

# MOVING BEYOND IMPLICATIONS: RESEARCH INTO POLICY



Hosted by:

**State Representative Jaime Foster, PhD, RD**

Proudly serving East Windsor, Ellington, Vernon

**TUESDAY, JANUARY 9TH IN HARTFORD, CT**

Legislative Office Building - Hearing Rooms 2C & 2D

Most policy makers aim to implement evidence-based policy. They want to create and pass bills that have the exact desired impact and are the state of the science given the best evidence of the time. Unfortunately, most academic research is behind a paywall and inaccessible to policy makers.

Most scientists and scholars have written a sentence in a peer reviewed publication that starts something along the lines of, "implications for policy include..." Unfortunately, the only people who often read those implications are other scholars. This conference is designed to build a bridge between these two ivory towers.

Thank you for being here today!

In Partnership with:

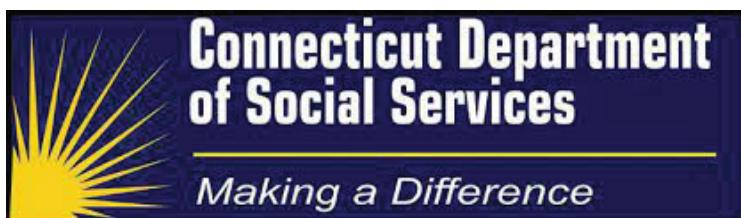
**Scholars Strategy Network & The Institute for Collaboration on Health, Intervention, and Policy (InCHIP) at UConn**



**THANK  
YOU FOR  
JOINING US  
TODAY!**

# A HUGE THANK-YOU TO ALL OUR PARTNERS FOR MAKING THIS HAPPEN!

**Thank you to all State Leaders, Legislators, Academics, Students & Connecticut agencies for participating today!**



**DDS**

**LuAnn's**



**DEPARTMENT  
OF AGRICULTURE**



# AGENDA

**Lunch, Invited Speakers, & Welcome by Rep. Foster.....12:00 - 1:00pm**  
**(2nd floor Atrium)**

- State Representative Jaime Foster PhD, RD & Kerri M. Raissian, PH. D
- Lieutenant Governor Susan Bysiewicz
- Jonathan Dach – Chief of Staff – Office of the Governor
- House Majority Leader Jason Rojas
- House Minority Leader Vincent Candelora

**Presentation Tracks-Session 1.....1:00 - 2:15pm**  
**(2nd floor hearing rooms)**

Track A- Public Health & Human Services **(Room 2D)**

Track B- Judiciary & Public Safety & Security **(Room 2C)**

**Break for Coffee and Networking.....2:15 – 2:45pm**  
**(2nd floor Atrium)**

**Presentation Tracks-Session 2.....2:45 - 4:00pm**  
**(2nd floor hearing rooms)**

Track C-Energy & Technology, and Environment **(Room 2D)**

Track D- Children's & Education **(Room 2C)**

**Happy Hour, Snacks, and Networking.....4:00 – 6:00pm**  
**(1st floor Atrium)**



# COMMITTEE CHAIRS & CO-CHAIRS

## **Public Health**

Co-Chair – State Rep. Cristin McCarthy Vahey

Co-Chair – State Sen. Saud Anwar

## **Human Services**

Co-Chair – State Rep. Jillian Gilchrest

Co-Chair – State Sen. Matthew L. Lesser

## **Judiciary**

Co-Chair – State Rep. Steven J. Stafstrom

Co-Chair – State Sen. Gary A. Winfield

## **Public Safety & Security**

Chair – State Rep. Patrick S. Boyd

Chair – State Sen. Herron Gaston

## **Energy & Technology**

Co-Chair – State Rep. Jonathan Steinberg

Co-Chair – State Sen. Norman Needleman

## **Environment**

Co-Chair – State Rep. Joe Gresko

Co-Chair – State Sen. Rick Lopes

## **Children**

Co-Chair – State Rep. Liz Linehan

Co-Chair – State Sen. Ceci Maher

## **Education**

Co-Chair – State Rep. Jeff Currey

Co-Chair – State Sen. Douglas McCrory

# **SCHOLAR PRESENTATIONS**

## **(TRACK A & B)**

### **Track A - Public Health & Human Services**

#### ***Food Insecurity and the Child Tax Credit***

Caitlin Caspi (UConn)

Maria Gombi-Vaca (UConn)

Curtis Jalen Antrum (UConn)

#### ***Gun Talk: Identifying the Facilitators and Barriers to Provider-Initiated Conversations Regarding Securing Firearms***

Damion Grasso (UConn Health)

Jennifer Dineen (UConn)

Kerri Raissian (UConn)

Amanda Hoey (UConn)

Amanda Rae Kahn (UConn School of Medicine)

#### ***Identifying and Mapping Bronchiolitis Clusters in Connecticut***

Alexander Hogan (UConn School of Medicine)

#### ***Saving the Children's Behavioral Health Workforce***

Jason Lang (Child Health and Development Institute)

Aleece Kelly (Child Health and Development Institute)

### **Track B- Judiciary & Public Safety & Security**

#### ***Crime Effects of Opening Overdose Prevention Centers in New York City***

David Mitre-Becerril (UConn)

#### ***Adding Body Size to Connecticut's Civil Rights Law***

Rebecca Puhl (UConn)

#### ***Impact of Medicaid Waivers Following Incarceration***

Benjamin A. Howell (Yale)

#### ***Lifetime History of Violence Exposure and Attitudes and Behaviors Regarding Firearm Safe Storage and Open Carry: A Person-Centered Analysis***

Kerri Raissian (UConn)

Damion Grasso (UConn Health)

Jennifer Dineen (UConn)

# **SCHOLAR PRESENTATIONS (TRACK C & D)**

## **Track C-Energy & Technology, and Environment**

***Non-carbon-based fuels supporting decarbonization of the transportation sector***

George M. Bollas (UConn)

***The Effects of Extreme Rainfall Trends on Existing Water Infrastructure and Design Considerations in Connecticut***

Stergios Emmanouil (UConn)

Emmanouil N. Anagnostou (UConn)

***Public Land for Public Health: Common Solutions to Reduce Risk***

Susan Masino (Trinity College)

## **Track D- Children's & Education**

***Social Emotional Learning: Challenges and Solutions to Supporting Children's Emotion Coping Skills***

Sandra M. Chafoleas (UConn)

Jessica Koslouski (UConn)

***E-cigarette Flavor Restrictions' Effects on Nicotine and Tobacco Product Sales***

Abigail Friedman (Yale)

***Connecticut Students and Teachers Deserve Clean Indoor Air Now***

Jessica P. Hollenbach (UConn School of Medicine)

Marina A. Creed (UConn School of Medicine)

Kristina Wagstrom (UConn)

Misti Levy Zamora (UConn Health)

***Adjusting School Start Times: The Impact on Adolescent Mental Health***

Marney A. White (Yale)

# CONTACT US

## **State Representative Jaime Foster**

jaime.foster@cga.ct.gov | (860) 240-8760

Constituent Engagement Coordinator: Hisham Rushaidat

hisham.rushaidat@cga.ct.gov

## **UCONN INCHIP**

Greidy Miralles - Research Development Assistant

greidy.miralles@uconn.edu | 860 - 486 - 5917

## **Connecticut Scholars Strategy Network**

CT SSN - ctscholarsnetwork@gmail.com

Kerri Raissian - Associate Professor of Public Policy, University of Connecticut

kerri.raissian@uconn.edu

## **Committee Contacts**

**Public Health** - <http://cgalites/ph/>

**Human Services** - <http://cgalites/hs/>

**Judiciary** - <http://cgalites/jud/>

**Public Policy** - <http://cgalites/ps/>

**Energy & Technology** - <http://cgalites/et/>

**Environment** - <http://cgalites/env/>

**Children** - <http://cgalites/kid/>

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## **Catering Restaurants**

### **LuAnn's Bakery & Café**

238 Somers Rd., Ellington CT

(860) 872-8073 | <https://www.luannsbakery.com/>

### **JRego's Gathering Place**

175 West Rd, Ellington, CT 06029

(860) 454-4458 | <https://www.jregosgatheringplace.com/>

# Food Insecurity and the Child Tax Credit

Caitlin Caspi, ScD, Maria Gombi-Vaca, PhD, and Curtis Antrum, MHA

## Food Insecurity is on the Rise among U.S. Households with Children

### Context

- Food insecurity puts people at risk for many poor physical and mental health outcomes.
- Food insecurity stayed stable during much of the COVID-19 pandemic but rose significantly from 2021-2022 among U.S. households with children.
- Many federal supports were offered during the COVID-19 pandemic. These included expansions in food assistance programs like SNAP, as well as other supports like the expanded Child Tax Credit. However, these supports were temporary.
- SNAP benefits were reduced for many households after February 2023, when pandemic-era Emergency Allotments ended.
- As federal relief measures end, states are taking action to support those at risk of food insecurity. For example, many states, including the majority of states in the region, have passed their own expanded Child Tax Credits.

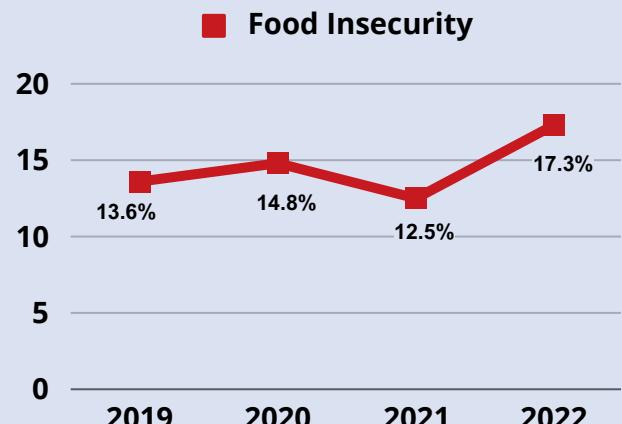


Figure 1. Rates of Food Insecurity Among Households with Children

In 2022, our research team interviewed 40 low-wage working families with children living in two U.S. cities. We asked them how an array of federal economic supports offered during COVID-19 affected them. Sixty percent of participants reported food insecurity. This is what we heard from participants.

**Flexible benefits, like the Child Tax Credit, help people spend according to their needs, while programs like SNAP are more restrictive**

People need things outside of food and rental assistance....

Pampers, wipes, laundry detergent, you know...When we're stressing so much about the biggest things, those are the smaller things that kind of just...I guess get lost in the creases of things.

**Child Tax Credits (CTCs) can lift households out of poverty and reduce food insecurity**

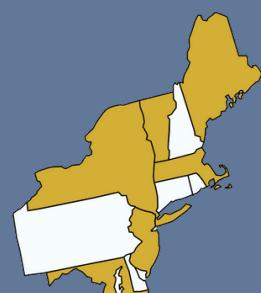
The Child Tax Credit was also a great blessing... Because we [had been] homeless, we had no beds, no nothing, no blankets...So, because of that, we used a lot of our Child Tax Credit money to purchase new things for the house.

Extra food stamps definitely...work when it comes to food....But what about the roof over our heads and the shoes on our feet and the clothes on our back? That costs money, not food stamps.

### Why Tax Credits Help: What We Heard

- Households make spending tradeoffs.** Families facing food insecurity frequently make tradeoffs between food, housing, and other expenses. Benefits like tax credits allow people the flexibility to manage these competing expenses.
- Food assistance benefits like SNAP only go so far.** The specific income and eligibility requirements of SNAP means that not everyone qualifies for assistance. The application and recertification process also pose challenges. Additionally, it does not even cover all food expenses. Benefits like tax credits can help fill these gaps.

Over the last several years the Connecticut General Assembly has tried but failed to pass a permanent Child Tax Credit, making Connecticut one of the only states in the region without this benefit





## The end of pandemic-era benefits poses challenges to households' economic stability

### The End of Benefits: What We Heard

- The discontinuation of multiple benefits is a challenge.** Participants relied on a patchwork of different supports for food, housing, and other expenses throughout the pandemic. However, it was often unclear how long supports would be available for. Changing benefit amounts made it difficult for people to manage their budgets.
- Inflation added to this challenge.** Participants noted that the discontinuation of the pandemic-era benefits was particularly difficult when combined with the rising costs of food and other necessities due to inflation.

*So [I] kind of felt like there should have been a more permanent plan in place to uplift people.*

*They put resources up for a few months in the beginning. But once they started taking all of them away, a lot of people were finding themselves in a lot in trouble.*

*They were holding our hand along the way, and then pushed us down the hill, when they were done helping....And I feel like that was very traumatic for a lot of people. So I feel like there should have been something in place to gradually...transition that process.*

### Procedures for accessing benefits should be simplified

#### Accessing Benefits: What We Heard

- Participants face numerous barriers in accessing benefits.** Participants noted burdensome administrative processes for accessing many benefits. At times, administrative delays and errors led them to miss out on benefits.
- Automatic processes facilitate benefit receipt.** The federal monthly Child Tax Credit was administered automatically and partially in advance to those who had filed taxes in the previous year. This, as well as direct deposit processes, made it easier to access.
- Participants lacked support for navigating policy and program changes during the pandemic.** Participants learned about new benefits haphazardly. There was little systematic support for people to learn about new benefits they might be eligible for.

*I feel like I did not have all the answers. I feel like I really did not have all the information.*

*I think the information... You need to be specific. It needs to be spot on. We don't have time for guessing games when it comes to everyone's livelihood.*

*There was a lot of misinformation being thrown around and you basically had to... do your own research to see what is true and what's not... It was like they were having programs, but weren't telling people that there were programs in place to help.*

### Key Takeaways

- As COVID-19 era supports end, states must consider how they can maintain a safety net for those at risk of food insecurity.
- Flexible benefits like the Child Tax Credit can help those at a high risk of food insecurity fill gaps in their budget.
- Such benefits can have greater reach and impact if they have broad eligibility and are administered through automatic processes.

This research was supported by grant #2835101 from Healthy Eating Research, a national program of the Robert Wood Johnson Foundation, and by the National Institute of Diabetes and Digestive and Kidney Diseases (R01DK118664)

### READ MORE

1. Shafer PR et al. (2022). Association of the Implementation of Child Tax Credit Advance Payments With Food Insufficiency in US Households. *JAMA Netw Open*. Jan 4;5(1):e2143296.
2. Caspi CE et al. (2022). A qualitative analysis of SNAP and minimum wage policies as experienced by workers with lower incomes. *Journal of Hunger and Environmental Nutrition*. 17(4):521-539
3. Food Research and Action Center (2023) <https://frac.org/blog/expanded-child-tax-credit-and-earned-income-tax-credit-reduced-hunger>
4. Institute on Taxation and Economic Policy (2023) <https://itep.org/states-are-boosting-economic-security-with-child-tax-credits-in-2023/>
5. Berkowitz S et al. (2022). The Public Health Case for a Universalist Child Tax Credit. *JAMA Pediatrics*. 176 (9), 843-844.

**Contact Us:**

Kerri Raissian (Director): [kerri.raissian@uconn.edu](mailto:kerri.raissian@uconn.edu)

Jennifer Dineen (Assoc. Director): [jennifer.dineen@uconn.edu](mailto:jennifer.dineen@uconn.edu)

Twitter/X: [@UConn\\_ARMS](https://twitter.com/UConn_ARMS) Website: [arms.chip.uconn.edu](https://arms.chip.uconn.edu)



# UConn Center for

## Advancing Research Methods and Scholarship in Gun Injury Prevention

A Brief prepared by the UConn ARMS Center  
January 2024

### Promoting Secure Firearm Storage Practices Through Promote Physician-Initiated Conversations about Secure Firearm Storage Strategies

Fatal and non-fatal firearm violence remains a significant public health crisis. The impact of firearm injury and ensuing trauma affects families, communities, and the healthcare system at large. [The presence of firearms in homes strongly correlates with both intentional and unintentional firearm violence.](#)

[Secure firearm storage can prevent both intentional and unintentional firearm violence at home.](#) This involves limiting firearm access to unauthorized users through practices like using safety devices (e.g., trigger or cable locks), securing firearms in a gun safe or locked cabinet, keeping ammunition separate, and storing the weapon off-property during times of elevated risk to oneself or others.

#### Quick Facts

- Connecticut issued > 74,000 firearm permits in 2022.
- Connecticut requires all firearms, loaded or unloaded, be locked in a secure container or box when not in use (Conn. Gen. Stat. § 29-37i).
- In Connecticut, medical professionals can seek a court-ordered risk protection investigation for individuals aged 18+ whom they believe, in good faith, pose an imminent risk of firearm-related harm to themselves or others (Conn. Gen. Stat. § 29-38c(b)(1)).
- Medical education, such as anticipatory guidance, can reduce negative outcomes. Injury prevention education has correlated with [fewer home accidents](#), falls, and auto passenger injuries. Patient education in chronic disease management is also linked to fewer hospitalizations.
- [Research shows](#) that secure-storage laws, inclusive of child access prevention laws, are effective at reducing firearm related deaths.

#### Key Takeaways

The findings are based on 54 in-depth interviews with general practice (30), pediatric (13), and obstetrician gynecologists (11) around the U.S., working in a practice setting spending at least 80% of their time on direct patient care. [1-2]

Physicians identified **five barriers to providing secure firearm storage counseling, including inadequate screening mechanisms to trigger conversations, physician perceptions of who is at risk for firearm injury, time pressures, concerns about patient receptivity, and a need for training.**

#### Potential Policy Solutions

1. **Revise screening tools, such as Electronic Medical Records (EMR) to require universal screening for firearms in the home** to increase the inclusion of firearm safety in the anticipatory guidance/medical education portion of well-visits.
2. **Create a billing code for firearm safety counseling**, as Connecticut has done for provider-provided medical education on vaccines. (Connecticut General Assembly (2021). [Public Act 21-6: An Act Concerning Immunizations](#). Pg 24/26.) Such a code would provide physicians additional time to discuss, or provide information on, firearm safety.
3. **Provide medical providers training and materials** to effectively communicate best practice for firearm storage, CT's legal requirements for firearm storage, and how to counsel and petition for ERPOs.

#### References:

[1]Dineen, J.N., Doucette, M., Carey, M., Raissian, K. Conversation Starters: Understanding the Facilitators and Barriers to Physician-Initiated Secure Firearm Conversations. *Patient Education and Counseling*. 2024; 119. <https://doi.org/10.1016/j.pec.2023.108062>

[2]Dineen, J.N., Raissian, K., Grasso, D., et. a. *Gun Talk: Identifying the Facilitators and Barriers to Provider-Initiated Conversations Regarding Securing Firearms*. Presented at the 2<sup>nd</sup> National Research Conference for the Prevention of Firearm-Related Harm Chicago, Illinois 1.



January 2023

## Protecting CT Kids and Families by Reducing the Impact of RSV Bronchiolitis

**#1**

Most Common Cause of Infant Hospitalization in the United States  
Source: Ralston 2014

**>2,500**

Emergency Department Visits in CT Every Year for Bronchiolitis  
Source: Connecticut Hospital Association

**80%**

Risk Reduction with Immunization  
Source: Simões 2023

### What is RSV bronchiolitis?

Bronchiolitis is a lung infection commonly caused by Respiratory Syncytial Virus (RSV), and is the most common cause of infant hospitalization in the U.S. Children with RSV struggle to breathe, resulting in low oxygen levels and dehydration.

### What can we do to reduce RSV's impact?

RSV in infants is now preventable! Pregnant people can be vaccinated and infants can be immunized with nirsevimab, a new treatment to prevent RSV infection.

### What do these new prevention options mean for CT?

We have the potential to achieve universal protection with either vaccination during pregnancy or via immunization of infants with nirsevimab. Taken together, these steps could reduce infant RSV hospitalizations by 80%, giving CT families back their time and peace of mind while freeing up hospital capacity.

### What could CT legislators do?

- Incentivize community-driven immunization education campaigns, focusing on disproportionately affected areas.
- Make all available data regarding RSV vaccination and nirsevimab immunization rates publicly available to allow resource targeting.

## Identifying and Mapping Bronchiolitis Clusters in Connecticut

Alexander H. Hogan MD, MS  
Pediatric Hospitalist, Connecticut Children's  
Assistant Professor of Pediatrics, UConn School of Medicine  
AHogan@ConnecticutChildrens.org

### A New Era in RSV Prevention

Bronchiolitis is the most common cause of hospitalization in children under two years in the U.S., affecting over 100,000 children each year. It is a virus-triggered inflammation of the lungs which causes infants to struggle to breathe. Any virus can cause bronchiolitis, but 76% of hospitalized cases are caused by respiratory syncytial virus (RSV). In 2022, the U.S. experienced a dramatic increase in RSV cases resulting in children staying in the Emergency Department (ED) for days, and the American Academy of Pediatrics declaring a national emergency. Frustratingly, we lack effective treatments once bronchiolitis has begun; we can only support infants through the illness with breathing machines and IV fluids. Therefore, disease prevention is critical and was, until this year, nearly impossible due to RSV's ubiquity.

In the summer of 2023, two new highly efficacious drugs were approved to prevent RSV infections in infants: an RSV vaccine and a monoclonal antibody (nirsevimab). By identifying regions in Connecticut disproportionately affected by RSV, communication campaigns and vaccine deployment can be more strategically targeted and reach the families who would benefit from these new treatments the most.

### How We Mapped RSV Bronchiolitis in CT

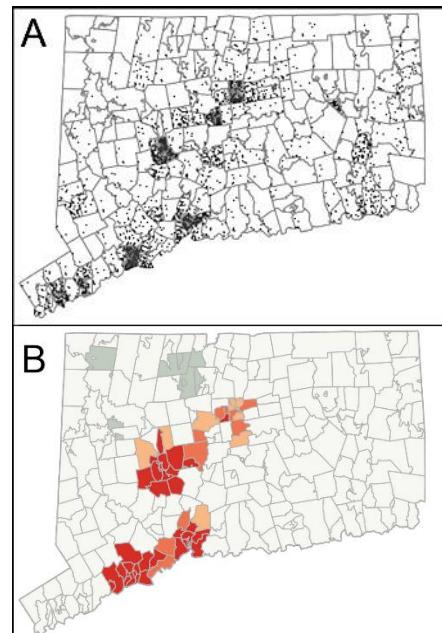
Using statewide ChimeData, we identified encounters from March 2018 - February 2022 for children under two years of age discharged from EDs and/or inpatient stays. For each included encounter, we isolated their home ZIP Code and calculated infection rates per 100 children. We then used geospatial techniques to identify statistical "Hot Spots" and "Cold Spots," areas with greater or less than expected hospitalizations.

### Results

There were 8,184 bronchiolitis emergency and hospital discharges, during the study period. Figure A shows where hospitalized children lived in CT with a black dot placed for each infant. Figure B shows the statistical "Hot Spots" (Red) and "Cold Spots" (Blue) showing the areas disproportionately affected relative to the entire state.

### Conclusion

RSV hospitalization is now preventable via vaccination during pregnancy or immunization with nirsevimab after birth. The children most frequently affected live in the major population centers in CT: Bridgeport, New Haven, Waterbury, and Hartford. To combat the most common cause of infant hospitalization we must target these areas to increase use of these effective new drugs.



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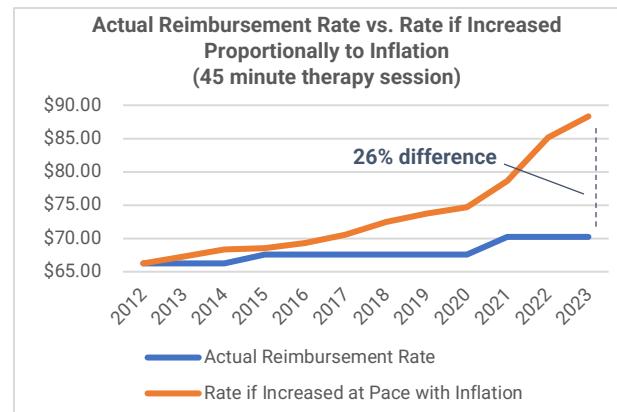
## Saving the Children's Behavioral Health Workforce

Aleece Kelly, MPP, Senior Associate, Child Health and Development Institute

Jason Lang, PhD, Chief Program Officer, Child Health and Development Institute

Like nearly every other state in the country, Connecticut is facing two urgent challenges that are resulting in long waitlists and delays in care: **increased behavioral health needs among the state's children and a workforce shortage among those who serve children with behavioral health needs.**

Connecticut's behavioral health system for children, youth, and families stands upon a sturdy foundation, including a robust continuum of services, a specific focus on the child and youth population, comparatively good access to evidence-based practices, and a dedicated network of providers. However, stagnant reimbursement rates combined with an increased need for behavioral health services have put immense strain on the system resulting in long waitlists and delays in care. As a result, the very foundation upon which Connecticut's children's behavioral health system was built is eroding.



## *Increasing Support for the Workforce is Necessary to Provide Timely and High-Quality Behavioral Health Services for Children in Connecticut*

### **Research from the Child Health and Development Institute ([CHDI](#))**

To address Connecticut's behavioral health workforce challenges, the Child Health and Development Institute conducted research with guidance from an advisory body representing diverse stakeholder groups within the state. Methods included a survey of behavioral health providers and family members of children with behavioral health needs, a comprehensive review of relevant workforce initiatives in other states, and interviews with in- and out-of-state experts. Our findings highlight key issues:

1. Workforce burnout and care delays due to rising acuity (i.e., severity of behavioral health symptoms) and staffing shortages.
2. Stagnant insurance reimbursement rates are inadequate to recruit and retain staff, hindering timely service delivery.
3. Persistent lack of parity between mental and physical health insurance despite existing laws.
4. Demographics of the workforce are less diverse than the population served.
5. Insufficient training to serve specific populations.

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## **Recommendations**

Through research on innovative solutions and best practices within Connecticut and across the nation, two primary recommendations were identified:

- 1. Increase reimbursement rates for children's behavioral health services to cover actual costs of high-quality care and establish a transparent and systematic rate-setting process.**

**The lack of adequate pay was among the most cited challenges** from survey respondents (both from staff as well as supervisors unable to attract qualified applicants for open positions). Nonprofit community-based and hospital providers largely rely on reimbursement from private insurers and Medicaid for revenue. However, **reimbursement is often significantly lower than the cost of the service**, making it challenging to pay wages sufficient to recruit qualified staff. While some services have received moderate increases in recent years, **there is no systematic approach to adjusting rates** to meet rising costs (see chart on first page), and staffing is suffering, with 1/3 of positions vacant in some programs.

States such as Maine and Massachusetts have adopted transparent and systematic Medicaid rate-setting processes, and other states have substantially increased rates to meet needs. **Connecticut made significant investments** in expansion of services (e.g., Public Act No. 23-101 in 2021), and required a review of reimbursement rates in recent legislation **but will need to increase rates to meet costs for programs so they can properly staff services to meet children's needs.**

- 2. Develop a children's behavioral health workforce center that can track and respond to trends in supply and demand and sustain workforce development efforts.**

While the first recommendation is intended to address the immediate staffing shortages, the State of Connecticut can sustain workforce efforts and prevent future workforce crises by creating a Children's Behavioral Health Workforce Development Center based on similar initiatives in other states, such as Nebraska or Alaska. Such a center would offer a **dedicated infrastructure to children's behavioral health workforce efforts that would enable Connecticut to address long-term pipeline solutions, implement programs to strengthen recruitment, retention, and diversity of the workforce, and monitor trends in supply and demand data** that strengthen the state's capacity to respond to changes in the labor market and/or children's wellbeing before workforce needs reach crisis levels again.

*You may read more on this work as well as additional recommendations in [Strengthening the Behavioral Health Workforce for Children, Youth, and Families: A Strategic Plan for Connecticut](#) which was produced by CHDI in collaboration with the Connecticut Children's Behavioral Health Plan Implementation Advisory Board with funding from the Connecticut Department of Children and Families.*

**Contact Us:**

Jason Lang, PhD ([jlang@chdi.org](mailto:jlang@chdi.org))  
Chief Program Officer, Child Health and Development Institute

Aleece Kelly, MPP ([akelly@chdi.org](mailto:akelly@chdi.org))  
Senior Associate, Child Health and Development Institute

**About CHDI:**

*The Child Health and Development Institute is a non-profit organization providing a bridge to better and more equitable behavioral health and well-being for children, youth, and families. We collaborate with policymakers, providers, and partners to transform child-serving systems, disseminate evidence-based and best practices, and advance policy solutions that result in better outcomes for children in Connecticut and beyond.*

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## **Overdose Prevention Centers' Effects on Crime: Recent Research from New York City**

David Mitre-Becerril, University of Connecticut School of Public Policy

The drug overdose crisis has been a recurrent challenge in the U.S., including the state of Connecticut. As states experiment with different interventions, several jurisdictions have moved from punitive measures to a treatment and harm reduction approach—one contentious aspect of which is the establishment of overdose prevention sites, also known as safe or supervised injection sites. Public opinion is not yet overly supportive of overdose prevention sites, often questioning whether they will lead to increases in neighborhood crime. Recent research<sup>1</sup> examining the effects of New York's first two legally sanctioned facilities provides important insights for policymakers who want to fight overdose in their communities while assuaging residents' and their own concerns about crime, violence, and blight.

### **Mitigating Fatal Overdose Risks; Lacking Public Support**

Overdose prevention sites provide services to people who use drugs, such as syringe exchange programs, in-house clinical and health services, and drop-in assistance (meals, showers, and laundry). A distinctive feature of these sites is that they allow individuals to consume pre-obtained illicit substances under the supervision of trained staff, effectively mitigating the risk of fatal overdoses. Notably, there has been no reported overdose-related death within these sites.<sup>2</sup> Despite their life-saving potential, these facilities still lack public support in the U.S., where only one in three Americans endorse their legalization.<sup>3</sup> This lack of support often stems from concerns that these sites might encourage illegal activities in the community.<sup>4</sup> However, my recent study, coauthored with Aaron Chalfin of the University of Pennsylvania and Brandon del Pozo of Brown, sheds light on the potential impact of overdose prevention sites on neighborhood crime dynamics.

### **Early Results from New York City: Decreased Arrests, No Increases in Reported Crime**

In November 2021, New York City made the groundbreaking decision to officially open two government-sanctioned overdose prevention facilities in East Harlem and Washington Heights, utilizing sites that have previously housed syringe exchange service facilities. From 2019 to 2021, prior to their conversion to overdose prevention sites, the facilities had more than 1,800 crime-related emergency calls yearly (seven times more than the average citywide trend) within a six-block

<sup>1</sup> Chalfin, A., Del Pozo, B., & Mitre-Becerril, D. (2023). Overdose prevention centers, crime, and disorder in New York City. *JAMA network open*, 6(11), e2342228-e2342228.

<sup>2</sup> Kral, A. H., Lambdin, B. H., Wenger, L. D., & Davidson, P. J. (2020). Evaluation of an unsanctioned safe consumption site in the United States. *New England Journal of Medicine*, 383(6), 589-590.

<sup>3</sup> McGinty, E. E., Barry, C. L., Stone, E. M., Niederdeppe, J., Kennedy-Hendricks, A., Linden, S., & Sherman, S. G. (2018). Public support for safe consumption sites and syringe services programs to combat the opioid epidemic. *Preventive medicine*, 111, 73-77.

<sup>4</sup> Barry, C. L., Sherman, S. G., Stone, E., Kennedy-Hendricks, A., Niederdeppe, J., Linden, S., & McGinty, E. E. (2019). Arguments supporting and opposing legalization of safe consumption sites in the US. *International Journal of Drug Policy*, 63, 18-22.

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radius of their locations. Moreover, these sites experienced 214 drug-related and 12 weapon-related arrests in a year (more than ten times larger than the city trend).

After opening the overdose prevention sites:

- **Arrests for drug and weapons possession decreased in the immediate vicinity**
- **No significant increases in reported crime, disorder complaints, or related 311 and 911 calls occurred**

My colleagues and I compared changes over time between the overdose prevention sites and a control group consisting of 17 state-authorized brick-and-mortar syringe service sites throughout New York City. We further tested these results against two alternative control groups with similar levels of violent crime and drug arrests. All the results lead to the same conclusions: After the overdose prevention sites opened, **nearby arrests for drug and weapons possession decreased by 82.7% and 56.5%** relative to the control group. Likewise, **criminal court summonses decreased by 87.9%** in their immediate vicinity. Furthermore, the operation of the sites **did not increase crime as measured by reports to the police or 911 and 311 calls for service**. This metric is reassuring in that, while police have some discretion in recording and enforcing calls for disorder and low-level misdemeanors (so decreases in that metric might reflect policy behaviors and not actual crime reductions), they have less discretion when citizens report such incidents. Finally, criminal trespass, medical request emergency, and homeless-related calls decreased after opening the overdose prevention facilities.

### **Support from Law Enforcement and Community Engagement is Fundamental for Success**

These reductions in arrests and crime reports have bolstered Mayor Eric Adams' pronounced support for the overdose prevention sites and intention to open additional facilities. But it is important to maintain a nuanced interpretation of our study; it may be that rather than a literal decrease in arrestable offenses, the changes in law enforcement we observed may reflect local law enforcement's desire not to deter clients—particularly those fearing arrests for narcotics possession—from visiting these facilities. Furthermore, the facilities and their staff may have absorbed and mitigated some behaviors that otherwise would have been handled by law enforcement. Overdose prevention sites may not be a panacea for eliminating serious neighborhood crime. Ideally, our study will encourage further research to measure changes in residents' perceptions of safety and disorder over time.

But overall, recent evidence on the impacts of the first two government-sanctioned overdose prevention sites provides encouraging insights and policy recommendations. A collaborative relationship between law enforcement and these facilities is fundamental to enhancing life-saving interventions without compromising community safety. Clearly, they do not bring more serious criminal activity to the community, and they may be taking in behaviors that otherwise would have been handled by the criminal justice system. Their successful operation represents a marked shift towards a harm-reduction approach that warrants ongoing investigation and support.

## ADDING BODY SIZE TO CONNECTICUT'S CIVIL RIGHTS LAW

Rebecca Puhl, PhD, University of Connecticut

### Context

Weight stigma and discrimination are pervasive in the United States against people with larger body sizes and especially those who have obesity. Despite clear evidence that weight discrimination is prevalent and has a harmful impact on people who are mistreated, there is no federal law that protects people against weight discrimination. In the absence of a federal law, a number of cities and states have taken legislative action to add weight and height to their civil rights laws, offering protection and a remedy to people discriminated against due to their body size.

Connecticut has a strong human rights law but has remained silent while other New England states and cities have introduced and/or passed legislation to prohibit weight discrimination. In Connecticut, 35% of adults are overweight and 30% of adults have obesity, highlighting the high number of people in Connecticut who are vulnerable to mistreatment because of their body size. **To protect Connecticut citizens from weight discrimination in employment, housing, and access to public accommodations, Connecticut should pass legislation adding body size to its list of protected categories.** This law would make body size discrimination unlawful in Connecticut, leading to lower rates of bias and unfair treatment, improving access to services, and increasing safety and quality of life for Connecticut citizens.

### Weight Discrimination is Prevalent and Harmful

National research studies consistently show that weight discrimination is prevalent and experienced by 19-42% of U.S. adults with obesity. People are treated unfairly because of their body size in many domains of society including employment, healthcare, educational institutions, and the mass media. Weight discrimination is harshest for individuals at the highest weight levels, and rates of weight discrimination are typically higher for women than men. For example, in employment settings, people who have higher weight are less likely to be hired for jobs that they are qualified for, receive lower salaries compared to thinner employees (particularly for women)<sup>[1]</sup>, and face stigma in the workplace from co-workers and supervisors because of their body size.

Weight discrimination is also harmful to individuals' emotional and physical health.<sup>[2]</sup> Many research studies indicate that people who are stigmatized because of their weight are at increased risk of emotional distress (e.g., depression, anxiety, substance use, eating disorders, suicidality), and poor physical health (e.g., increased physiological stress, cardiovascular disease risk, weight gain). Additionally, this causes those impacted to avoid healthcare.

This evidence clearly shows that weight discrimination is both a social injustice and a significant public health issue. In 2020, international scientific and medical communities issued a consensus statement calling for strong and clear policies to prohibit weight discrimination. This report was published in the esteemed medical journal *Nature Medicine*, and was signed by more than 100 medical and scientific organizations across the U.S. and worldwide.

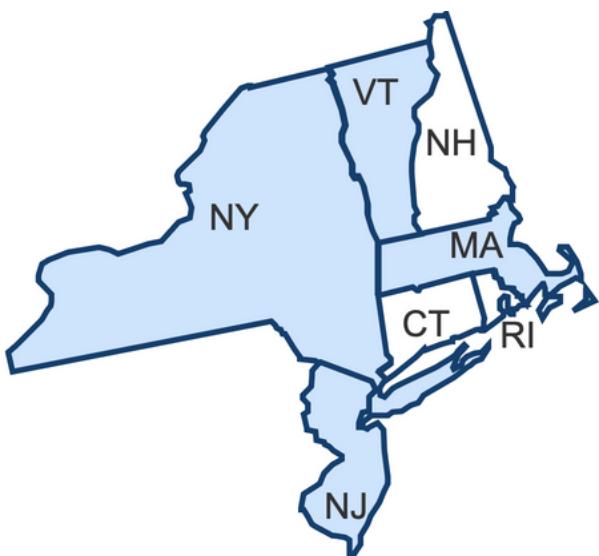


## Today's Legal Landscape

Americans have almost no protection against weight discrimination. It remains legal most places in the country to treat people unfairly because of their body weight or size. Exceptions include Michigan and Washington where state-wide discrimination bans have been enacted. Michigan enacted the Elliott-Larsen Civil Rights Act in 1977, which prohibits discrimination based on 10 categories, including body weight, in employment, housing, and real estate, public service, and public accommodations. **Since passing this law over 40 years ago, evidence from state-wide research in Michigan shows lower rates of weight-related employment discrimination for women compared to national rates of weight discrimination.**<sup>[3]</sup>

More recently, policy efforts have emerged in the Northeast. Massachusetts, New Jersey, Vermont, and New York have introduced state-wide bills proposing to ban weight and height discrimination in employment, housing, and public accommodations. Local jurisdictions banning weight discrimination have also been passed in cities across the country such as San Francisco (CA), Santa Cruz (CA), Washington D.C., Urbana (IL), Binghamton (NY), and Madison (WI). In 2023, New York City enacted a law amending their Human Rights Law to ban employment discrimination on the basis of a person's body size, protecting all New Yorkers, regardless of their body shape or size, from discrimination. **While these recent initiatives reflect important steps in the Northeast to address weight-based inequities, Connecticut has remained silent on this issue.**

States that recently introduced legislation to prohibit weight discrimination



## Public Support for Legislation to Prohibit Body Size Discrimination

For over a decade, research has tracked public support for laws to prohibit weight discrimination in the United States.<sup>[4]</sup> **As many as 2/3 of U.S. adults support legislation that would add body weight as a protected class in their state's Civil Rights statute and for laws to prohibit weight-based employment discrimination in the workplace.**<sup>[5]</sup> This evidence indicates that the public views policy as an appropriate and needed remedy to address weight discrimination.

## Policy Recommendations

Simply put, weight discrimination is prevalent in our society and impairs people's health and quality of life, and there is considerable public support for legislation to ban weight discrimination. Citizens of Connecticut deserve protection from pervasive bias, unfair treatment, and inequities due to their body size. Adding body size as a protected category in Connecticut's Civil Rights Law will help ensure that Connecticut citizens of all body sizes can access services, live fulfilling lives, and be treated with respect, dignity, and equality.

**Prepared by the Rudd Center for Food Policy and Health, University of Connecticut**

## REFERENCES

1. Judge, T., & Cable, D. (2011). When It Comes to Pay, Do the Thin Win? The Effect of Weight on Pay for Men and Women. *Journal of Applied Psychology*, 96(1), 95-112.
2. Puhl, R.M., Himmelstein, M.S., & Pearl, R.L. (2020). Weight stigma as a psychosocial contributor to obesity. *American Psychologist*, 75, 274-289.
3. Roehling, M.V., Roehling, P.V. & Wagstaff. (2013). Sex Differences in Perceived Weight-Based Employment Discrimination When Weight Discrimination is Illegal. *Employ Respons Rights Journal* 25, 159-176.
4. Puhl, R.M., Suh, Y., Li, X. (2016). Legislating for weight-based equality: National trends in public support for laws to prohibit weight discrimination. *International Journal of Obesity*, 40, 1320-1324.
5. Puhl, R.M. (2022). Weight stigma, policy initiatives, and harnessing social media to elevate activism. *Body Image*, 40, 131-137.

**Contact Us:**

Kerri Raissian (Director): [kerri.raissian@uconn.edu](mailto:kerri.raissian@uconn.edu)

Jennifer Dineen (Assoc. Director): [jennifer.dineen@uconn.edu](mailto:jennifer.dineen@uconn.edu)

Twitter/X: [@UConn\\_ARMS](https://twitter.com/UConn_ARMS) Website: [arms.chip.uconn.edu](https://arms.chip.uconn.edu)



# UConn Center for

## Advancing Research Methods and Scholarship in Gun Injury Prevention

A Brief prepared by the UConn ARMS Center  
January 2024

### Lifetime History of Violence Exposure and Attitudes and Behaviors Regarding Firearm Safe Storage and Open Carry: A Person-Centered Analysis

The role of a person's past victimization is widely considered to be a factor in a person's gun ownership and how they perceive guns. However, victimization takes many forms – childhood trauma, intimate partner violence, community violence to name a few – and the ways in which victimization influences a person's behaviors and attitudes is nuanced.

Using data from a nationally representative sample, we use a person-centered analytic approach called latent class analysis (LCA) to help us understand how past victimization impacts if a person owns a gun, supports open carry, and supports safe firearm storage.

#### The Survey

- Contains responses from 2,007 adult Americans and used probability-based web panels to achieve a representative sample.
- The survey was administered online and by phone when requested from April 21 – May 15, 2022.
- Survey was offered in both Spanish and English.
- In addition to questions about gun ownership and behaviors, it includes a range of demographic variables to aid in analysis.

#### Victimization and Gun Ownership

- Our data revealed 6 distinct types of victimization categories: people with (1) high exposure, (2) moderate exposure including assault, (3) moderate childhood exposure including intimate partner violence, (4) high exposure including low levels of intimate partner violence, (5) moderate exposure including low levels of intimate partner violence, and (6) low to no exposure to violence.
- Being threatened by gun violence predicts support of gun ownership and open carry.

- Gun owners who report medium to high levels of violence exposure in childhood are more likely to report open carry outside of hunting.
- Low exposure victimization group is the least likely to have ever openly carried a gun. They are also the most likely to securely store a firearm when it's not in use.
- Those that have experienced intimate partner violence are the most likely to have openly carried a gun. They are also the group that is the least likely to securely store a firearm when it's not in use.
- However, those who have experienced IPV as adults are more likely to agree that locked firearm storage should be a requirement.

#### Key Takeaways

- Past victimization is an important factor in gun ownership and gun behaviors.
- The underlying kind of victimization matters to understanding gun ownership and preferences.
- Trauma-informed interventions may help in increasing uptake of evidence informed gun violence reduction strategies, such as secure firearm storage.
- This analysis is person-centered. A community – centered approach would complement the findings and strategies.

#### Study Notes

- This study was funded by the National Collaborative for Gun Violence Research. The conclusions and any errors are those of the authors.
- This work was completed by Kerri M. Raissian, Jennifer Necci Dineen, Damion Grasso, and Mitchell Doucette.

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## **Non-carbon-based fuels supporting decarbonization of the transportation sector.**

### **George M. Bolas**

P&W Endowed Chair Professor in Advanced Systems Engineering – Department of Chemical & Biomolecular Engineering, Director – Pratt & Whitney Institute for Advanced Systems Engineering, University of Connecticut. Email: [george.bolas@uconn.edu](mailto:george.bolas@uconn.edu)

### **Committee audience:**

1. Energy and Technology
2. Environment

### **Research Area:**

An area of need in Connecticut, the world's leader in renewable hydrogen production, is the utilization of hydrogen in our transportation infrastructure. Hydrogen is a chemical difficult to store and capture and its synthesis is today harmful to the environment, because it is produced from fossil fuels. Policies need to be put forward that incentivize green and blue hydrogen production, but also address the challenges of storage and transportation, as they relate to the State's transportation sector. The State of Connecticut is uniquely suitable to address this challenge because it has:

- Deep experience with fuel cell and electrolyzer manufacturing
- Billions in federal grants and tax credits via the Infrastructure Investment and Jobs Act & the Inflation Reduction Act
- State and regional climate and clean energy goals
- World leader in aerospace and submarine manufacturing

### **Existing Recent Legislation:**

- **Public Act No. 23-156 (2023)** requests that the Department of Energy and Environmental Protection shall develop and approve a hydrogen strategic plan.
- **Special Act 22-8 (2022)** establishes the Hydrogen Power Study Task Force to “study hydrogen-fueled energy in the state's economy and energy infrastructure.”
- **Conn. Gen. Stat. 16-244z. (2022)** procurement plans for electric distribution companies and implements a set of renewable energy tariffs.
- **Conn. Gen. Stat. 31-53d. (2021)** states that a developer of a 2 MW or greater Class I renewable energy project shall take all reasonable actions to ensure that a community benefits agreement is entered into and take appropriate actions to ensure a workforce development program is established.
- **Executive Order 21-3 (2021)** directs DEEP to include in the next Comprehensive Energy Strategy, a set of strategies to: (1) provide for more affordable heating and cooling; (2) achieve reductions in GHG emissions from residential buildings and industrial facilities; and (3) improve the resilience of the state's energy sector.
- **Conn. Gen. Stat. 22a-202 (2020)** establishes the CT DEEP Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) program, which provides support for zero emissions vehicles and hydrogen refueling, including passenger vehicles.
- **The 2020 Integrated Resource Plan (2020)** discusses clean hydrogen as a strategy to reduce electric system emissions.

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- **Conn. Gen. Stat. 16-244y (2018)** sets a competitive process for electric distribution companies (EDCs) to acquire new fuel cell electricity generation projects with preference given to projects that (1) use equipment manufactured in Connecticut; or (2) make use of existing sites and supply infrastructure.
- **Conn. Gen. Stat. 16a-3f through h (2018)** states that the DEEP commissioner may solicit proposals from providers of Class I renewable resources, including fuel cells, to provide a certain percent of EDC load.
- **Conn. Gen. Stat. 16-244x (2016)** establishes a pilot program to support the development of shared clean energy facilities

### **Research Area**

The search for alternative, carbon-free fuels to eliminate the world's dependence on fossil fuels has been a long journey for industry and academia. The recent global economic disruption, due to supply chain challenges related to the war in Ukraine, is only the newest reminder that our dependence on fossil fuels cannot continue for much longer. Climate disruption due to CO<sub>2</sub> emissions constitutes the need for carbon-free fuels eminent.

The automotive sector has focused their efforts on battery-operated vehicles, but the navy and aerospace sectors are more difficult to decarbonize. Hydrogen is often looked at as the solution to fueling our transportation fleet, but it comes with challenges in its transportation and storage. Instead, hydrogen carriers, chemicals that are rich in hydrogen and release (only) water when reacted with air are of increasing interest.

One such example of a hydrogen carrier is ammonia. Ammonia is a versatile chemical, with applications that include: (i) fertilizer; (ii) refrigerant; (iii) cleaning agent; and (iv) pharmaceuticals. It is estimated that the global value of the ammonia industry is over \$70B. Ammonia can also be used as a fuel in internal combustion and jet engines or in fuel cells. Benefits to using ammonia as fuel include: (i) combustion free of carbon emissions; (ii) stability even over refined fossil fuels like gasoline or diesel; (iii) low flammability; (iv) established transportation and supply chain infrastructure; and (v) high energy density.

Ammonia has nine times the energy density of lithium-ion batteries and three times that of compressed hydrogen. However, ammonia as a fuel entails many challenges that relate to: (i) its synthesis with near-zero carbon footprint; and (ii) its utilization for power generation, along with its emissions. Whilst ammonia has a well-established supply chain, the "green ammonia" market is new and unknown. This presentation will use ammonia as an example of chemical energy storage and hydrogen carriers and expand the discussion to alternative chemicals, of which the overall life-cycle reduces substantially the carbon footprint of the transportation sectors.

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## **Policy Recommendations**

1. Investigate the possibility of focused policy and market development support for clean hydrogen production and use in the highest priority end uses. These highest priority end uses include:
  - Aviation (long- and medium-haul)
  - Cargo ships
  - Critical facilities (24-hour backup need)
  - High heat industrial processes
  - Hydrogen fuel cells for peak power generation
  - Long-haul trucks
  - Material handling equipment with long uptimes and charging space or time constraints
2. Support the development of local technologies that enable distributed H<sub>2</sub> carrier synthesis for the important transportation sectors of CT (aerospace and maritime)
  - Support research infrastructure in the H<sub>2</sub> storage field (with chemical storage as an option)
  - Support research infrastructure in the field of distributed blue H<sub>2</sub> and H<sub>2</sub> carriers (e.g., NH<sub>3</sub>) synthesis and transportation
  - Legislation to fund a national research center on non-carbon based fuels
  - Support for entrepreneurship efforts in the field of renewable fuels and H<sub>2</sub> carriers
  - Support for research in the conversion of H<sub>2</sub> carriers to H<sub>2</sub>.

## **Bio**

Dr. George Bollas is the Pratt & Whitney Endowed Chair Professor in Advanced Systems Engineering with the Chemical & Biomolecular Engineering Department at UConn. He is also the Director of the Pratt & Whitney Institute for Advanced Systems Engineering at UConn. Prior to joining UConn, he was a postdoctoral fellow at the Massachusetts Institute of Technology and before that he received his BS and PhD in Chemical Engineering from the Aristotle University of Thessaloniki in Greece. His interdisciplinary research merges the fields of energy technology, process systems engineering and model-based systems engineering. His laboratory pursues a balanced approach to information theory for the design, optimization, control, operation, and maintenance of cyber-physical systems, with applications on energy, chemical industry, manufacturing, naval and the aerospace industry. Dr. Bollas is the recipient of the NSF CAREER and ACS PRF Doctoral New Investigator awards; the UConn Mentorship Excellence award; the UConn School of Engineering Dean's Excellence award; AIChE Teacher of Year award; and the Chemical & Biomolecular Department Service award. He was a member of the 2016 Frontier of Engineering Education of the NAE and was elected as member of the Connecticut Academy of Science and Engineering in 2020. He has partnered with over 100 industry professionals and executives in generating and managing funding for UConn that exceeds \$40M leading to joint R&D, technology, patents, and professional training programs. He manages a portfolio of over \$7M in research projects, while his Institute manages active research funding that totals over \$30M.

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## **To Reduce Effects of Extreme Rainfall Trends, Update Existing Water Infrastructure and Design Considerations in Connecticut**

Stergios Emmanouil and Emmanouil N. Anagnostou, University of Connecticut Civil and Environmental Engineering and Eversource Energy Center

Contact: [manos@uconn.edu](mailto:manos@uconn.edu)

Scientists and engineers are continuously learning more about how climate change affects natural hazards, such as intense storms and floods. An increasing number of studies suggest that heavy rainfall events, which can cause severe damage to critical infrastructure (e.g., roads, power grid, substations, stormwater drainage, etc.), will continue to intensify across the United States.

### **Connecticut's Water Drainage Systems are Unprepared to Mitigate Heavy Rainfall**

Recent severe storm events over the New England region showed how natural weather systems can swiftly evolve in a manner that overwhelms our current protection standards, leaving both rural and urban areas exposed to profound impacts.

In Connecticut, a group of researchers from UConn's Eversource Energy Center have focused on critical water drainage systems and how they have been affected by climate change over the past 40 years. Our team used advanced modelling techniques that quantify the effects of the rapidly changing climatic conditions on intense storms. Our study showed that, as the intensity and frequency of heavy rainfall events have increased over this time period, flooding issues affecting critical infrastructure also went up at a similar rate.

### **The Solution? Revising Current Engineering and Design Standards**

When designing water infrastructure, engineers have traditionally used models that simply adjust results based on ratios between present and predicted future rainfall amounts. This practice does not explicitly consider any of the intensifying trajectories our team has observed and the mounting evidence from other scientists about how climate change is affecting storm systems, which may lead to the creation of unnecessarily oversized and more expensive structures—or even worse, the improper maintenance and strengthening of existing systems.

To design and maintain critical water systems that can effectively deal with issues caused by climate change, we must meticulously revisit and revise the current engineering standards that govern infrastructure regulation and planning.

### **Educating About and Adopting Advanced Tools, Backed by Evidence**

Luckily, we do not need to “reinvent the wheel”; the evidence supporting existing—though still largely theoretical—modelling tools is robust, and these tools can be implemented under proper settings that limit the systematic and random inconsistencies of traditional approaches to provide real-world solutions. The scientists who are testing these models are doing their jobs to ensure

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efficacy and safety; such applications have been successfully published and presented in numerous peer-reviewed journals and scientific forums (a selection of which are listed as further reading at the end of this brief.)

We understand that using new engineering and design standards in place of longstanding models that have provided the basis for established techniques, technical reports, atlases, and regulatory frameworks that have been used in policymaking for decades is no simple undertaking. Nonetheless, educating engineers and policymakers about the existence of advanced tools, attempting to use such techniques in selected real-life applications for design purposes, and, ultimately, adopting them in cases of proven success, is a reasonable path forward. All we need to begin is to openly accept that issues with current practices exist, and that solely theoretically-founded solutions should constitute the means for change.

### **Will Revised Standards be More Effective?**

Recent examples from various countries in Europe, which have a stellar history and tradition of flood protection, continuously demonstrate that the issues we are facing are quite complex and multifaceted. European case studies can show how monolithic solutions based on past (and potentially obsolete) practices can have adverse effects. For example, oversizing coastal flood defenses is an intuitive, and most probably successful, solution to sea level rise and storm surge; yet, we now understand that inland areas will potentially be more prone to flooding from more intense and/or prolonged storm events that cannot be properly outsourced to the ocean. Our old solutions simply do not match our new reality.

The good news is, new systems designed based on properly framed techniques have the potential to be not just more economically viable, but also more effective at protecting the public over time without unreasonably high maintenance/redesigning costs.

### **Climate-Proofing Water Infrastructure Starts with Adopting New Standards**

- Current protection standards and existing infrastructure may be increasingly overwhelmed due to climate change's effects on intense rainfall events.
- Traditional approaches, and the application of simplistic climate change factors, may lead to significant inaccuracies and ineffective infrastructure design.
- Robust approaches, which explicitly account for the effects of climate change, could constitute an effective alternative, providing results that encapsulate a large spectrum of potential outcomes.

#### **Read more:**

Emmanouil, S., Langousis, A., Nikolopoulos, E. I., & Anagnostou, E. N. (2022). Investigating the Effects of Extreme Rainfall Trends on Existing Water Infrastructure and Design Considerations across the Connecticut River Basin. In AGU 2022 Fall Meeting. Chicago, IL.

Emmanouil, S., Langousis, A., Nikolopoulos, E. I., & Anagnostou, E. N. (2022). The Spatiotemporal Evolution of Rainfall Extremes in a Changing Climate: A CONUS-Wide Assessment Based on Multifractal Scaling Arguments. *Earth's Future*, 10(3). <https://doi.org/10.1029/2021ef002539>

Emmanouil, S., Langousis, A., Nikolopoulos, E. I., & Anagnostou, E. N. (2023). Exploring the Future of Rainfall Extremes Over CONUS: The Effects of High Emission Climate Change Trajectories on the Intensity and Frequency of Rare Precipitation Events. *Earth's Future*, 11(4). <https://doi.org/10.1029/2022EF003039>

## **The Need for and Value of Public Wildlands in Connecticut**

Susan Masino, Trinity College

Nature is our common lifeline, and a powerful and scalable solution to pressing challenges like a changing climate and rapidly increasing rates of poor mental health. Right now, Connecticut is blessed with natural public lands that support working forests and farms, protect clean water, and provide refuge for all species. However, the State has a great need for more designated Wildlands—that is, areas prioritized explicitly for natural processes.

Per CGS Ch. 439, Sec. 22a-15, “there is a public trust in the air, water and other natural resources of the state of Connecticut and... each person is entitled to the protection, preservation and enhancement of the same.” Protecting the public trust for the long term requires identifying, protecting, and connecting critical pieces of Wildlands across urban, suburban, and rural communities.

### **Where are Connecticut’s Wildlands?**

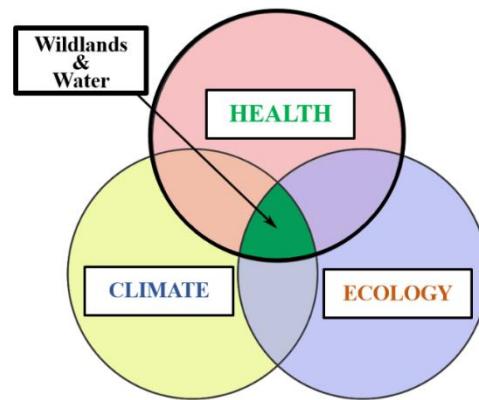
The history, science, and current status of Wildlands is outlined in a first-of-its-kind regional report co-led by Harvard Forest, Northeast Wilderness Trust, and Highstead, a nonprofit based in Redding, CT, titled “[Wildlands in New England: Past, Present, and Future](#).” In the report, Wildlands are defined as:

*“... tracts of any size and current condition, permanently protected from development, in which management is explicitly intended to allow natural processes to prevail with “free will” and minimal human interference.” It notes that “Humans have been part of nature for millennia and can coexist within and with Wildlands without intentionally altering their structure, composition, or function.”*

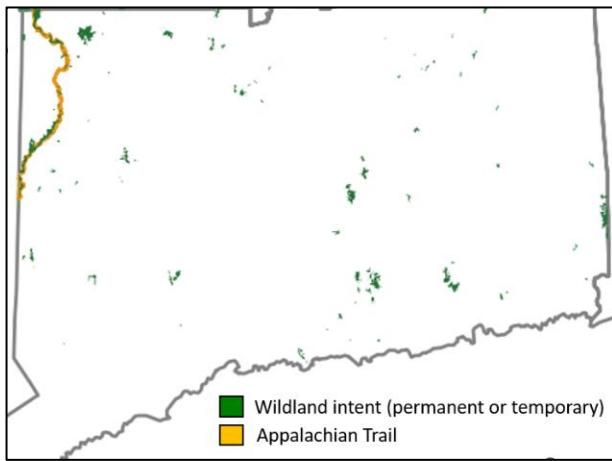
In short, Wildlands can welcome people, and be managed as needed, but the intent is to let natural processes prevail. While selective land clearing by native people and more extensive clearing by settlers have both been a part of New England’s history, charcoal and pollen records show that this area’s cultural heritage is largely a landscape of wild nature. Now, although the landscape is recovering from widespread forest clearing, Wildland intent has been confirmed on **less than 1% of Connecticut**—mostly scattered fragments of state forestland with weak or impermanent protection. As a result, headwaters, wetlands, wildlife corridors, critical habitats, and more—ecological lifelines—are at grave, increasing risk.

### **How Can We Identify and Protect More Wildlands?**

Wildlands are a smaller portion of the landscape (scientists recommend [30%](#)) but they are vital. The lack of designated Wildlands has not been well recognized, and most protected land is dedicated to a specific use (i.e., a farm, working forest, park), or available (by default) for multiple uses. Some possible uses are incompatible with a Wildland designation (i.e. timber production, or, increasingly



climate or habitat experiments). But the good news is there are simple, immediate, and low-cost ways to address this gap:



1. Protect and expand temporary Wildlands on state-owned public land.
2. Evaluate and protect suitable areas of critical habitat and natural biodiversity as natural area preserves on public land.
3. Prioritize Wildlands intent on existing public land and new land acquisitions intended as a natural area.
4. Develop and publish maps and educational material about Wildlands as a public ecology and health resource.
5. Establish more comprehensive protocols for long-term data collection.

Existing reports, statutes, and initiatives in Connecticut already make a strong case for Wildlands. The Governor's Council on Climate Change (GC3) [Science and Technology Working Group Phase 1 Report](#) states that “protecting natural ecosystems and wild areas...is essential.” The State’s Natural Area Preserve Program (CGS Sec 23-5c) states that “the commissioner shall establish a system of natural area preserves and shall... maintain such preserves in... natural and wild a state.” The soon-to-be updated [Green Plan](#) is an opportunity to highlight and prioritize Wildlands.

#### **What are Likely Outcomes and What is the Alternative?**

Nature is a powerful way to promote awe, compassion, creativity—and support mental and physical health; forests have been called “[Vitamin F](#)” for people and the planet, and since Connecticut is predominantly forested, the health effects of our Wildlands stand to be particularly robust. Wildlands optimize health benefits while also keeping our water clean, preventing floods, stabilizing the climate, and more. And some benefits, like new species and new medicines, are yet to be discovered. Wildlands are an essential reference condition, and long-term data collection is the only scientifically valid approach to understanding their full value and potential. Being clear about what is going on where in Connecticut’s natural landscape—and why—prevents conflicts and accidents, saves resources, and benefits everyone.

Regrettably, some misrepresent Wildlands as “irresponsible” and even dangerous or unscientific. This is misinformed and divisive, and ultimately harms the public and the public trust. The natural world is uniquely equipped to directly address our intersecting crises in health, ecology, and climate; without public Wildlands, residents and visitors of all ages would lose a critical means of experiencing beauty and wonder while connecting with each other and gaining health through the power of nature. Without a strategic plan for Wildlands, our future and natural heritage are at risk.

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## **Addressing Disaster Response and Preparedness Gaps in Connecticut**

Eleanor Shoreman-Ouimet, Ken Lachlan, Christopher Burton, James DiCairano, Ashley Walters,  
University of Connecticut

As climate change continues to amplify the frequency and severity of weather-related hazards, the need for effective disaster preparedness becomes increasingly critical.

We conducted a study as part of an effort to assess disaster preparedness and identify the roots and repercussions of preparedness disparity across socioeconomic groups in Connecticut. The results highlight how state-level disaster management systems might worsen preparedness gaps among towns and leave much of Connecticut poorly equipped to handle the growing threats of climate change-induced disasters in southern New England.

Our research to date indicates that longtime state and regional preparedness practices have yet to update to reflect current climate forecasts, effectively equip local emergency volunteers, or improve communication services to the extent necessary. For Connecticut to effectively manage the rising incidents of climate change-induced disasters, it's crucial for local-level disaster management to revise practices. This involves fostering more community-based engagement, particularly with a focus on collaborating with the state's most vulnerable populations.

### **Key Takeaways**

In our study, we interviewed Connecticut Emergency Management Directors and conducted a resident survey in four Connecticut counties on perceptions and concerns regarding Connecticut's disaster preparedness.

Our interviews with Emergency Management Directors reveal a number of significant themes:

- **Connecticut's State Response Framework depends upon a declining number of aging Emergency Management Directors** who are overburdened in light of increasingly frequent and severe weather-related hazard events.
- There are widespread issues with **inadequate communication systems between Emergency Management Directors and community members**.
- There is an overall sense that **residents lack risk awareness and preparedness knowledge**.
- **The state is not providing adequate financial resources** to support Emergency Management Director responsibilities, the development of emergency plans, or attract much needed additional employees/volunteers.
- The general **lack of diversity among Emergency Management Directors** in Connecticut lies in sharp contrast to increasing numbers of low-income residents who may be linguistically isolated, ethnically diverse, or otherwise marginalized.

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Additionally, our resident survey data indicates that racially minoritized and impoverished residents:

- Are seeking more preparedness information than less vulnerable residents
- Prefer person-to-person sources of emergency and disaster-related information, ideally from friends, family, church, libraries, schools, etc.
- Are less likely to be aware of their community's emergency management plan
- Are more likely to feel as though their needs are not being served by their town's emergency services

## **Recommendations**

Both our interviews with Emergency Management Directors and the resident survey data found a lack of sufficient communication systems, support for emergency management, and community engagement especially with the state's most vulnerable populations. In order to address the state's preparedness disparities, we have prepared the following recommendations:

- Disaster management policies and planning should **focus on recognizing the influence of extended families and social networks**.
- **Crisis communication should initiate at the community level and be dispersed through trusted community institutions** (libraries, schools, community centers, senior centers, and churches).
- **Risk awareness and preparedness education should be presented through trusted community institutions** (libraries, schools, community centers, public health facilities, senior centers, and churches).
- Crisis responders would be wise to **build relationships with community leaders** at trusted institutions to inform more effectively those who may be in harm's way.
- Risk education on preparedness strategies and municipal policies (parking restrictions, alert notification schedules, etc.) should be provided in **multimedia forms** (radio, mailings, emails, bulletins) and **available for English as a Second Language and non-English-speaking residents**.
- **The diversity of Emergency Management Directors and emergency response personnel should be enhanced** by actively including women and racially minoritized groups. **This can be achieved by expanding outreach of position advertising** to schools, community colleges, public health facilities, and churches.
- **Further state funding** is needed for part-time positions, updated emergency communications systems, emergency plan development, and resident risk and preparedness education programming.



# SOCIAL EMOTIONAL LEARNING: CHALLENGES AND SOLUTIONS TO SUPPORTING CHILDREN'S EMOTION COPING SKILLS

A CSCH Brief by Jessica B. Koslouski and Sandra M. Chafouleas

## Critical Gaps in Social and Emotional Learning (SEL) Programs

The COVID-19 pandemic and current children's mental health crisis have magnified the critical role that schools have in delivery of efficient and effective supports. More than two-thirds (68%) of public elementary schools report increases in the percentage of students who have sought school mental health services since the start of the COVID-19 pandemic.<sup>1</sup> Few school administrators, however, report being able to effectively provide those services.<sup>1</sup>

One potential solution to this misalignment of need and resources is universal social and emotional learning (SEL) programs, which can serve as proactive and preventive options to support students' positive social and emotional development.<sup>2</sup> Various definitions of SEL exist, but generally encompass (1) explicitly teaching specific skills through direct instruction, (2) improving classroom and school climate by improving teacher practices and school norms and expectations, or (3) influencing student mindsets such as their perceptions of themselves, others, and school.<sup>2</sup> Despite controversy reported in the media, parents overwhelmingly endorse support for shared responsibility across home and school for teaching children these important life skills.<sup>3,4</sup>

An important step to identifying opportunities to teach these critical life skills is understanding the current landscape of SEL program content. The EASEL Project at Harvard University recently mapped 33 of the most common social and emotional learning programs to identify which areas of SEL are taught.<sup>2</sup> Jones and colleagues identified six key domains of SEL: social, emotional, and cognitive skills, as well as mindsets related to identity, values, and perspectives. The vast majority of programs (84.8%) allocated more than half of their lessons to social skills. This is in stark contrast to the attention given to emotion skills: less than one-fourth of programs (21.2%) dedicated more than half of their lessons to emotion skills.

When emotion skills are taught, existing SEL programs focus on teaching emotional expression, but often overlook the necessary emotion skills of **emotion regulation, empathy, and perspective taking**. Table 1 shows current SEL programs that dedicate the highest percentage of lessons devoted to teaching emotion skills. Programs direct substantial attention to teaching emotional knowledge and expression (Column 3), with far less to teaching emotional and behavioral regulation or empathy and perspective taking. This missing instruction is problematic in that developing emotional regulation skills at young ages can have positive, cascading effects resulting in improved social skills, friendships,

Existing SEL programs often overlook the necessary emotion skills of emotion regulation, empathy, and perspective taking.

peer acceptance, and greater emotion regulation through middle childhood.<sup>1,5</sup> Throughout childhood and adolescence, students with strong emotion regulation skills demonstrate increased academic achievement.<sup>6,7</sup>

**Table 1. Percentage of Activities in Each Program Targeting Emotional Skills**

Program	Emotion skills	Emotional knowledge/ expression	Emotional/ behavioral regulation	Empathy & perspective taking
<a href="#">RULER</a>	91%	71%	33%	15%
<a href="#">Kimochis</a>	63%	59%	22%	18%
<a href="#">PATHS</a>	61%	53%	21%	17%
<a href="#">Conscious Discipline</a>	58%	46%	36%	5%
<a href="#">Feel Your Best Self</a>	100%	69%	62%	31%

*Note.* Activities may target more than one skill. With the exception of FYBS, data gathered from Jones et al. (2021).

Users of SEL programs must understand how content is distributed across critical life skills. SEL instruction should include opportunities to gain emotion skills that facilitate navigating everyday interactions, managing behavioral responses to emotionally-charged situations, and building positive relationships across settings.

## Filling the Gap in Emotion Coping Skills: One Local Solution

Created at the University of Connecticut, [Feel Your Best Self](#) (FYBS) is a freely accessible online toolkit that offers 12 simple, evidence-informed emotion-focused coping strategies.<sup>8</sup> Targeting elementary-aged children, FYBS uniquely incorporates puppetry in learning the strategies, bringing fun, choice, and creativity to the classroom. Since its release in 2022, FYBS has been used around the world, with over 115,000 views of the FYBS strategy videos and 30,000 material downloads. FYBS has received national media attention from [Edutopia](#), National Public Radio's [Morning Edition](#), and [Scripps News](#). FYBS teaches important life skills of emotional regulation, empathy, and perspective taking.

## Paths Forward to Support Children's Emotion Coping

The children's mental health crisis requires innovative, highly usable responses. Legislators can support shared responsibility for children's social and emotional development and mental health through the following actions:

1. **Advocate for universal SEL programming.** Understand the rationale and urgency for programming that reaches all children, building language to articulately respond to current controversies. See Tyner (2021) for an introduction.
2. **Ensure quality and comprehensiveness of SEL instruction.** This instruction should include critical life skills in emotion coping. Based on our review, many existing SEL programs do not sufficiently target these emotion skills.
3. **Write SEL policy with focus on usability.** Complex and unfunded mandates are difficult to implement and sustain, often failing to achieve intended outcomes. Solutions should emphasize usability, such as through accessible resources like FYBS.

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<sup>1</sup> U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, School Pulse Panel 2021-22. <https://ies.ed.gov/schoolsurvey/spp/>.

<sup>2</sup> Jones, S. M., Brush, K.E., Ramirez, T, Mao, Z. X., Marenus, M., Wettje, S., Finney, K., Raisch, N. Podoloff, N., Kahn, J., Barnes, S., Stickle, L., Brion-Meisels, G., McIntyre, J., Cuartas, J., & Bailey, R. (2021). Navigating SEL from the inside out: Looking inside and across 33 leading SEL programs – a practical resources for schools and OST providers. The EASEL Lab, Harvard University. Retrieved August 15, 2023 from <https://www.wallacefoundation.org/knowledge-center/Documents/navigating-social-and-emotional-learning-from-the-inside-out-2ed.pdf>

<sup>3</sup> Tyner, A. (2021). How to Sell SEL: Parents and the Politics of Social-Emotional Learning Suggested Citation for This Report. <https://fordhaminstitute.org/sites/default/files/publication/pdfs/20210811-how-sell-sel-parents-and-politics-social-emotional-learning.pdf>

<sup>4</sup> Emily Tate Sullivan. (2022, September 30). *Demystifying Social-Emotional Learning and the Controversy Surrounding It*. EdSurge; EdSurge. <https://www.edsurge.com/news/2022-09-30-demystifying-social-emotional-learning-and-the-controversy-surrounding-it>

<sup>5</sup> Blair, B. L., Perry, N. B., O'Brien, M., Calkins, S. D., Keane, S. P., & Shanahan, L. (2015). Identifying developmental cascades among differentiated dimensions of social competence and emotion regulation. *Developmental Psychology, 51*(8), 1062–1073. <https://doi.org/10.1037/a0039472>.

<sup>6</sup> Graziano, P. A., Reavis, R. D., Keane, S. P., & Calkins, S. D. (2007). The role of emotion regulation and children's early academic success. *Journal of School Psychology, 45*(1), 3–19. <https://doi.org/10.1016/j.jsp.2006.09.002>

<sup>7</sup> Supervia & Robres, (2021). Emotional regulation and academic performance in the academic context: The mediating role of self-efficacy in secondary education students. *International Journal of Environmental Research and Public Health, 18*(11), 5715. <https://doi.org/10.3390/ijerph18115715>.

<sup>8</sup> Koslouski, J. B., Iovino, E. A., & Chafouleas, S. M. (Revision under review). Feel Your Best Self: Insights from Elementary Teachers' Use in Teaching Emotion-Focused Coping Strategies.

## ***Moving Beyond Conference***

**Tuesday, January 9, 2024**

Legislative Office Building in Hartford, Connecticut



### **Every Classroom in Connecticut should have a DIY air purifier.**

*Jessica P. Hollenbach, Marina A. Creed, Kristina M. Wagstrom, Misti Levy Zamora*

Though CT strengthened policy around school indoor air quality (IAQ) (PA-23-167) and launched a competitive heating, ventilation, or air conditioning (HVAC) reimbursement program, many schools remain at risk for poor IAQ. Unfortunately, due to the complex HVAC bond application process, it can take years for school districts to complete the assessment, approval, application, and installation process. However, the installation of a *Do-It-Yourself air purifier* would provide immediate improvement to Connecticut's students, while the longer-term HVAC improvements are in progress.

#### **Why is poor indoor air quality in schools a concern?**

Connecticut schools suffer from poor IAQ due to a myriad of suboptimal conditions, such as extreme classroom temperatures and inadequate ventilation and air filtration. Many types of air particles can be present in a typical classroom from both indoor, such as virus-laden respiratory particles, and outdoor sources, all of which increase the potential for long- and short-term health problems for students and staff. Children are particularly vulnerable to poor IAQ because their breathing rates are higher than those of adults; this means they take in more air per pound of body weight, which makes them more vulnerable to the adverse effects of indoor air pollution. In particular, poor IAQ is associated with students' chronic absenteeism, poor cognitive function, lower test scores, and caregiver-missed workdays.

#### **DIY air purifiers are cost-effective, peer-reviewed tools that make healthy IAQ accessible and equitable to all.**

Commercial air purifiers are expensive and often untested in real-world settings. Fortunately, there is an effective, cheaper option that has the added benefit of engaging students in a STEAM (science, technology, engineering, arts, and math) curriculum. For just \$60 of easily accessible materials (a box fan, filters, and duct tape), students can build their own DIY air purifier.

The DIY air purifier improves air quality by removing particles similar in size to those that carry respiratory viruses and associated with the biggest health impacts (particulates with a diameter of  $\leq 2.5 \mu\text{m}$ ; PM<sub>2.5</sub>). During a recent wildfire event in Connecticut, one DIY purifier was able to reduce the indoor air pollution concentration by over 90% within 15 minutes. Alongside these real-world results, the CLEAR team tested DIY air purifiers in the U.S. EPA Homeland Security Division Laboratory's 3,000 cubic ft. biochamber and found that they removed 97% of infectious aerosols in just 30 minutes.

#### **DIY air purifiers comply with the School Indoor Air Quality Act PA-23-167.**

- IAQ Inspections and evaluations must now be done annually
- IAQ monitoring will streamline reporting requirements

- Compliance with the EPA's Indoor Air Quality Tools for Schools Program is required
  - Our team is Tools for Schools trained!
- Peer-reviewed DIY air purifiers can be included in proposals to DAS!

## CR boxes check all the boxes



Mitigates the negative impacts of polluted air and has the potential to improve student absenteeism



Cost-effective (\$4 per student) and peer reviewed in real-world and laboratory settings



Saves educators' time on lesson planning while meeting next generation science standards



Empowers and educates the students through a STEAM project

### DIY air purifiers also achieve educational outcomes!

The UConn Indoor Air Quality Initiative (CLEAR), a multidisciplinary group of clinicians, scientists, and public health experts, created a STEAM curriculum to empower students to build DIY air purifiers and clean their schools' indoor air. We have designed curricula ([5<sup>th</sup> grade unit](#), [8<sup>th</sup> grade unit](#)) that fulfill the requirements of CT's mandated climate change curriculum, saves educators time on lesson planning, and empowers Connecticut's youth to address the climate crisis. To date, the CR Boxes have been well received by community partners, and our team is continually getting unsolicited requests.

### Getting DIY air purifiers into all 935 Connecticut Schools is Attainable.

The CLEAR team is well-positioned to disseminate DIY air purifiers to all 935 schools in CT. We have the necessary infrastructure to design, respond to, and build DIY air purifiers with schools. We also have an established logistics workflow for material acquisition. In order to complete this we request support from the Department of Education to universally adopt and promote the curriculum and to provide funds (\$4/student) for materials.

### Author Contact Information:

- Jessica P. Hollenbach, PhD. Co-Director, Asthma Center, CT Children's [jhollenbach@connecticutchildrens.org](mailto:jhollenbach@connecticutchildrens.org)
- Marina A. Creed, FNP-BC, MSCN. Director, UConn Indoor Air Quality Initiative (CLEAR), [creed@uchc.edu](mailto:creed@uchc.edu)
- Kristina Wagstrom, PhD Associate Professor, University of Connecticut, Chemical and Biomolecular Engineering, [Kristina.wagstrom@uconn.edu](mailto:Kristina.wagstrom@uconn.edu)
- Misti Levy Zamora, PhD, Assistant Professor, Department of Public Health Sciences UConn School of Medicine, [mzamora@uchc.edu](mailto:mzamora@uchc.edu)

## Delaying School Start Times to Improve Adolescent Mental Health

Marney A. White, Yale School of Public Health and Yale School of Medicine

[Public act 23-101](#) requested that a task force evaluate the feasibility of a state-wide mandate to adjust (delay) start times for high school students. [The report](#) was finalized in November 2023 and noted the clear benefit of adjusting start times to adolescents' mental and physical safety. However, multiple obstacles related to district variability in terms of population density, bussing needs, traffic congestion, and availability of childcare undermine the feasibility of a *uniform* state-wide policy. Feasibility concerns are real, but they do not change what science shows: [Early school start times](#), like those in effect across the state of Connecticut, are especially detrimental since they conflict with adolescents' sleep needs. Legislators who want to see improvement in teen mental and physical health—and even potentially better health equity between socioeconomic groups—could consider legislation that incentivizes districts to adjust start times, and which might offset increased costs of bussing and/or childcare obstacles.

### Mental and Physical Health Context

Connecticut's youth are in a mental health crisis. [More than 1 in 4 of Connecticut's adolescents report poor mental health](#). Sleep deprivation is a primary risk factor for mental health problems in teens and is associated with [depression](#), [anxiety](#), and suicidality. There are a host of physical problems related to sleep deprivation, including [immune-related disease risk](#), [obesity](#), and associated problems such as diabetes and heart disease. Adolescence is a critical developmental period, and sleep problems in adolescence are associated with chronic health problems extending [into adulthood](#).

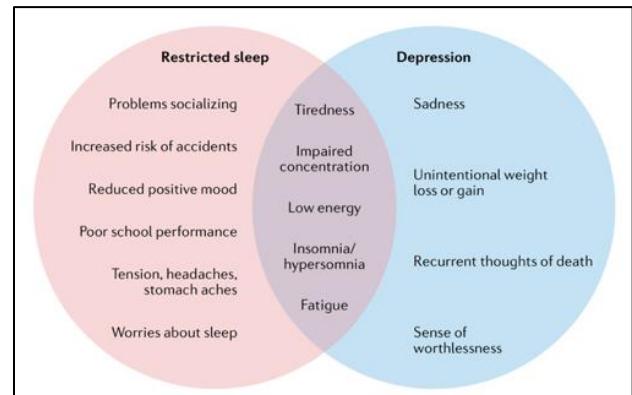
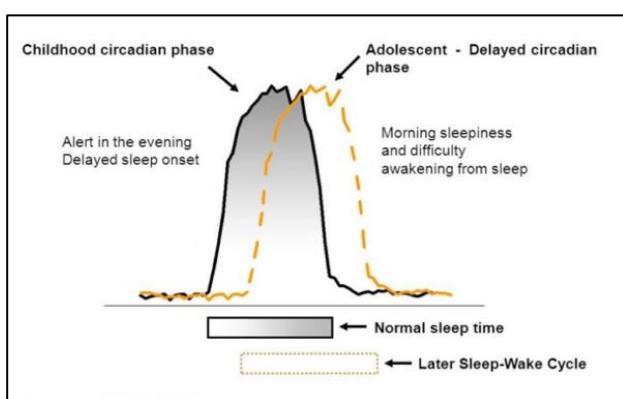


Figure 1: Gradisar et al (2022); Nature Reviews Psychology



Teenagers' [circadian rhythms](#) differ from those of adults and young children, with their arousal (that is, their most wakened state, when they are alert) peaking in evening hours, and restorative sleep occurring later in the morning. Even if they go to bed earlier, teens' sleep quality is disrupted by early wake times—leading to daytime sleepiness, poor concentration, and other cognitive difficulties.

Figure 2: American Academy of Sleep Medicine (2006)

The American Academy of Pediatrics, noting an “epidemic of insufficient sleep in teenagers,” proffered a position statement that [high schools should not start before 8:30 a.m.](#)

### Health Equity

Research has also identified that sleep deprivation among [urban](#) and [socioeconomically](#) disadvantaged youths further exacerbates gaps in [academic](#) and health outcomes, and underscores the need to adjust school start times wherever possible. To this end, [some research](#) has indicated that improvements in youth sleep can mitigate some of the cognitive and emotional detrimental effects of socioeconomic disadvantage.

### Connecticut’s Start Times

The *average* high school start time in Connecticut is [7:39 a.m.](#), meaning that roughly 50% of schools have a start time well before the AAP’s recommendation. When averaged across all districts, Connecticut has the [fourth earliest](#) high school start time in the entire country.

Research conducted in [Connecticut and other states](#) has found that delaying high school start times by an hour to [30 minutes](#) results in increased sleep duration, and subsequent improvements in academic and health outcomes.

Additional research on more modest adjustments echoes this finding: A mere 25-minute delay in high school start time yielded an average 29 additional minutes of sleep, and corresponding improvements in daytime sleepiness. Strikingly, the number of students reporting at least 8-hours of sleep rose from 18% to 44% following the 25-minute delay in start times.

### Undeniable Benefits

The research [conducted over the past three decades](#) is definitive: High-school aged children benefit from later start times. Later start times ensuring adequate sleep are associated with [reduced rates of suicidal thoughts](#), lower incidence of [mental health diagnoses](#) such as [depression](#), anxiety, and substance abuse disorders, and fewer [driving accidents](#) in this high-risk population. Later start times are also associated with [enhanced academic achievement](#).

Wherever feasible, districts should strongly consider adjusting school start times as a primary intervention for teen mental and physical health. Connecticut state policy could be designed to incentivize or fund programs to accommodate start-time adjustments, such as increased need for childcare and additional bussing costs. All states must face the reality that too-early high school start times are harming students’ health and academic potential; Connecticut lawmakers have every reason to take the lead in advocating for science-based school policies that can provide demonstrable solutions to these growing national challenges.

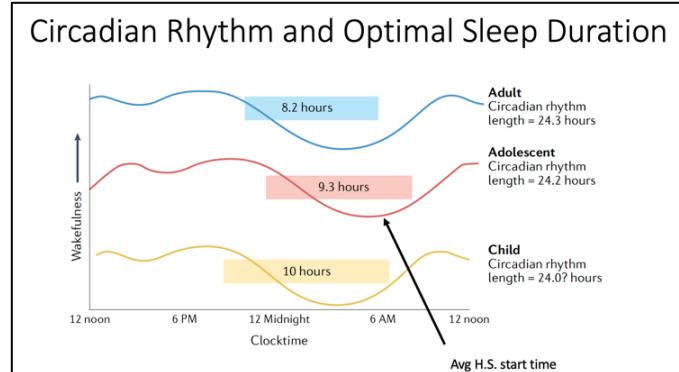


Figure 3: adapted from Gradasar et al (2022); Nature Reviews Psychology

# Policy Brief

## USDA Summer Meal Waivers

### Strengthening Childhood Food Security in Connecticut

By Brooke Bennett, PhD, Sarah McKee, PhD, Alyssa Moran, ScD, and Marlene Schwartz, PhD

#### Overview of the State of Knowledge

When school is out of session, students lose access to school meals and are more likely to experience food insufficiency.<sup>[1], [2]</sup> The USDA summer meal programs seek to fill this gap by providing free meals and snacks to children in eligible community settings. However, compared to participation in school meals, participation in summer meals is extremely low. In summer 2019, **just 13.8% of children participating in school meals received a summer meal.**<sup>[3]</sup> Low participation is attributed, in part, to: (1) poor access to meal sites, which can only operate in areas where at least 50% of students are eligible for school meals; (2) rules prohibiting sites from offering meals "to-go"; and (3) rules requiring meals be served directly to children at constrained times.<sup>[4], [5]</sup>

#### USDA SUMMER MEAL WAIVERS

During the COVID-19 pandemic, the USDA temporarily waived several program rules to increase program access and efficiency.

- 1. Area Eligibility Waiver:** Allowed meal program sites in any area demonstrating need, regardless of family income.
- 2. Meal Times Waiver:** Allowed distribution of multiple meals outside of standard meal times.
- 3. Non-Congregate Feeding Waiver:** Allowed meals "to-go".
- 4. Parent/Guardian Meal Pick-Up Waiver:** Allowed parent meal pick-up without children present.



#### WHAT HAPPENED IN CONNECTICUT DURING COVID-19?



#### Student participation and summer meal distribution increased.

- Participation in July nationwide increased 123% in 2020 and 101% in 2021 compared to 2019.<sup>[6]</sup>
- In Connecticut, meal distribution increased 84% in July 2020 and 69% in 2021 compared to 2019.<sup>[7]</sup> This was due, in part, to program options that increased participation at each site.<sup>[8]</sup>
- In 2022, waivers were extended late and not fully utilized by programs. Participation decreased dramatically, nearly returning to pre-pandemic levels.<sup>[9]</sup>
- When the waivers ended, participation in 2023 fully dropped down to pre-pandemic levels.<sup>[10]</sup>

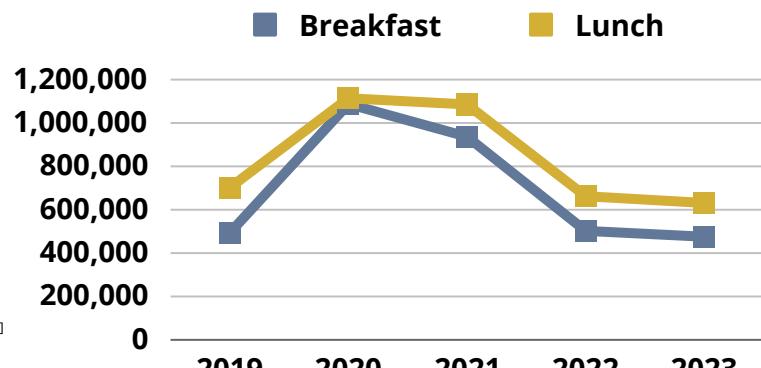


Figure 1. Meals Distributed Statewide in July across Time.



## Meal site availability improved.

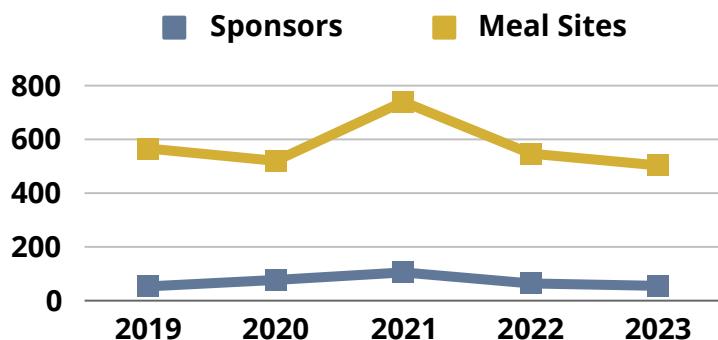


Figure 2. Participating Summer Meal Sites that Served Lunch.

- In Connecticut, the number of sites serving breakfast increased 61% and the number of sites serving lunch increased 31% between July 2019 and July 2021. <sup>[7]</sup>
- Expanded access to meal sites across the state made it easier for families to access meals.
- In 2022, the delayed extension of the waivers made it difficult for sites to open on time for families.
- Then, in 2023, meal site availability dropped even further, returning to pre-pandemic levels. <sup>[7]</sup>

## Food service administrators and parents preferred the new rules.

- Interviews with food service administrators found that the package of waivers offered by USDA was critical for operating summer meal programs. <sup>[11]</sup>
- In Connecticut, food service administrators reported that the waivers allowed them to solve problems related to program participation flexibly and creatively. They also felt that the waivers, particularly the ability to take meals "to-go", reduced program stigma. <sup>[12]</sup>
- Connecticut parents participating in summer meals were enthusiastic about the waivers, reporting that the ability to pick up multiple meals at once, to take meals "to-go", and to pick up meals without their child present all positively influenced their decision to participate. They cited several benefits of a "to-go" option, including less interference with work schedules and more opportunities to cook and eat with children at home. <sup>[13]</sup>



## KEY POLICY TAKEAWAYS

The COVID-19 summer meal waivers increased availability of summer meal program sites, substantially increased participation in summer meal programs, and were well-received by parents and food service administrators. It is evident that offering these program flexibilities long-term will improve access to nutritious meals for children when school is out of session. Thus, the evidence points toward the following:

1. Allow sponsors to incorporate congregate and "to-go" meals in ways that best meet the needs of the community.
2. Reduce the area eligibility threshold to 40% and allow states flexibility to demonstrate need through other means.
3. To maximize the benefits of summer meals, support youth access to summer enrichment activities and align summer meal nutrition standards with the *Dietary Guidelines for Americans*.

## REFERENCES

1. Huang J, Barnidge E. Low-income children's participation in the National School Lunch Program and household food insufficiency. *Soc Sci Med*. 2016 Feb;150:8-14.
2. Huang J, Barnidge E, Kim Y. Children receiving free or reduced-price school lunch have higher food insufficiency rates in summer. *J Nutr*. 2015 Sep;145(9):2161-8.
3. Food Research and Action Center. [Hunger Doesn't Take a Vacation: Summer Nutrition Status Report](#). August 2020.
4. Bennett BL, Burkholder K, Esposito J, Chen X, McKee S, Chafouleas S, Schwartz MB. [Feeding Connecticut's Children During the Summer: An Evaluation of Access and Family Perspectives on Meal Sites](#). UConn Rudd Center for Food Policy and Health. 2021.
5. Hill K. [Summer Meals for NYC Students: Understanding the Perspectives and Experiences of Families](#). The Research Alliance for New York City Schools. May 2021.
6. Food Research and Action Center. [Hunger Doesn't Take a Vacation: Summer Nutrition Status Report](#). Jan. 2023.
7. Burkholder K, Bennett BL, McKee SL, Cohen JFW, Xu R, Schwartz MB. Participation in the United States Department of Agriculture's Summer Meal Programs: 2019-2021. Under review.
8. Bennett BL, Cohen JF, Andreyeva T, Esposito J, Burkholder K, Chafouleas SM, Schwartz MB. Predictors of participation in the USDA summer meal programs: An examination of outreach strategies and meal distribution methods during COVID-19. *AJPM Focus*. 2023 Jun 21:100124.
9. Food Research and Action Center. [Hunger Doesn't Take a Vacation: Summer Nutrition Status Report](#). July 2023.
10. Rudd Center for Food Policy and Health. [Connecticut's Summer Meal Program 2019 - 2023](#). Oct. 2023.
11. Lu SV, Harper KM, Ding Y, Everett J, Gross J, Borman R, Medina-Perez K, Pinzini B, Wilson MJ, Gross SM. The Impact of the COVID-19 Pandemic on the Experiences and Operations of Sponsors of the Summer Food Service Program in Maryland, USA: A Multiphase Mixed Methods Study. *Nutrients*. 2023 Mar 27;15(7):1628.
12. Bennett BL, Gans KM, Burkholder K, Esposito J, Warykas SW, Schwartz MB. Distributing Summer Meals during a Pandemic: Challenges and Innovations. *Int J Environ Res Public Health*. 2022 Mar 8;19(6):3167.
13. Bennett BL, McKee SL, Burkholder K, Chafouleas SM, Schwartz MB. USDA's summer meal program during the COVID-19 pandemic: A mixed-methods examination of participants and non-participants in 2021. *J Acad Nutr Diet*. 2023 Jul 22;S2212-2672(23)01283-2.