



BRIGHT CITIES: Anchorage, AK

Anchorage's Toxic-Free Trainings and Nap Mat Exchanges Make Childcare Centers Healthier

The Steps Anchorage took to Create Healthier Childcare Centers

Community and municipal staff trained providers on how to avoid harmful ingredients in household products used in childcare centers — and the training is now part of the continuing education curriculum

A sleeping toddler — beautiful, innocent, peaceful. We want nothing to disturb our babies' sleep, but invisible toxins from nap mats (commonly used in childcare centers) can lead to harm for the developing brain.

But how?

Childcare centers commonly use polyurethane foam mats, some with vinyl covers, to provide a comfortable sleeping surface for naps. But polyurethane foam is often treated with flame retardant chemicals now known to be ineffective and harmful to health¹; and vinyl covers contain neurotoxins called phthalates.

Due to their relatively small size, the same amount of a chemical is likely to be

10 times

more toxic to a child than to an adult.²

Flame retardants (FRs) are also found in many everyday household items, including furniture, electronics, cars, and insulation. FRs leach out from products into dust. This is a major exposure route for babies and young children who spend lots of time playing on the ground and putting their hands in their mouths. FRs are strongly linked to neurodevelopmental delay.³

BRIGHT CITY:
ANCHORAGE, AK

CONCERNS:

- Flame Retardants and Phthalates in Toddlers' Nap Mats

PROJECT OUTPUT:

- "Healthy Children in Toxic-Free Child Care: Getting Started with the Hazardous Handful" Training Developed and Implemented
- 75 Caregivers Received Certificates Towards Child Care Licensing Educational Requirements
- More than 300 Flame-Retardant & Phthalate-Free Nap Mats Provided to 36 Childcare Centers

KIDS IMPACTED:

- Nearly 20,000 Kids Under 5 Live in Anchorage

Healthy Babies Bright Futures' Bright Cities Program works with Cities to Protect Babies' Brain Development



The Bright Cities program gives grants up to \$35,000 to city governments and community-based partners to equitably reduce their community's exposures to neurotoxic chemicals that interfere with all babies' brain development.

Why? 1 in 6 children in America have a neurological disability including autism, IQ loss, learning or behavioral problems, attention deficit/hyperactivity disorder and speech or cognitive delays.³ While toxic chemicals are not the sole cause for lifelong learning and developmental deficits, they are among the most preventable.

Bright Cities works with mayors and city leaders to design the most effective strategies for a city. Benefits to being a Bright City extend beyond reducing neurotoxic exposures. Being a Bright City elicits positive responses from city residents. It provides an opportunity to leverage national funding and set the stage for sustainable equitable change. And it provides a fresh opportunity for cities to ensure that all babies have equitable, just and healthy environments.

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The costs associated with [intellectual disabilities and lost IQ points linked to FRs](#) (in particular, flame retardants known as polybrominated diphenyl ethers or PBDEs) come to \$266 billion a year in the United States.⁴

Phthalates are industrial chemicals that add flexibility and resilience to consumer and building products. About 90% of phthalates are used in vinyl, and phthalates are widely used in many consumer and commercial products. Phthalate plasticizers, which are also neurotoxins, are not chemically bound to vinyl so they can leach, migrate, or evaporate into indoor air and concentrate in dust.

“Simply by removing toxic nap mats and replacing them with ones that are free of flame retardants and phthalates, we greatly reduce exposures to chemicals known to cause harm to children⁵,” said Pamela Miller, Executive Director of [Alaska Community Action on Toxics](#).

The nap mat swap project started as a Bright Cities partnership between the City of Anchorage and the community-based organization Alaska Community Action on Toxics (ACAT). It grew to include multiple community services organizations including [thread Alaska](#), a community-based organization committed to supporting families’ access to quality, affordable child care, and the [Anchorage Health Department](#).

To determine which childcare organizations could participate, the City of Anchorage (who has jurisdiction over municipal childcare providers) surveyed all licensed childcare homes and centers, determining interest and need.



Thirty-six centers were selected to participate in the pilot project (the majority were providers requiring five mats or less). Municipal Child Care Licensing Specialists and thread staff called all program administrators to ensure participation at the training and nap mat exchanges held evenings at the Anchorage Health Department.

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Pam Miller, Executive Director,
Alaska Community Action
on Toxics



The training – “Healthy Children in Toxic-Free Child Care” – was designed to give practical advice about why and how to affordably reduce toxic exposures in childcare facilities. After the training, providers exchanged their existing nap mat for a flame retardant and phthalate-free alternative, the [Community Playthings M65](#) (\$52/mat).

Seventy-five people participated in the initial three training sessions, and 331 flame-retardant and vinyl-free nap mats were provided to 36 child care centers.

The “Healthy Children in Toxic-Free Child Care” training was approved for 2.5 hours of continuing education credits by the Alaska System for Early Education Development. This approval underscores the importance of removing toxins from childcare environments and enables providers to obtain credit for taking steps – including low-cost measures – that make childcare centers safer. thread Alaska is working to have the training recognized by the State of Alaska Child Care Program Office to meet new regulations requiring annual training on health and safety topics. Recognition of this training by state entities sets the stage for the City of Anchorage to emulate this training requirement as part of its municipal childcare programming.

The City of Anchorage plans to expand the project beyond this initial pilot project.

“Because the Anchorage Health Department operates the Child Care Licensing Program, this is an opportunity to make an immediate reduction of harmful chemical exposures and improve the wellbeing of the children we care for,” said Natasha Pineda, Director of the Anchorage Health Department. “We have more than 200 licensed childcare homes and centers providing care to an estimated 10,568 children.”

Anchorage also passed [an ordinance](#) banning four groups of chemical flame retardants from children’s products and upholstered home furniture starting 2020. Anchorage joins California, Hawaii and other [cities and states across the country](#) that have banned flame retardants or specific chemicals commonly used in flame retardants.



“We were delighted to be part of this program! The coordination and planning played a big part in our success. Nap Mat Swap recipients were thrilled at the opportunity to obtain new, safer, and healthier mats for the children entrusted in their care.”

Kathleen M. Lynch, Child Care Licensing Program Manager



PLAYBOOK TO IMPLEMENT TOXIC-FREE CHILD CARE TRAINING & A NAP MAT EXCHANGE

- 1 Convene a Stakeholder Team** including staff from city government, child care licensing, a knowledgeable partner about toxics reduction, and your child care resource and referral agency.

The stakeholder team allowed all project partners to get clear on the project's goals. In Anchorage, the team decided to provide both training and new nap mats, but your community's needs may be different. If your city doesn't have a community-based organization knowledgeable about toxics reduction, contact HBBF staff and check out the Center for Children's Environmental Health' [detailed materials](#).

- 2 Survey Providers** by email, regular mail, or phone to assess the need for training and nap mats.

Survey all licensed and/or informal providers to gauge interest and gather data on how many, what type, and the age of the nap mats in use. Because of limited funding to purchase new nap mats, survey data was used to set eligibility guidelines for nap mat exchange participants.

- 3 Create a Training** that practically and clearly describes how to reduce toxic exposures in a childcare setting.

ACAT developed a locally appropriate training with information about why Arctic people are at risk, children's unique vulnerabilities, and actions providers can take to make child care centers healthier. This presentation is available for use and/or adaptation. The Center for Children's Environmental Health also has an [e-learning course](#) with easy, low cost tips for reducing environmental hazards in child care centers.

- 4 Choose the Healthiest Nap Mat** to purchase, then dispose of old mats.

Avoid nap mats with flame retardants, phthalates, vinyl, and antimicrobial, and/or water-resistant treatments. ACAT's presentation has information about nap mat options with non-toxic components and size and storage considerations. Current healthy choices are the Community Playthings M65 Rest Mats (~\$52/mat) and the Naturepedic Rest Pad (contact manufacturer for institutional pricing). As of now, there is no viable way to recycle or reuse the old mats; they must be disposed of in a landfill.

- 5 Analyze Survey Data** from step 2 and tailor your presentation to selected participants.

Providers "most in need" and without employer sponsorship were selected to participate in the training and nap mat exchange. Attending to multiple logistical details was critical, including storage of new mats (and sheets), participant training registration (a requirement to participate in the nap mat exchange), and the exchange itself (keeping track of how many old mats were exchanged for new ones). The training and nap mat swap were scheduled on the same evening, but could be done on different days.

- 6 Expand the Program** with clear goals and expectations.

Project goals include expanding the training and nap mat exchange to all providers in Anchorage where there are 44 childcare centers and 128 home-based childcare facilities. Achieving this goal will require moving forward incrementally, with multiple partners and funders.

Secondly, thread Alaska is working to have the training recognized by the State of Alaska Child Care Program Office as meeting new regulations requiring annual training on health and safety topics. And, the project team will offer training virtually for interested partners across the state.

Have questions about Anchorage's actions?

Contact Pamela Miller, Executive Director of Alaska Community Action on Toxics (ACAT) in Anchorage at pamela@akaction.org.

Curious about funding and/or informational resources?

Contact Kyra Naumoff Shields, Bright Cities Program Director, at knaumoff@hbbf.org



The Bright Cities program provides grant funding for US cities and community based partner organizations to reduce exposures — in pregnant women and children under 2 years — to the nine neurotoxins with the strongest associations to developmental delay.³ These neurotoxins are arsenic, flame retardants, lead, mercury, combustion byproducts called PAHs, banned industrial chemicals PCBs, organophosphate pesticides, a rocket fuel component and fertilizer contaminant called perchlorate, and plastic additives called phthalates.

ENDNOTES

- 1 Chen A, Yolton K, Rauch SA, Webster GM, Hornung R, Sjodin A et al. Prenatal polybrominated diphenyl ether exposures and neurodevelopment in U.S. children through 5 years of age: The HOME Study. *Environ Health Perspect.* 2014; 122(8):856-862
- 2 National Research Council, Pesticides in the Diets of Infants and Children, National Academy Press, Washington, D.C., 1993, pp. 4, 23–24, 325–326.
- 3 Bennett D, Bellinger DC, Birnbaum LS, et al. Project TENDR: Targeting Environmental Neuro-Developmental Risks The TENDR Consensus Statement. *Environ Health Perspect.* 2016; 124(7):A118-A122.
- 4 Attina TM, Hauser R, Sathyanarayana S, et al. Exposure to endocrine-disrupting chemicals in the USA: a population-based disease burden and cost analysis. *Lancet Diabetes Endocrinol.* 2016;4(12):996-1003.
- 5 Stubbings et al. Exposure to brominated and organophosphate ester flame retardants in U.S. childcare environments: Effect of removal of flame-retarded nap mats on indoor levels. *Environ Pollut.* 2018; 238:1056-1068.