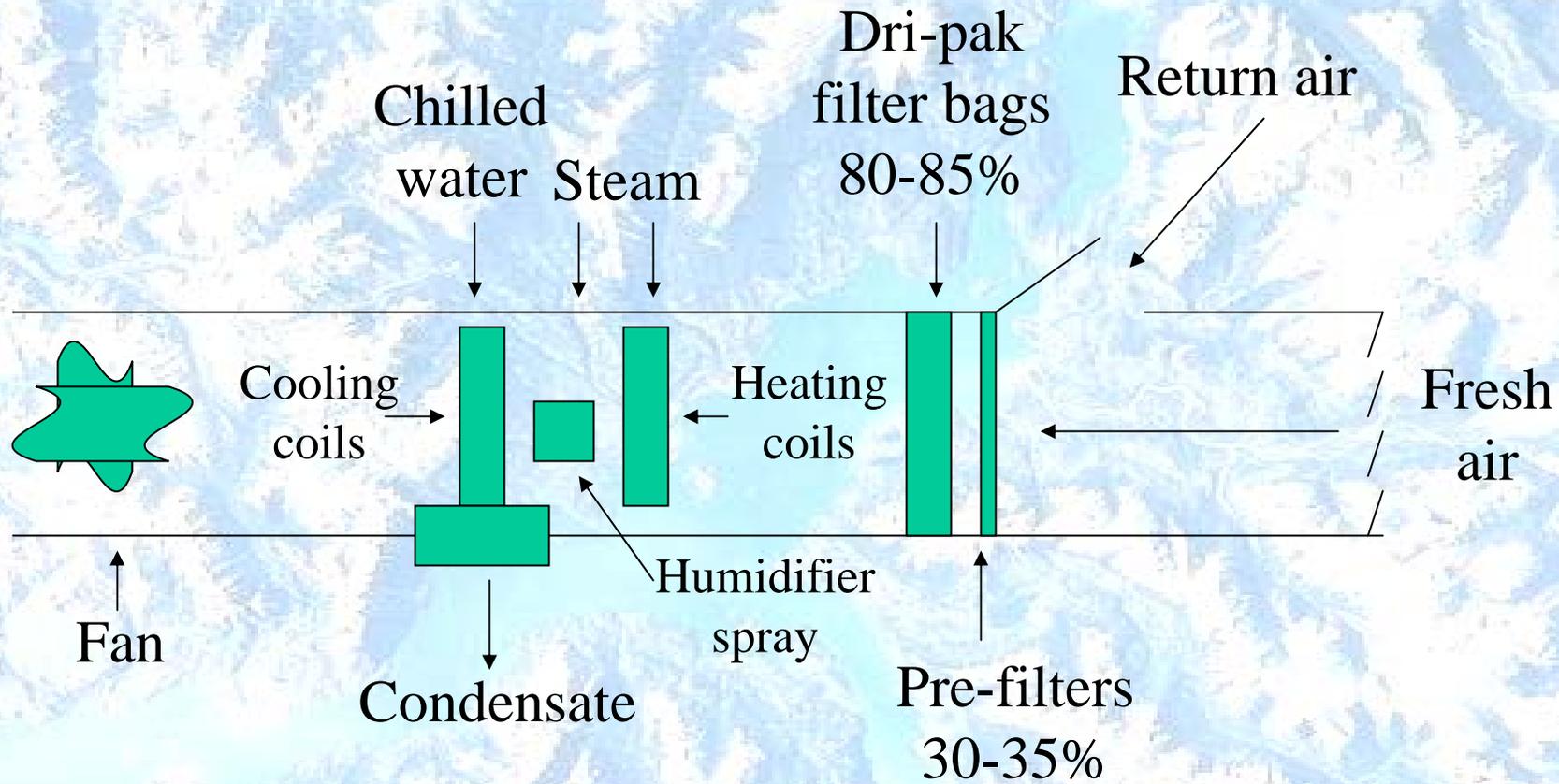
# Soil Lead

- Scope of work: Investigate lead concentrations and gradients by distance, soil type, and renovation of CTA elevated tracks near day care and park play areas
- Completed 14 sites and 107 soil samples; track structures also tested with XRF; ICP-MS samples to be collected for paint & soil



# Current HHE Projects

- 3) Environmental Source of a Fungal Pathogen at an Outpatient Health Care Clinic: Technical Assistance
- Participation: IDPH, CDC, Local PH was informed and participated in 1 site visit
  - Background: 4 patients w/ fungemia from rare organism, source unknown; no previous cluster >2 persons; no environmental source previously found
  - Number of people affected: Monthly census: 180-250 patients
  - Scope of work: Lit review; site inspection; suggest sources; assist with organism ID; numerous site visits and samples of fluids and surfaces collected
  - Probable source: Positive ID of HVAC system source; case epidemiology provides plausible route of infection



Organisms found in condensate water  
matched cases

# Current HHE Projects

## 4) Environmental Source of a Fungal Pathogen at a Public Facility

- Participation: IDPH and building management
- Background: 2 occupants w/ aspergillosis, invasive fungal pathogen
- Number of people affected: 1800 occupants
- Scope of work: Evaluate pre-/post-remediation sampling data; perform site visit; provide recommendations
- Probable source of bioaerosols and possible source of *Aspergillus*: Water intrusion, especially in glass windowed atrium and below ground records storage locations, plumbing leaks
- Data review and site visit complete, report pending

# Current HHE Projects

## 5) Potential asbestos exposure at Illinois Beach State Park

- Participation: IDPH, IDNR, IEPA, EPA Air and Superfund, Illinois Attorney General, US Army Corp of Engineers
- Background: Asbestos debris washing on beach and some inland areas of park; nutrient sand sources also affected?
- Number of people affected: Thousands of annual visitors, park staff
- Scope of work: Evaluate previous sampling data, site visits, identify sampling technique for low level exposures, provide sampling plan for background and nutrient sand, evaluate risk, provide recommendations
- Probable source: Previous residential construction, adjacent asbestos manufacturing Superfund site
- Sampling pending

# Loss of beach from erosion



Adjacent superfund site (power generation plant in background)



# HHE Summary

- Current infrastructure (EOHS equipment, bioaerosol lab, faculty expertise, contacts & GLC personnel support) provides resources for HHEs
- Program enhances contact and cooperation with IDPH, local HDs, environmental and enforcement agencies; enhances sharing of expertise
- CEEH able to faculty locate sufficient candidates for HHEs
- Program support and matching resources near adequate for current level of activity
- Great program

# Pilot Project Research Training Program

- Purpose: To support local health departments in research involving the recognition and response to public health issues
- Additional goals:
  - To promote community-based intervention research
  - To develop research partnerships between public health agencies, individuals, and other institutions.

# PPRT Current Progress

- Program modeled on NIOSH Pilot Project Research Training (PPRT) small grants
- Partnerships work best; local PHs usually do not have research experience
- 2 proposals approved, IRB approval and contracts nearly completed
- 3<sup>rd</sup> pending
- Lessons learned:
  - Human subjects review can impact the time line for small grants start-up & completion
  - Most local PHs have no mechanism in place to accept awards directly
  - Cooperative agreements/ partnerships between local HDs and UIC researchers expedites process

# Illinois CEEH Summary

- Training programs
  - On track and providing relevant information
- PACE
  - On track
- HHEs
  - On track, building partnerships and providing valuable services
- Pilot Project Research Training program
  - On track

Program's multiple levels of contact w/ HDs  
improve coordination and delivery of services