

Clean *Classrooms* for Carolina Kids



North Carolina State Board of Education Meeting

Raleigh, NC
April 5, 2023

Ed Norman, MPH

Program Manager, Environmental Health Section
Contract Manager, NC Division of Public Health

Jennifer Hoponick Redmon, MSES, MPA, CHMM,

Director, Environmental Health and Water Quality
Clean Classrooms for Carolina Kids Program Director, **RTI International**

delivering the promise of science
for global good



NCDHHS



NCDHHS

delivering the promise of science
for global good



Clean Water For Carolina Kids™

NC DHHS partners with RTI International, an independent nonprofit research institute, for the Clean Water for Carolina Kids program to identify and eliminate exposure to lead in water at licensed child care facilities across NC.

This work is being expanded to the Clean Classrooms for Carolina Kids program to identify and restrict or mitigate exposure to lead in water, lead-based paint, and asbestos hazards at public schools and child care facilities across NC.



Recent NC Rules Related to Lead and Asbestos at School Facilities

[\[15A NCAC 18A .2816\]](#)

“LEAD POISONING HAZARDS IN CHILD CARE CENTERS”

WHO: Licensed NC Child Care Facilities

WHEN: 10/1/2019

WHAT

- Test all drinking/ food prep taps every 3 years
- Required mitigation at 10 parts per billion hazard level (lowered in 2021)

HOW: Program funded by an EPA grant, managed by NCDHHS, and developed/ executed by RTI

[\[NC 10A NCAC 41C.1001-1007\]](#)

“LEAD AND ASBESTOS INSPECTION, TESTING, ABATEMENT, AND REMEDIATION IN NORTH CAROLINA PUBLIC SCHOOLS AND LICENSED CHILD CARE FACILITIES”


WHO: ~3,100 public schools and 5,700 licensed child care facilities

WHEN: Lead and Asbestos Testing Rule (4/1/23 effective date)

WHAT

- Water lead testing/mitigation (drinking/food prep taps)
- Assess lead-based paint and asbestos (LBPA) hazards
- Funding available to reimburse LBPA mitigation

HOW: ARPA Funding (2023-2026); Modeled after the Clean Water for Carolina Kids Program; managed by NCDHHS, executed by RTI



Clean
Classroom for
Carolina Kids
Objective

To identify and eliminate
exposure to lead and
asbestos hazards where
North Carolina children
learn and play

The Online Enrollment Process

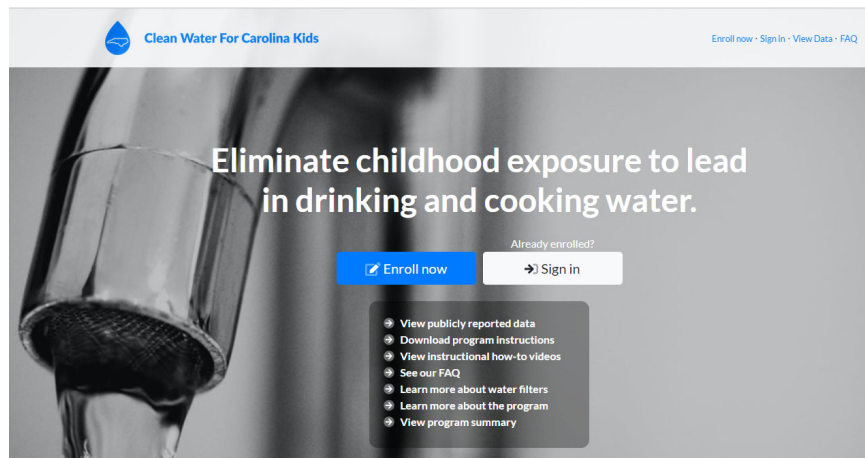
1) Join pre-enrollment webinar to learn:

How to enroll

How to sample

How to ship samples

2) Enroll online with your pin and fill out the survey:



Enrollment Survey



Building Information
✔ Completed



Sample Collection
✔ Completed



Drinking Water Supply
✔ Completed



Student Demographics
✔ Completed



Water Filters
✔ Completed



Finalize
In Progress

<https://www.cleanwaterforcarolinakids.org>

Enrollment Prioritization

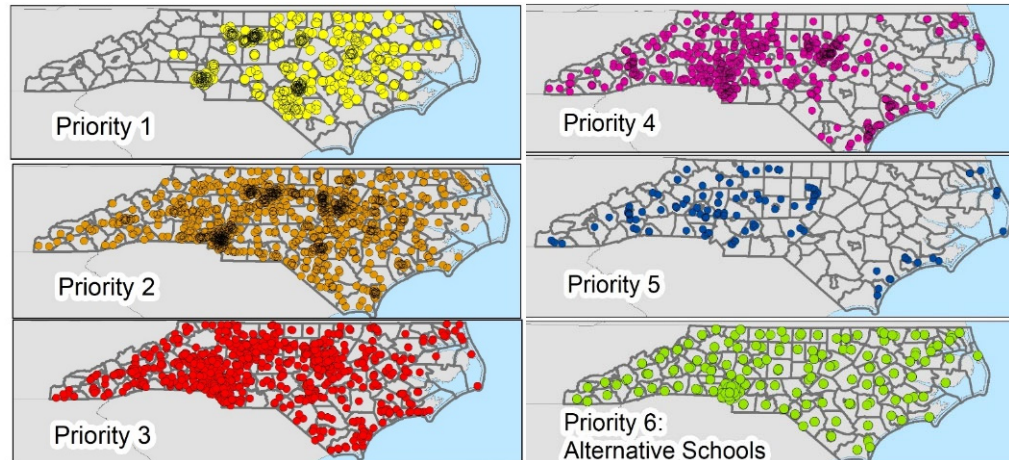
Priority metrics

- Elementary school
- >50% free and reduced lunch
- >50% non-white
- Building built prior to 1988

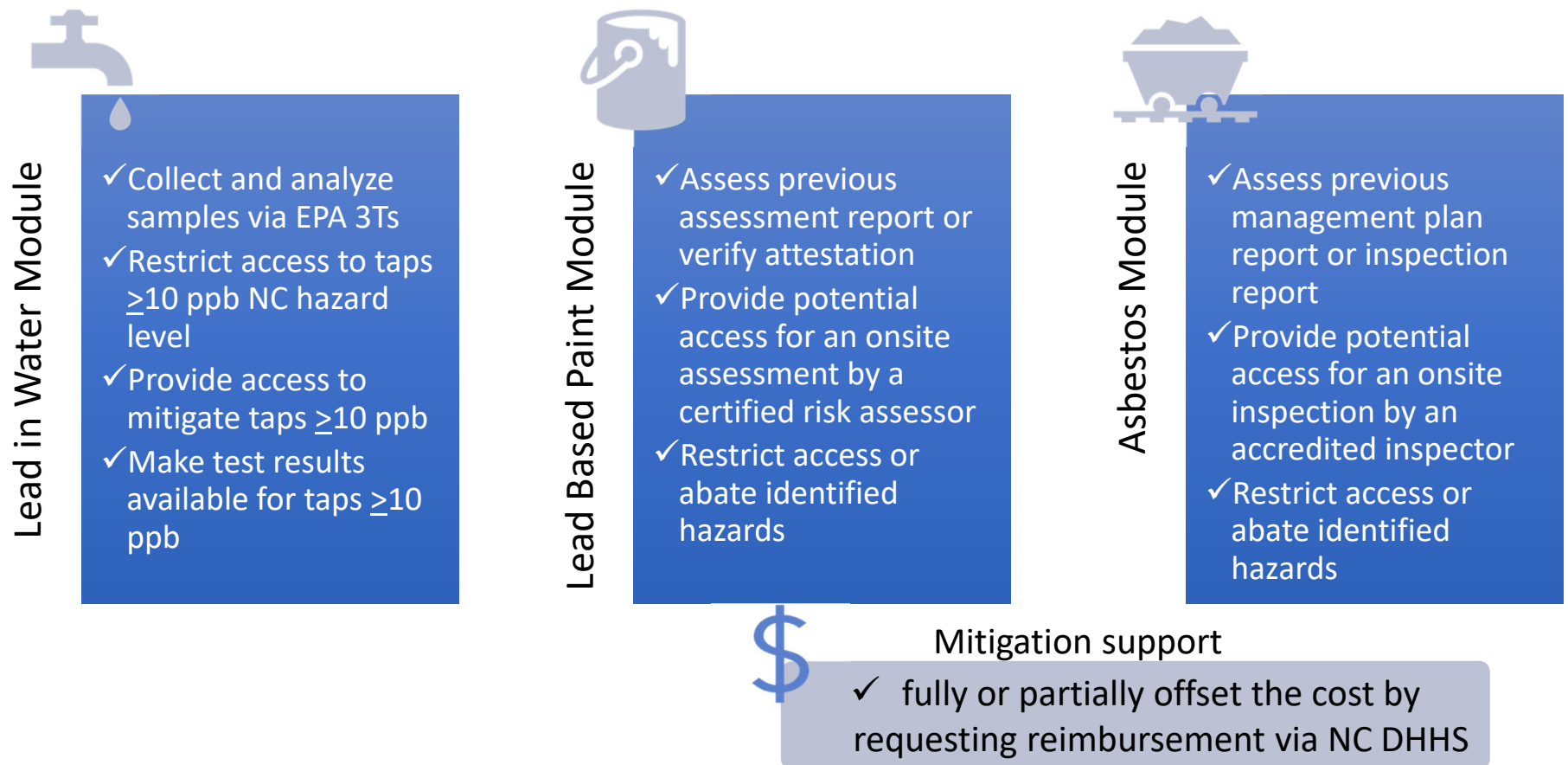
Project Phase	Priority category	Number of schools included
1a	1 (Highest priority)	30
1b		290
2	2	992
3	3	884
4	4	460
5	5	112
6	6 (Lowest priority)	284
	Total (current facilities)	3052

Priority

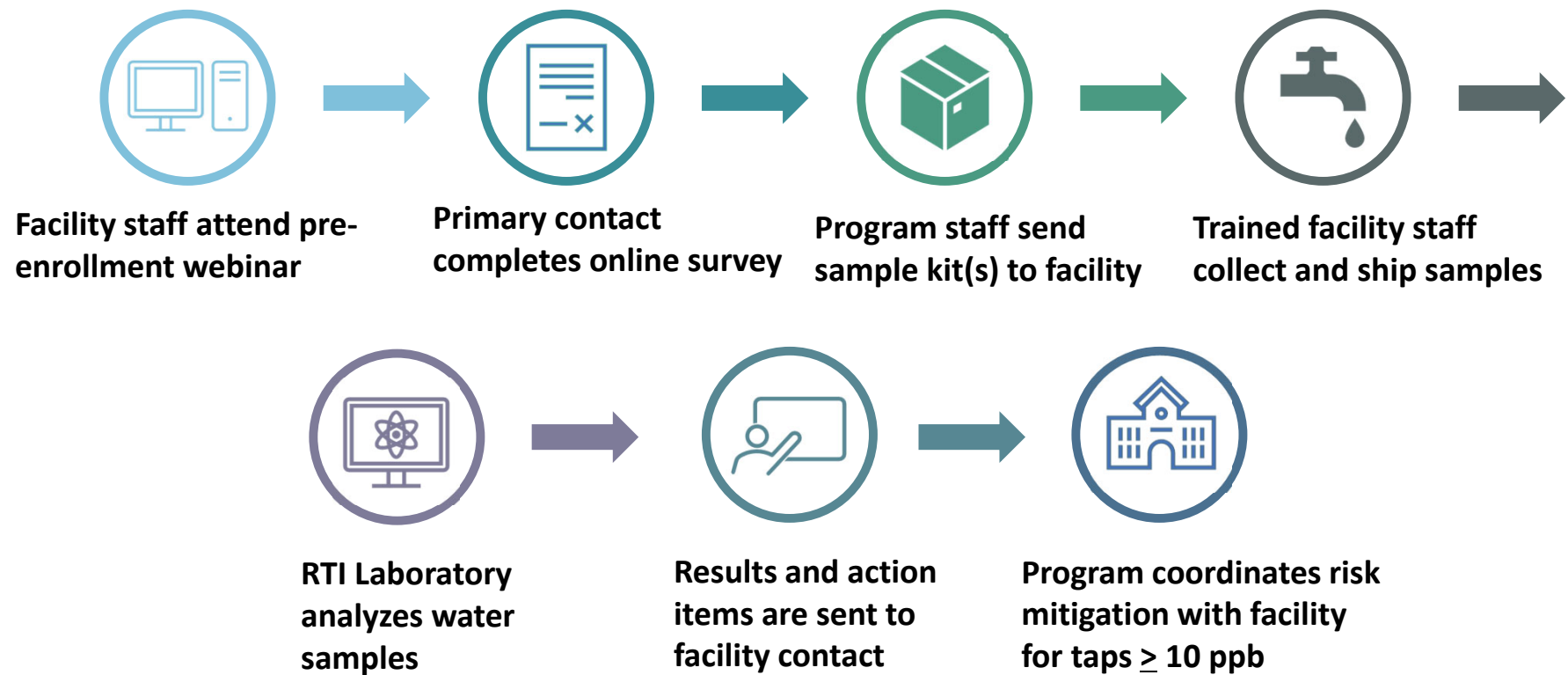
- 1
- 2
- 3
- 4
- 5



Facility Participation Requirements



Overview of Lead in Water Participation



Water Mitigation (for taps ≥ 10 ppb)



Tap Discontinued
with signage/tape
Followup testing
for taps ≥ 150 ppb

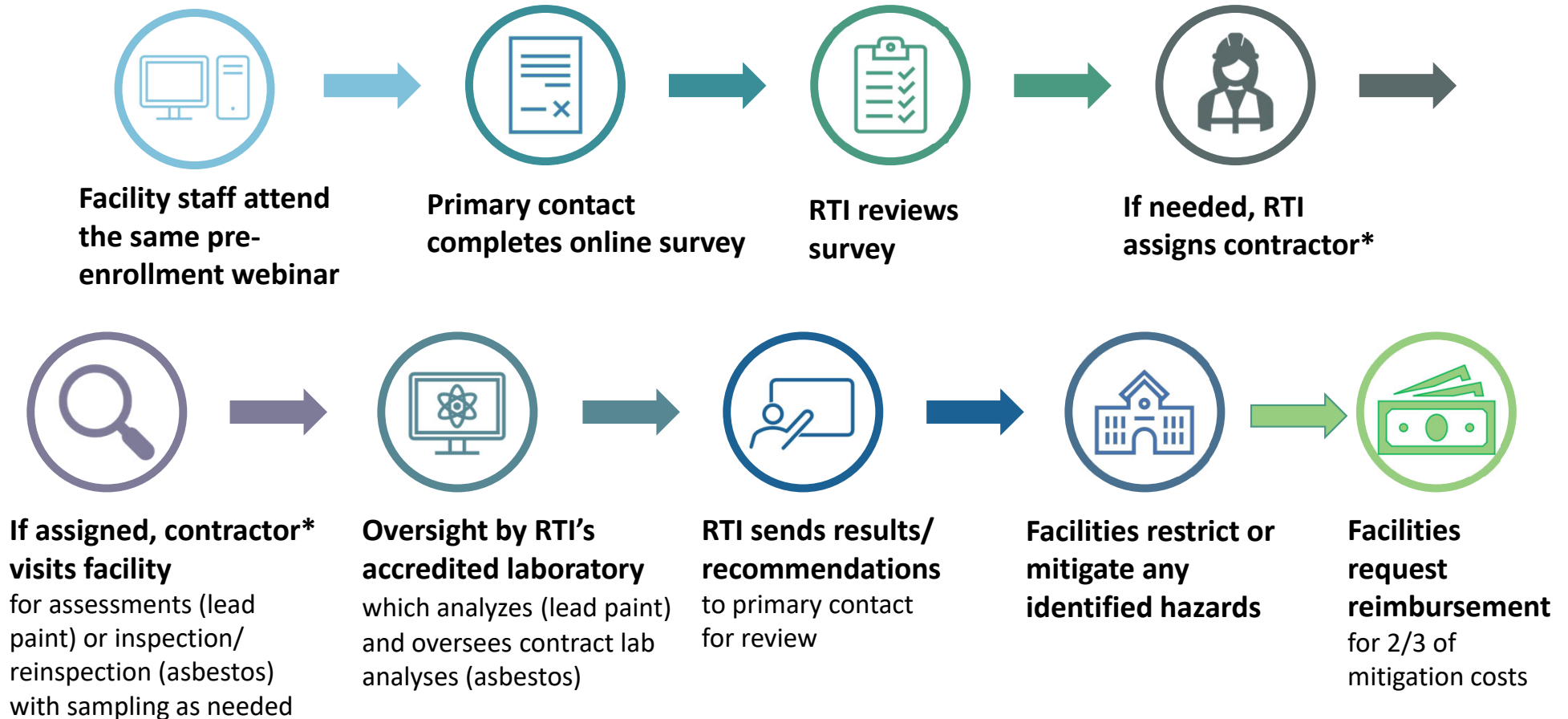


Faucet fixture
replacement



Water filter certified
to remove lead installed
on critical taps for “double
barrier” approach

Overview of Lead-Based Paint and Asbestos Participation



**a certified lead-based paint risk assessor and/or accredited asbestos inspector*

Estimated Onsite Visits

For Lead-Based Paint and Asbestos, Based on Building Age

Building Age	Schools	Lead Paint Risk Assessments %	Centers	Lead Paint Risk Assessments %
Pre-1979	1166	54%	1026	33%
Post-1979	1001	46%	2085	67%

Approximately 54% of schools and 33% of centers

Asbestos	Schools	Asbestos Reinspection%	Centers	Asbestos Inspection %
Pre-1989	1276	59%	1377	44%
Post-1989	891	41%	1734	56%

Approximately 59% of schools and 44% of centers

Note that for water samples, onsite visits will only occur to perform mitigation of water outlets with ≥ 10 parts per billion lead, along with post-mitigation sampling

Data based on facilities that reported year built in DPI facility needs assessment

Results Reporting

Continuously updated in real time and supports transparency throughout the process

Clean Water for Carolina Kids akondash@rti.org

North Carolina Child Care Centers

View lead sampling data for North Carolina child care centers

[Search by Name or Address](#)

View child care center by county

Select a county...

Center Name Status

Select a county using the map or the dropdown to view child care center data



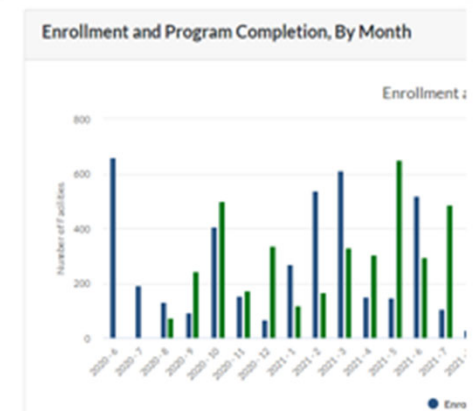
Program Summary: Real-time aggregate results of enrolled/completed facilities

Public Mapper: Type address, name, or look by county to see **results by facility and tap** along with risk mitigation actions

<https://www.cleanwaterforcarolinakids.org/data>



<https://www.cleanwaterforcarolinakids.org/programsummary>



Program Participation

- **Free testing and inspections** for: lead in drinking and food prep water, lead-based paint, and asbestos
- **Free water mitigation**
- **Meets all rule requirements**
- **Cost reimbursement** for up to 2/3 of all lead-based paint and asbestos mitigation/abatement

Facilities that choose to not participate:

- *Still need to meet rule requirements* for testing, reporting, and mitigation
- *Limited mitigation reimbursement*, if funds are available
- *Facilities data and documentation* will not be loaded onto the public mapper



Clean Classrooms for Carolina Kids Program Key Staff

State



Ed Norman
Contract Manager
Program Manager, Health Hazards
Control Unit
North Carolina Department of
Health and Human Services



Melanie Napier, MSPH, PhD
Deputy Contact Manager
Public Health Epidemiologist, Children's
Environmental Health Unit
North Carolina Department of Health
and Human Services

Jeff Dellinger
Industrial Hygiene Consultant Specialist,
Health Hazards Control Unit
North Carolina Department of Health and
Human Services

Allison Jenkins
Industrial Hygiene Consultant Specialist,
Health Hazards Control Unit
North Carolina Department of Health and
Human Services

RTI



Jennifer Hoponick Redmon, MSES, MPA, CHMM
Program Director, Clean Water/
Classrooms for Carolina Kids
Director, Environmental Health and Water Quality



Lisa C. Greene, MS
Co-Program Director, Lead-Based
Paint and Asbestos
Director, Microanalytical Sciences



Keith Levine, PhD
Senior Director, Center
for Analytical Sciences



Joseph Johnson
Lead Software Engineer
Manager, Environmental Engineering
Applications Developer



Crystal Lee Pow Jackson, PhD
Program Coordinator
Research Environmental Scientist



AJ Kondash, PhD, MEM
Program Manager, Lead in Drinking
Water
Research Environmental Scientist



Andrea McWilliams
Laboratory Quality
Assurance Officer
Research Chemist



Kelly Hoffman, MSPH
Program Manager, Lead-Based
Paint and Asbestos
Research Environmental Scientist



John Albritton
Program Manager, Lead-Based
Paint and Asbestos
Research Chemist



Andrew Francis
Lead Software Engineer
Senior Software Engineer



Laurie Stella
Administrative/ Logistic Support
Supervisor,
Administrative Support



Erica Wood, MSPH
Training Coordinator
Research Environmental Scientist



Sarah Colley, MSPH
Outreach & Communication Coordinator
Research Environmental Scientist



Sara Harrison
Laboratory Manager –
Airborne Asbestos
Supervisor, Microscopy



J. Todd Ennis
Laboratory Manager – Bulk
Asbestos
Research Geologist



Frank Weber
Laboratory Manager
Manager, Trace Inorganics



Eric Poltras
Laboratory Manager –
Lead-Based Paint
Research Chemist



Judd Larson
Mitigation Specialist – Lead in
Drinking Water
Research Environmental Scientist



Riley E. Mulhern, PhD
Mitigation Specialist
Research Environmental
Engineer



Madison Lee, MPH
Technical Support Staff
Environmental Scientist



Aaryn White
Technical Support Staff
Project Management Specialist



Anna Gold
Technical Support Staff
Environmental Scientist



Christa Bethelmy
Technical Support Staff
Project Management Specialist



Cindy Salmons
Quality Assurance Officer
Research Chemist



Appreciation

- NC DPH, including Larry Michael, Susan Kansagra, Virginia Niehaus, Mark Benton, Kody Kinsley, and regional environmental health specialists
- County health officers, DCDEE, and DPI
- Child care and school staff
- Nonprofit associations such as NC Child
- Duke Environmental Law and Policy Clinic
- Others helping to make a difference to eliminate lead and asbestos hazards where children learn and play across NC!



Thank you for listening!

Questions & Comments?

Contact us at
ed.norman@dhhs.nc.gov,
jredmon@arti.org

Clean Classrooms for Carolina Kids: An Expansion of the Clean Water for Carolina Kids Program

Recently allocated federal funds are expanding the work of the North Carolina Department of Health and Human Services Childhood Lead Poisoning Prevention and Asbestos and Lead-Based Paint programs. Partnered with RTI International, the objective of the work is to identify lead and asbestos hazards and provide abatement funding for child care facilities and public schools across North Carolina from Spring 2023 through 2026, with final rules governing the program in effect April 1, 2023. The program will be modeled after the Clean Water for Carolina Kids program that previously tested all child care centers for lead in water across NC: public schools will be tested for lead in water used for drinking and food preparation using a participatory science approach that includes a webinar, online enrollment and reporting, and mail-out test kits. RTI will also coordinate water mitigation for facilities with lead in water above the state action level of 10 parts per billion. Additionally, the program will expand “into the classroom” by assessing lead-based paint and asbestos hazards at facilities and schools, with optional mitigation reimbursement funding. Logistically, water sample collection will be completed before students use water in the school building for 8 hours on a given morning or on a weekend. For lead-based paint and asbestos, a records review will be completed first though it is expected that more than half of all facilities will require an onsite inspection for lead-based paint and asbestos hazards based on building age. Onsite visits by contractors for asbestos and lead-based paint inspection can occur during school operations, but the program will work with facilities to find an ideal time. If lead-based paint or asbestos hazards are identified by the program, facilities will be notified and they must choose to mitigate or restrict the hazard-(s). Facilities that decide to perform lead-based paint or asbestos mitigation will choose their own contractor, schedule the work during planned school breaks or weekends as preferred, and keep receipts for cost reimbursement, with a 1/3 local cost match required for schools only (for lead-based paint and asbestos).

Verbal Speaker Bios

Ed Norman is a Program Manager of the Childhood Lead Poisoning Prevention Program (CLPPP) and the Health Hazards Control Unit (HHCU) in the Environmental Health Section of the North Carolina Department of Health and Human Services. He is a longstanding champion of children's health in North Carolina. For the work to be discussed today, Ed and his team is overseeing contract administration, aid to county, and reimbursement of asbestos and lead-based paint hazard mitigation.

Jennifer Hoponick Redmon is the director of the Environmental Health and Water Quality program at the nonprofit research institute RTI International. At RTI, Ms. Redmon ideates, develops, and leads multi-disciplinary and community-engaged research projects including Clean Water for Carolina Kids, which is being expanded into the Clean Classrooms for Carolina Kids program in partnership with DHHS and is the topic of discussion today.

Full Speaker Bios

Ed Norman is a Program Manager in the Environmental Health Section of the North Carolina Department of Health and Human Services. In this role, Ed manages several programs for the state including the Childhood Lead Poisoning Prevention Program (CLPPP) and the Health Hazards Control Unit (HHCU) which oversees asbestos and lead-based paint hazard management. Ed has worked in childhood lead poisoning prevention for the past 33 years. Ed earned a Master's of Public Health degree from the University of Michigan at Ann Arbor. He is a champion of children's health in North Carolina and an integral part of efforts to protect children's health across the state. He is the recipient of the federal Water Infrastructure Improvements for the Nation (WIIN) Act grant funding that made the Clean Water for Carolina Kids program free for child care centers.

Jennifer Hoponick Redmon is the director of the Environmental Health and Water Quality program at RTI International, a nonprofit research institute based in North Carolina. Her educational background integrates the scientific and policy areas of environmental chemistry, toxicology, risk assessment, environmental policy, and natural resource management, with dual Master's degrees in Environmental Science and Public Administration from Indiana University. She has received numerous awards recognizing her achievements, including a 40 Under 40 Leadership Award from the Triangle Business Journal as one of the "best and brightest business and community leaders. Her 19 years of experience includes a blend of practical field and laboratory expertise, cross-cutting technical knowledge, a love of collaboration, excellent communication skills, and an unwavering commitment to improving public health and the environment. She is known for her ability to synthesize complex environmental health problems into practical solutions that improve the natural and built environment. At RTI, Ms. Redmon ideates, develops, and leads multi-disciplinary and community-engaged research projects, including the Clean Water for Carolina Kids program.