NEW YORK STATE OF OPPORTUNITY. Department of Health

New York State School Environmental Health Program

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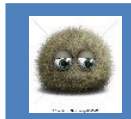
New York State Department of Health

Program Background

- Statewide
- All resources are FREE
- **Not** regulatory
- For all K-12 schools in NYS
  - Public
  - Private/Independent/Religious
  - Charter
  - Tribal
- Development began in 2012

Nine Focus Areas

- Indoor Air Quality (IAQ)
- Climate Action
-  Mold/Moisture
- Integrated Pest Management (IPM)
- Construction/ Renovation
- Chemical and Environmental Hazards
- Cleaning and Maintenance
- Transportation
- Water Quality

Steering Committee

- Integral to the success of the program
- Members include state and federal agencies and a variety of non-governmental organizations (many representing school-related professions)
- >45 active members representing key organizations
- Provide feedback and guidance, help with outreach, promote the program, and assist with implementation
- Meet Spring and Fall for a half day

Key Partners

- New York State Education Department
- New York State Department of Environmental Conservation
- New York State Department of Labor
- New York State Energy Research and Development Authority
- New York State Integrated Pest Management at Cornell University
- New York City Department of Education
- New York City School Construction Authority
- New York State Children's Environmental Health Centers
- New York State United Teachers (NYSUT)
- New York State School Boards Association
- Healthy Schools Network
- American Lung Association
- Boards of Cooperative Educational Services (BOCES)
- Various other NGOs, unions, etc.

INFOGRAPHIC SERIES

Indoor Air Quality (IAQ)

Improve indoor air quality with visual assessments, increased air supply, and upgraded filtration

Visual Assessment

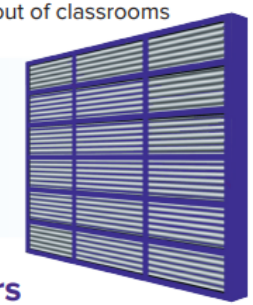
- Perform a building walk-through
- Conduct an evaluation of operations using an IAQ checklist

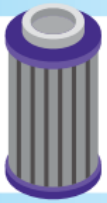
Increase Ventilation Rate

- Increase outdoor air supply
- Check that doors, windows, fans, and vents are free of obstructions and working properly
- Verify that air is coming into and exhausting out of classrooms

Increase HVAC Filter Efficiency

- Upgrade air filters and replace regularly
- Use the highest Minimal Efficiency Rating Value (MERV) rating compatible with your mechanical system





Supplement with Portable Air Filters

- Easily placed and relocated
- Cost-effective and widely available

Health Benefits

- Reduce asthma symptoms
- Reduce transmission of COVID, Flu, and other respiratory viruses
- Remove particles – dust and mold
- Remove chemicals – VOCs and some odors

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Mold & Moisture Prevention

The key to preventing mold is moisture control.

Perform Visual Assessments

- Conduct routine building walk-throughs to look for issues that can lead to mold problems
- Look for water damage or stains, wetness, dampness, or visible mold
- Pay attention to leaks, drainage, and condensation where water could enter the building

Perform Preventive Maintenance

- Fix leaks and sources of moisture as soon as possible
- Clean and dry wet or damp spots within 24 - 48 hours
- Use fans and a wet-dry vacuum to facilitate drying
- Use cross ventilation to dry out the building
- Discard damaged materials that cannot be cleaned such as carpeting, upholstery, drywall, tiles, or insulation
- Clean hard surfaces with soap and rinse with clean water
- Maintain ideal indoor humidity of 30% - 60% with the use of air conditioning or portable dehumidifiers
- Cycle air conditioning when the building is vacant to mitigate high humidity

Health Effects of Mold

- Sneezing, eye irritation, congestion, runny nose, cough, and dermatitis
- People with mold allergies or other underlying health conditions may have more severe symptoms

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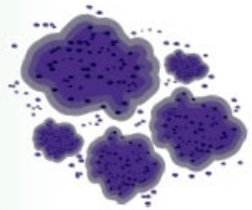
Mold & Moisture Remediation

Take steps to identify mold and use the appropriate cleaning methods to address mold and moisture problems.

Recognize Mold



- Mold can be identified through visual inspection
- Molds have various colors depending on their life cycle and species and often appear fuzzy or slimy
- Mold growth usually produces a distinct musty, earthy odor
- Air sampling is **not** necessary to detect mold in buildings

Prepare for Remediation

- Correct the water and moisture problems causing mold growth to prevent regrowth
- Ensure the affected area is dry before proceeding with remediation. Visit **www.epa.gov/mold/mold-remediation-schools-and-commercial-buildings-guide-chapter-4**
- Isolate the moldy area by creating a containment area to avoid releasing mold outside the work area
- Use exhaust fans to remove mold and dust from the contained area to the outdoors
- Stage debris inside the work area and avoid tracking through other areas
- Avoid unnecessary exposure by wearing personal protective equipment. Use an N95 respirator, disposable coveralls, gloves, and goggles

Clean the Moldy Area

- Use a dry-wet vacuum or HEPA vacuum
- Carefully remove damaged materials
- Clean hard surfaces with soap and rinse with clean water
- Ensure affected areas are completely clean and dry before rebuilding or repairing damage

Health Effects of Mold

- Sneezing, eye irritation, congestion, runny nose, cough, and dermatitis
- People with mold allergies or other underlying health conditions may have more severe symptoms

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Radon

Radon is a naturally occurring, colorless, odorless, radioactive gas that can get into any type of building, including school buildings.

Radon Entrance Points

- Cracks in solid floors and walls
- Cavities inside walls
- Construction joints
- Exposed soil, as in a sump
- Cracks between poured concrete (slab) and blocks
- Loose fitting pipes
- Water supply

Radon Testing

- Radon levels may be highly variable from one building to the next.
- Radon testing is strongly encouraged, inexpensive, and easy
- Testing is the only way to know if your school has high levels of radon
- Testing should be done every five years, or two years with a mitigation system in place
- Radon remediation should be considered for radon levels between 2 pCi/L and 4 pCi/L and is **recommended** for levels of 4 picocuries/liter (pCi/L) or more
- Preventive design and construction measures must be taken if a school is constructed in an area with 11% or more of homes with radon estimates above 4 pCi/L
- It is the school district's responsibility to be aware of the geological potential for high levels of radon and to test and mitigate as appropriate. Visit **www.wadsworth.org/radon**

Health Effects of Radon

- Radon is the leading cause of lung cancer among non-smokers
- Lung cancer risk in children may be almost twice as high as in adults
- Radon exposure can increase the risk of developing chronic illnesses such as emphysema, interstitial pneumonia, and pulmonary fibrosis

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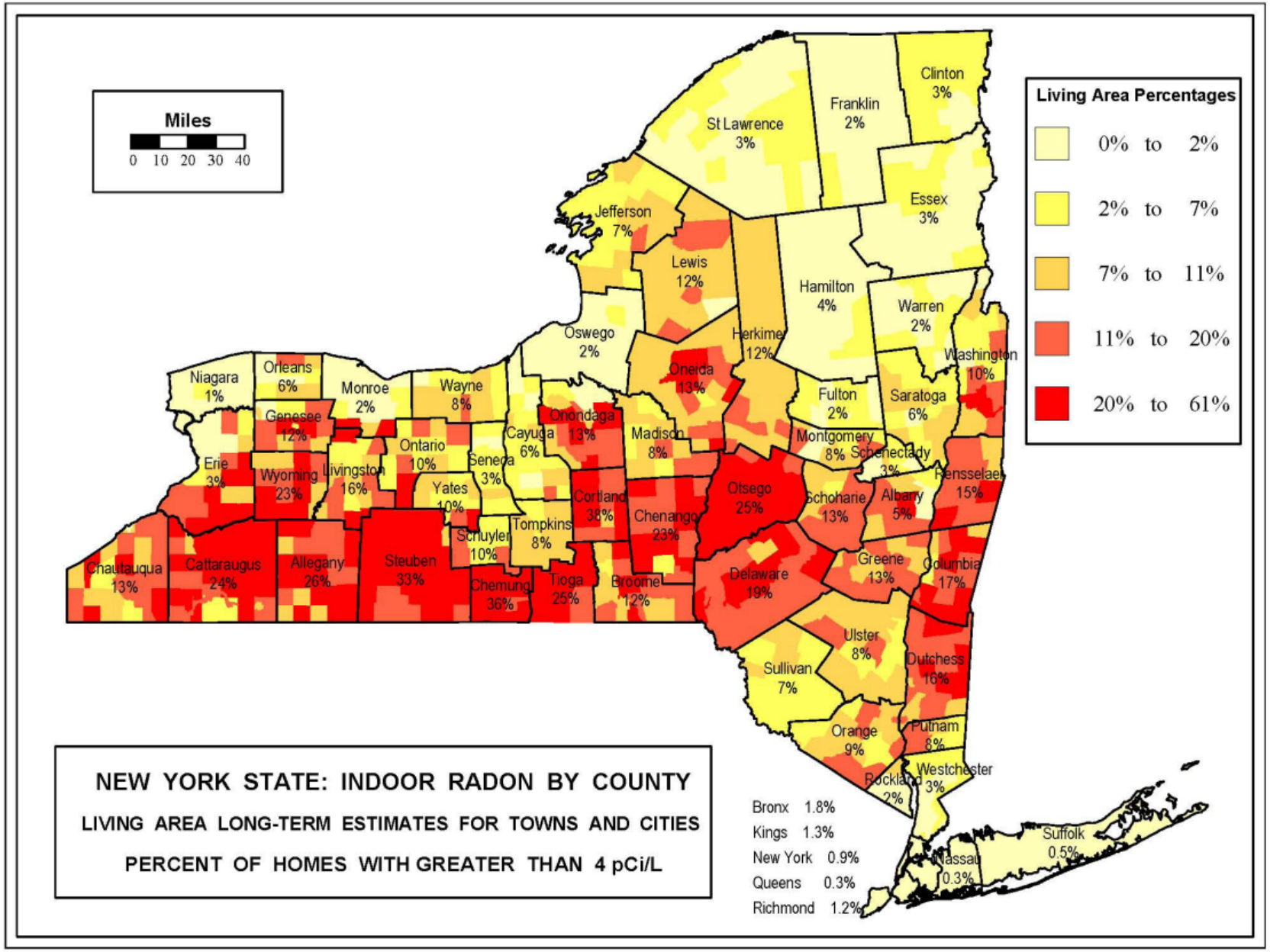

County Maps
www.wadsworth.org/radon

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Managing Chemicals in Schools

Hazardous chemicals can be found in many different areas and materials throughout school buildings.

Use Cleaner, Greener Chemicals and Products

- Adopt a "Green Chemistry" approach to minimize the use of hazardous chemicals and increase awareness of sustainability practices
- For resources on green chemistry in science classrooms, visit **www.beyondbenign.org**
- New York State's Green Cleaning Law requires schools to purchase and use environmentally sensitive cleaning and maintenance products
- For additional resources on approved products and how to build a greener, healthier school environment, use the link at the bottom of this page.

Perform a Chemical Inventory

- Identify all storage locations
- List all chemicals, their quantities, and expiration dates
- Complete a chemical inventory using the template on the back of this page

Chemical Cleanout, Organization, and Storage

- Dispose of outdated and unused chemicals properly, either through a hazardous waste contractor or your local municipality
- Organize remaining chemicals using the **Flinn method**, by organic and inorganic and compatible families, **or** using the **Color-coding method**, which assigns a color to each hazard classification (i.e., blue = health hazard; red = flammable)
- For more information on proper chemical storage, management, and disposal, use the link at the bottom of this page

Manage Chemicals

- Ensure the school has up-to-date safety data sheets (SDSs) for all chemical products
- Develop and maintain a Chemical Management System to address chemical spills, conduct cleanouts, and other ways to manage chemical hazards

Health Effects of Chemicals

- Chemicals can worsen student and staff health symptoms and conditions
- Chemical products used in schools can contain ingredients that are corrosive, toxic, irritants/sensitizers, that worsen asthma, or disrupt hormones

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Green Cleaning

NYS Regulation (Chap 584, Laws of 2005) requires schools to procure and use environmentally sensitive cleaning and maintenance products under the guidelines provided by the Office of General Services (OGS)

Green Cleaning: Using cleaning products and practices that have a lesser or reduced effect on human health and the environment.

Five Steps to Green Cleaning

1. **Groundwork:** Build a Green Cleaning Team, develop a Green Cleaning Program, and build support for the program
2. **Assessments:** Conduct a Green Cleaning Baseline Assessment to compare existing cleaning practices with green cleaning practices
3. **Planning:** Identify and prioritize goals and objectives, document custodial resources and budget, establish a timeline, draft the program, and seek stakeholder comments
4. **Implementation:** Implement program, communicate progress regularly, evaluate, seek feedback, document lessons learned, and stay on track
5. **Evaluation:** Evaluate program progress

Purchase Green Cleaning Products

- The GreenNY Icon (pictured at right) identifies products that meet approved green procurement specifications for NYS agencies and authorities
- For information about green purchasing, including a list of approved specifications for cleaners, and a list of contracts with green products, visit **www.ogs.ny.gov/greenny-purchasing-requirements-and-tools**

Health Effects of Toxic Chemicals, Including Harsh Cleaners

- Acute exposure: chemical burns/serious injury to eyes, skin, lungs, headaches, central nervous system effects
- Chronic exposure: Asthma, cancer, reproductive and developmental toxicity, endocrine disruption

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Lead Testing in School Drinking Water

All NYS public schools and Boards of Cooperative Educational Services (BOCES) are required to test all potable water outlets for lead and take action if lead levels exceed 5 micrograms/liter (ug/L)

Sampling

- Complete first draw within compliance period (1/1/23 - 12/31/25) and monitor every 3 years
- Samples must be collected at all outlets used for drinking/cooking
- Collect samples from a cold-water outlet before any water is used and that has been motionless for 8-18 hours
- **No** exemptions for "lead-free" buildings

Response to Action Level Exceedance (over 5 ug/L)

- Immediately take outlet(s) out of service for drinking/cooking. With signage, outlet(s) can still be used for cleaning and handwashing
- Provide alternate drinking water free of charge
- Implement remediation action plan
- Conduct post-remediation testing

Public Notification & Reporting Requirements

- Within 1 business day of receiving results: Report results over 5 ug/L to Local Health Department
- Within 10 business days of receiving results: Notify staff/parents/guardians of results over 5 ug/L in writing and report all results to NYSDOH using the electronic reporting application HERDS on the Health Commerce System. Visit **www.commerce.health.state.ny.us**
- Within 6 weeks of receiving results: Post copies of lab reports with lead results and remediation action information on school website

Recordkeeping

- Retain records for 10 years
- Provide copies to New York State Department of Health, New York State Education Department, and Local Health Departments upon request

Best Practices to Reduce Lead in Drinking Water

- Clean aerators
- Practice routine flushing (after vacations and long weekends)
- Use only certified lead-free plumbing materials
- Follow the manufacturer's recommendations for water softener settings
- Educate staff/students to let water run for 30-60 seconds or until it feels cold

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Infographic Uses

- General knowledge handout
- Share with Health & Safety Committees for meeting discussions
- Quick reference for school staff and administrators
- Identifies the School Environmental Health Program as a resource
  - We refer questions and requests to our subject matter experts when we are not the experts!

Overview of Next 5 Years

- Bi-monthly “chat with an expert” sessions
- Bi-monthly webinar series
- Regional seminars
- Statewide conferences
- Tabling/information events
- IAQ Monitoring Tool
- School environmental health summary reports
- National Work Group for K-12 IAQ Programs
- Training certification
- Evaluation, reports, and manuscripts

Chats/Webinars

- Bi-monthly webinar series
  - Longer presentations from subject matter experts
  - January: Mold in Schools
- Bi-monthly “chat with an expert” sessions
  - Short discussions with a subject matter expert
  - Q&A with an expert
  - February: NYS required Health and Safety Committees- How to effectively use them to be proactive in improving IAQ
- Both are aimed at promoting awareness and fostering a community of practice
- Will archive webinars and other recordings

Regional Seminars

- 25 regional seminars per year for each of 5 years
  - 10 were conducted in April and May 2024
  - 10 were conducted in February and March 2023
- Half-day seminars with ~3 presentations with time for Q&A
- A demonstration walk-through to discuss real world examples of areas to make improvements
- Offer continuing education credits
- Offer stipends to travel, cover substitutes, etc.

Example Seminar Agenda

Times	Topic	Presenter
11:30 - 11:40	Welcome & Introductions	Host
11:40 - 12:15	Lead in School Drinking Water Testing	Tia Marks, PhD, NYS School Lead in Drinking Water Program
12:15 - 1:00	Inspecting & Assessing Indoor Air Quality & Mold	NYS SEHP: Todd Crawford, NYS DOH Research Scientist
1:00 – 1:15	Break	
1:15 -2:00	Pesticides and Schools	Dan Wixted, Pesticide Safety Education Program (PSEP) Cornell Cooperative Extension
2:00-3:00	Facility Walk-Through	Todd Crawford (large group, video-supported presentation followed by a small, in-person walk-through)

Site Walk-throughs

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Our Experts stepped up to show us real world examples!

Potential Topics Covered

- Pesticide Use in Schools
- PESH as a Consultative Resource
- Mold: A Panel Discussion
- Lead Testing in School Drinking Water
- School Integrated Pest Management (an Emphasis on Bed Bugs)
- Integrated Pest Management- General Overview;
- Intersection of Facilities Management & IPM
- Management of Chemicals
  - Storage procedures, training of staff
- Green Cleaning
  - Cleaning vs disinfecting
- Climate Action
- Other as requested

Conferences and Information Tables

- Hold a statewide conference each year on IAQ and/or Climate Action
  - Full-day
  - Up to 250 attendees
  - Offer continuing education credits
  - Offer stipends to travel, cover substitutes, etc.
- Attend partner conferences around the state to host information tables and network with school staff
  - We have a table here today with all of our infographics

IAQ Monitoring Tool

- Facilities managers or other qualified school staff will be trained to use a SEHP-developed IAQ monitoring tool
- A composite score of ventilation rate, carbon dioxide concentration, temperature, and relative humidity
- We will provide all training on how to use the equipment, where to place it, technical assistance with interpreting the results, and guidance on how to improve or remediate any IAQ concerns that are found
- Schools would be encouraged to invest in IAQ improvements and create an IAQ management plan
- 85 disadvantaged schools that receive training will be able to keep the equipment necessary to sustain the program in their district

The School Environmental Health Team

- Michele Herdt, PhD, MPH
- Amanda St. Louis, MSPH
- Alicia Lee, MPH
- Todd Crawford
- DJ Gilmore, MPH
- Emma Heubel, MPH
- Tomi Mile
- Joelle Burnham, MS
- Jessica Marble
- Deidre Reid, MS
- Erin Gibson, MPH
- Kathryn Connell, MPH
- Christina Bridge, MSPH

Contact information

- Phone: 518-402-7800
- Email: School.Environmental.Health@health.ny.gov
- School Environmental Health Program Website: https://www.health.ny.gov/SchoolEnviroHealth

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