



153 Regent Street, Ste. 1050, Saratoga Springs, NY 12866

www.HealthySchools.org

To: Members of the Joint Budget Committee/ P-12 School Buildings

Fm: Healthy Schools Network, Claire L. Barnett, MBA, Executive Director

Contact: cbarnett@healthyschools.org, 518-462-0632 or 202-543-7555

Re: Testimony- School Facility Readiness for Extreme Heat and Related Weather Events

Date: January 29, 2025

Thank you for the opportunity to testify. Our comments focus on the importance of preparing NYS public school facilities for extreme weather events and improving indoor air quality to reduce the spread of colds, flu, and other infectious diseases. Preventive measures for facilities now will reduce future disaster recovery costs, reduce children's health care costs, and improve facility conditions for children to learn.

- 1- We urge the Legislature to direct/urge the Board of Regents and State Education Department (SED) to **create a School Facility Climate and Health Plan**, beginning with a robust response to the fully emerged Extreme Heat challenge and Extreme Heat in Schools bill. NY can do a better job ensuring children's health and learning by adopting and disseminating policies and procedures that protect the most numerous and vulnerable of all the school occupants – children and youth.
- 2- We commend New York State United Teachers, Heat bill lead sponsors Assemblyman Eachus and Senator Skoufis, and the Legislature for passing the Extreme Heat bill which Governor Hochul signed in December, and which we supported along with our partners, the NY League of Conservation Voters and Clean + Healthy NY.

As members of the Legislature consider the pending Chapter Amendment, we urge you to **direct the Department of Health to fast-track its expert guidance into the P-12 field on children's special vulnerability to high heat** and the impacts of high heat on them, including the impacts on those with special medical conditions. Schools must have accessible and consistent state guidance regarding their most vulnerable occupants – children and

youth before, not after, they design their own local plans. Protecting teachers and other personnel is one step already taken; protecting children is another step.

My name is Claire Barnett, and I am the Executive Director of Healthy Schools Network, a national not for profit and the leading voice for children's environmental health in schools. We were founded here in Albany, NY, 30 years ago this month, and have since been honored to work with the Legislature and state agencies over many years to enact child-protective health reforms for schools, as well as work with national partners federally and across the states. The NYS policy work leads the nation and has won federal authorizations and funds for US EPA and for Education. I have served on many committees and work groups, including NY SED SAVE, the NYS DOH Clean and Green Schools, NYSERDA's Climate and the Buildings Sector Committee, US EPA's Children's Health Protection Advisory Committee, and I am an appointed member of the federal Health and Human Services Advisory Committee on Children and Disasters.

In 2024, my office hosted a facilitated national summit on *AIR JUST AIR: Clean Air in Schools*; focused first on the use of sensors to measure IAQ; in September, I attended the White House Extreme Heat Summit and then presented at the 3rd annual conference of the National Integrated Heat Health Information System (NIHHIS, heat.gov). In October, I presented an overview of school environments and climate for the US EPA, to celebrate Child Health Month. Additionally, my office co-hosted an Albany Roundtable with Congressman Paul Tonko focused on indoor air quality and heat in schools. The event featured a congressional district level analysis of schools in heat vulnerability zones, asthma, and indoor air quality, utilizing information from SED Building Condition Surveys, school report cards, DOH SPARC, and NYSERDA. This month, I presented on indoor air and heat to the Washington, DC State Board of Education.

For more information about Healthy Schools Network, please visit <https://healthyschools.org/>

About Children and Heat

Children are the most numerous occupants of schools, and the reason PK-12 schools even exist. Children outnumber personnel by 8 or 9 to one and are more vulnerable to extreme heat and other environmental health risks than the adults around them. They are also less able to protect themselves, identify risks, or move out of harm's way.

High heat in schools is documented to reduce the ability to absorb new academic lessons and to lower test scores significantly, as well as exacerbate asthma and worsen other health conditions. It is also the third leading cause of death of student athletes. There are 2.5 million students enrolled in NYS public schools; over 500,000 students have special education services and 12% of all students ages 17 and younger have asthma.

Accessible high-quality information about the impact on heat on children is needed for schools, school personnel, parents, and communities to create practical and effective local policies and procedures. Children simply have greater risks and cannot protect themselves.

- Children are at risk of overheating because of their small size, and they have less ability to regulate their core body temperature.
- Children need help to cool down — and permission or direction to move to a cooler space, taking off layers of clothing, or getting a drink,
- Children cannot leave a classroom at will or easily get to a cool place, such as a cooling center, mall, or other air-conditioned space,
- Children with health conditions may make them more likely to get heat illness,
- And, because heat related health problems in children are increasing because hot weather and extreme heat events are becoming more common.

The NYS DOH resources include a chart of symptoms that might become the basis for a poster in key locations in every school.

NYS DOH

Heat-related illnesses occur when the body is unable to cool itself. The most common heat-related illnesses are heat stroke (sun stroke), heat exhaustion, heat cramps and heat rash. Here are the symptoms and first-aid responses.

Illness	Symptoms	What to Do
<p>Heat stroke (sun stroke)</p> <p>THIS IS AN EMERGENCY - ACT FAST!</p>	<ul style="list-style-type: none"> • Hot, dry, red skin • Rapid pulse • High body temperature $\geq 105^{\circ}$ • Loss of alertness • Confusion • Unconsciousness or coma • Rapid and shallow breathing 	<ul style="list-style-type: none"> • Call 911 immediately. • Cool the person quickly. • Bring to a cool place and use a cool bath or sponges, fans and AC. OR • Wrap ice packs in cloth and place on neck, wrists, ankles and armpits. OR • Remove clothing and wrap the person in cool, wet sheets.

Heat exhaustion	<ul style="list-style-type: none"> • Heavy sweating • Fainting • Vomiting • Cold, pale, clammy skin • Dizziness • Headache • Nausea • Weakness 	<ul style="list-style-type: none"> • Heat exhaustion can quickly lead to heat stroke so if symptoms worsen or don't improve get medical help. • Move the person to a cool place. • Loosen clothes and apply cool, wet cloths to the neck, face and arms. • Have the person sip water slowly. Provide half a glass of water every 15 minutes up to about 1 quart. Stop giving water if vomiting occurs.
Heat cramps	<ul style="list-style-type: none"> • Muscle cramps in the abdominal area or extremities • Heavy sweating • Mild nausea 	<ul style="list-style-type: none"> • Move the person to a cool place. • Apply firm pressure to the cramping muscle. • Gently stretch the cramped muscle and hold it for 20 seconds followed by gentle massage. • Have the person drink some cool water.
Heat rash	<ul style="list-style-type: none"> • Skin irritation that looks like a red cluster of pimples or small blisters 	<ul style="list-style-type: none"> • Move the person to a cool place. • Keep the affected area dry. • Have the person use talcum powder to increase comfort.

[California Department of Public Health guidance for heat and schools.](#)

[The Academy of Pediatrics Guidance on Disasters and Extreme Heat.](#)

Heat extremes can produce several health effects in children, the most common of which is dehydration. Heat extremes can also lead to heat exhaustion, heat cramps and heat stroke.

Children can develop faintness, extreme tiredness and headache, and even fever and intense thirst. Other signs of heat exhaustion include nausea, vomiting, hyperventilation and skin numbness or tingling.

Pediatricians can advise parents to take steps to prepare in advance; know what to do to reduce the effects of extreme heat:

- Make plans for home cooling or alternate shelters in the event of a heat wave.
- Never leave children in unattended vehicles not even for a minute.
- Ensure adequate access to water and periods of rest.

When exposed to the consequences of extreme temperatures, children may become fearful, feel hopeless or develop a range of stress-related symptoms. For example, it may be upsetting for them to see dead birds or other wildlife, if there is a drought or wildfire. Children may worry that they, too, will die.

Clinicians can share strategies with adults to [help children cope and adjust after a disaster](#). Parents can also reassure children that many people are working to resolve the situation.

School Facilities: Heat and Infection Prevention and Control

The Regents and SED have an excellent resource to start a Climate and Health Plan for public school facilities. The NYS Extreme Heat Plan adopted in 2024 contains: a) recommendations for worker health and safety that could be adapted for student health and safety protections, and b) recommendations for educational facilities. And, since a warmer climate leads to more polluted outdoor air, the Regents/SED Climate and Health Plan must include enhanced Indoor Air and ventilation guidance and standards, consistent with EPA and CDC guidance published last year to reduce the spread of infections in schools. A warmer climate is increasing air pollutants and leading to increases in novel infective diseases.

Specifically, while “stay home” is good advice to someone who is sick, the densely occupied congregate facilities used by children and youth need to take more care. We urge that SED/Center for School Health, DOH, and NYSERDA, advised by pediatric environmental health experts, use the federal guidance to scale-up and create a model Infection Prevention and Control Plan that local districts and schools can adopt, focused on clean air, clean water, and cleaner facilities that are more resilient to extreme weather events.

Sources of Information

The New York Health Department and NYSEFDA are to be credited for their efforts to ensure that goals for the state’s educational facilities are included in the NYS Extreme Heat Plan. The goals below are a starting point for a School Facility Climate and Health Plan.

NYS Extreme Heat Plan: Advance Adaptation in Educational, Institutional, and Congregate Settings

- | | |
|-------|---|
| T3.12 | Fund facility improvements, thermal resilience, and decarbonization at educational institutions. |
| T3.13 | Support the development and implementation of facility-specific heat response plans and reporting for certain educational facilities. |
| T3.14 | Incorporate thermal resilience into State planning standards for educational facilities. |
| T3.15 | Identify and implement best practices to promote student, faculty, and staff safety at educational institutions, with a focus on protecting student athletes and preventing pediatric heatstroke. |
| T3.16 | Support facility-specific heat response plans and develop and refine procedures, protocols, planning, and staff training on extreme heat in institutional and congregate settings. |
| T3.17 | Assess cooling in congregate settings. |

SED Asset and a Case Study Illustrate High Need

A major asset for the Board of Regents and SED is the deep data SED has archived on school facilities. In partnership with Rensselaer Polytechnic Institute and its Center for Architecture,

Sustainability, and Ecology (RPI/CASE), Healthy Schools Network is exploring the intersection of children's health, facility operating systems, and climate. For a Roundtable hosted by NY Congressman Paul Tonko in his district last October, we produced CD level data.

CASE staff and student interns accessed several NYS datasets on children, climate, and school facilities. A sample of 1,426 public schools statewide (not including New York City), showed over 300 are in disadvantaged communities (DAC) that face disproportionate burdens from asthma and climate change.

Zeroing in on schools in the CD, data show:

- o 16% of public schools had absenteeism rates over 45% annually*
- o 31% of public schools are in areas above the median NYS Heat Vulnerability Index, and*
- o 42% of the public schools had ventilation systems with less than five years of remaining life.*

An earlier SED data set indicated that only about half of all NYS public schools outside of NYC have mechanical air handling systems.

Facility Modifications/Cost

A rough guesstimate of cooling down all NYS public school facilities could run to \$20 Billion, a daunting number. That means a Regents/SED School Facility Climate and Health Plan should also set priorities.

An excellent technical resource is the Collaborative for High Performance Schools (CHPS.net) – which underscores the low-cost opportunities such as energy efficient, low carbon passive cooling measures for school buildings, e.g., insulation, air sealing, cool roofs/surfaces, improved windows. It also suggests overheating risk assessments and design with future weather files for life cycle analyses and adaptation planning. This holistic approach has been considered best practice for climate adapted, resilient design for extreme heat (see links below for resources, examples). See the [Collaborative for High Performance Schools](#) certification in 2019/20 for CA and the US (Sec. II C7.1 DESIGN FOR ADAPTATION & RESILIENCE).

Cost will be an issue as last week's announcement from NYSERDA shows: 20 projects, \$100M.

The New York State Energy Research and Development Authority (NYSERDA) is pleased to share that the \$100 million of the \$4.2Bn [Clean Water, Clean Air, and Green Jobs Environmental Bond Act \(Environmental Bond Act\)](#) funding added to Round Two of the Clean Green Schools Initiative in January 2024 has been committed to 20 projects across seven Regional Economic Development Councils. NYSERDA is currently negotiating contracts with the 20 awardees, with projects located in New

York City (9), Capital Region (2), Mid-Hudson (3), Southern Tier (2), Western New York (2), Mohawk Valley (1) and Central New York (1).

Approximately \$30 million is supporting projects located in New York City and \$70 million is supporting projects located in schools outside of New York City. The projects, 16 of which are located in [disadvantaged communities](#), will lower greenhouse gas emissions, reduce reliance on fossil fuels and improve indoor air quality by installing ground source heat pumps, air source heat pumps and electric kitchen equipment. In addition, these investments will also protect against extreme heat, as 11 of the projects are adding efficient cooling systems to their school buildings which serve vulnerable populations.

Thank you again for the opportunity to testify. Preventive measures for facilities designed and implemented soon will reduce future disaster recovery costs, reduce children's health care costs, and improve facility conditions for children to learn.

If you have additional questions, do not hesitate to call, or email.