

Intersection of Early Childhood & Environmental Impacts

PLAYBOOK

2024



NLC NATIONAL
LEAGUE
OF CITIES

Healthy
Babies  Bright
Futures

Playbook for City Projects and Funding at the Intersection of Early Childhood & Environmental Impacts

We envision a world where all children – regardless of their zip code or genetic code – thrive in their communities.

We envision sending kids outside to play without worrying about air quality or heat.

We envision mealtimes with fresh and healthy fruits and vegetables, grown in soil free from lead contamination.

And we envision our cities and institutions purchasing products without harmful chemicals, reducing carbon emissions, and producing less waste to safeguard the health of our children and our communities.

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ABOUT THIS PLAYBOOK

WHAT CAN BE IMPLEMENTED IN YOUR COMMUNITY TO SUPPORT A HEALTHY CHILDHOOD FOR ALL?

There are lots of wonderful initiatives that support kids. This playbook highlights on-the-ground programs in cities across the country that benefit both children’s health—including their neurodevelopment—and environmental health. Most of these projects were initiated by a staff of a community-based organization or a city, bolstered by grant funding, and grown through community support.

We focus on four actions with co-benefits for children’s health and environmental health:

- ✓ Clean the Air
- ✓ Support Safe Foods and Soils
- ✓ Create Healthier Homes
- ✓ Incentivize Sustainable Purchasing

The President’s Task Force on Environmental Health Risks and Safety Risks spotlights climate change and chemical exposures as two of its top four priority areas in its [2024-2028 priority activities roadmap for children](#). Focusing on strategies that address both children’s health and climate change has measurable impacts. For example, the Regional Greenhouse Gas Initiative, the United States’ first regional market-based regulatory program to reduce greenhouse gas emissions from the electric power sector, has reduced annual power sector emissions by 50% since 2005 and avoided costs ranging from \$191 to \$350 million related to harmful child health outcomes.

The Investing in America agenda unlocks billions of dollars in opportunity for states, territories, Tribes, and local governments to make a once-in-a-generation investment in infrastructure, clean energy, and climate resilience – actions that support healthy early childhood development.

WHAT WILL YOU FIND IN THIS PLAYBOOK?

- Project blueprints from communities of all sizes across the US
- Checklist of three steps to right-size a project for your community
- Recommendations for project funding

WHAT IS THE ROLE OF CITIES + COMMUNITY-BASED ORGANIZATIONS?

Cities and local community-based organizations have a unique ability to implement change more quickly and decisively than state or national governments—making them vital leaders in the work to protect babies’ developing brains.

And, cities, towns, and villages across America are taking action to address and mitigate the current and future impacts of climate change on their communities beginning in the earliest years. Early childhood development happens well beyond the realms of childcare and formal educational settings. To equitably meet the needs of all residents, municipal leaders are prioritizing investments in infrastructure and services to address climate and environmental injustices with immediate benefits for maternal and child health and well-being.

Getting Started >>> First, read or scan the examples highlighted in each action area for inspiration. Next, review the checklist of primary action steps to right-size a project for your community. Finally, identify federal funding opportunities relevant to your project and make time to apply. Free technical support is available to support your grant submission.

OUR FOUR KEY ACTIONS

1. CLEAN THE AIR

Air pollutants are a well-documented source of harm. Air pollutants such as polycyclic aromatic hydrocarbons, nitrogen dioxide, and black carbon can disrupt brain development in utero, and exposures during pregnancy are strongly associated with premature birth and low birth weight.

When children are impacted by air pollution during the early stages of their development, they are at greater risk for respiratory, gastrointestinal, and neurological problems. As adults, they have a greater chance of developing physical and mental health issues and are at higher risk of premature death.

The majority of these toxic air pollutants are produced by people, in a process linked with the growing impact of global climate change.



Dr. Jenni Vanos talks about how desert-specific plants could reduce air pollutant concentrations in spaces used by kids through the dense planting—otherwise known as vegetative barriers—that captures pollutants with its leaves. [Read more here.](#)

City governments can improve air quality for residents by developing projects to help remove existing pollutants from the air and prevent further pollution. Your city could:

✓ Plant trees and vegetative barriers near schools, childcare centers, and other places children spend time and develop parks, green roofs, green walls, and the like to improve air quality and provide cooling and shade.

Charleston, South Carolina | [Increases tree planting for public places and private property](#)

Petaluma, California [Youth Plant Trees to Reduce Air Toxics](#)

Pine Bluff, Arkansas [Planted Trees and Turned City Land into Gardens to Support Babies' Health](#)

State College, Pennsylvania [Plants Trees to Reduce Air Toxics as Part of Sustainable Park Redesign](#)

Tempe, Arizona [Measures the Ability of Trees and Hedges to Reduce Air Pollution—and Shares Results with Residents](#)

✓ Electrify city fleets — and encourage residents to make the transition to electric vehicles — to significantly reduce air pollutants and greenhouse gas emissions.

East Hampton, Massachusetts [Offered an Employee Benefit for EV Adoption and Transition of all City-Owned Vehicles to Electric Vehicles](#)

✓ Transition government buildings to renewable energy sources to set a strong precedent for residents.

Burlington, Vermont [Became the First City in the Country to be Completely Powered by Renewables](#)

Dearborn, Michigan [Commits to 100% Renewable Energy at Municipal Buildings](#)

2. SUPPORT SAFE FOOD & SOILS

Chemicals found in baby food – arsenic, lead, cadmium, and mercury – are neurotoxins that can permanently alter the developing brain, erode IQ, and cause behavioral problems. Even in the trace amounts found in food, the impacts add up with each meal or snack a baby eats. Their presence in baby food raises unique concerns because babies are more sensitive to the toxic impacts.

These four harmful metals are found in all food – not just baby food. They occur naturally or from pollution in the environment. Crops absorb them from soil and water, and they are even found in organic food.

In many cities, for example, more than half of all food gardens have high lead levels in soil that can be unsafe for gardeners and families who eat the produce. Lead harms a child's developing brain and increases lifetime cancer risk. Lead is higher in garden soil in urban areas, near roads, and in older homes that have lead paint. But even in rural areas, lead can be naturally present at high levels.



South Portland, Maine, residents in front of their new resilient yard. South Portland's Sustainability Department launched a 100 Resilient Yards project to provide technical expertise and resources to transform 100 residential and commercial spaces into resilient, organic landscapes. [See photos and read about the process here.](#)

City governments can support safe foods and soils for residents by developing projects that bypass soil pollutants and promote healthy food production and consumption. Locally grown food also supports the local economy and benefits the environment by reducing transportation needs and helps maintain farmland and green and/or open space in your community. **Your city could:**

🥕 Determine if underused properties can transition to a [Community Food Farm](#).

Salem, Massachusetts [Launched a “Food Farm” to Provide Thousands of Pounds of Organically Grown Food to Local Families](#)

🥕 Convene community [“Food Equity Advisors”](#) to advise on neighborhood food solutions.

Salt Lake City, Utah [Initiated a Resident Food Equity Advisor Program to Build Community-Centered Solutions](#)

🥕 [Bundle pre + postnatal services](#) with organic produce delivery

Champaign, Illinois [Developed a Mobile Food Market to Distribute Organic produce, Baby food, Diapers, and Formula](#)

🥕 Transition park management strategies to chemical-free methods. Tailor these superb resources – a [“Pesticide Free”](#) template, an [Organic Lawn Care Guide](#), and/or a [“100 Resilient Yards”](#) Campaign – for use in your community.

Boulder, Colorado [Residents Help Transition Neighborhood Spaces to Organic Turf Maintenance](#)

Providence, Rhode Island [Motivated Residents to Stop Pesticide Use – and Quantified the Impact](#)

South Portland, Maine [Builds Resiliency into its Yards](#). To replicate this project, [check out this story map](#) with details on the project, including planning tips, do's and don'ts, and before and after photos.

3. CREATE HEALTHIER HOMES

Scientific evidence links health outcomes such as lead poisoning, asthma, and other poor health outcomes to substandard housing. The [U.S. Census Bureau](#) estimates that more than 5.9 million housing units are substandard with multiple or severe health hazards and that 39 million housing units nationwide contain at least one health hazard.

Some of these hazards may be seen (mold, dust, and pests; deteriorated lead paint or pipes) or unseen (electrical and physical hazards, radon, carbon monoxide, and other poisons and carcinogens) and can cause illness, injury, and even death.


And, it's not just older homes that contain hazards. Even newer expensive homes may have hazards lurking within.

Housing conditions can and should support good health. A healthy home is dry, clean, safe, ventilated, free of pests and contaminants, well maintained, and thermally comfortable. Creating healthier housing promotes the healthy growth and development of children and has the potential to save billions in health care costs.




One Voice, a non-profit organization based in Jackson, MS, seeks to magnify voices of traditionally silenced communities in the South. One Voice partnered with Jacob Ladders Center for Learning I and II, a local daycare center; one of the center's youngsters is shown here. One Voice shared the [Eco-Healthy Childcare's Environmental Health Checklist](#) with local daycare providers to promote healthier brain development and healthier environments.

City governments have many avenues to support healthier homes for all residents where actions that support good health also reduce a home's environmental footprint. Your city could:

 Reduce lead exposures through education and/or remediation projects.

Grand Rapids, Michigan [Connects its Lead Paint Hazard Process to Residential Rental Property Program](#)

Flint, Michigan [Moms Learn about Lead Remediation—and Enjoy Well-Deserved Pampering](#) and [Engages Residents in Lead Service Line Replacement](#)

 Provide toxic-free childcare training and nap mat exchanges.

Anchorage, Alaska [Provides 6 simple steps to create a toxic-free environment for day care centers – including training tips for staff members and purchasing advice](#)

Jackson, Mississippi [Shares an EcoHealthy Childcare Checklist with Caregivers](#)

4. INCENTIVIZE SUSTAINABLE PROCUREMENT

How are purchasing decisions tied to our children's and our city's health? Purchasing – or procurement – encompasses sourcing, obtaining, and paying for goods and services. Along supply chains, material extraction and production can emit greenhouse gasses, waste, and other pollution. [One estimate by Carnegie Mellon](#) suggests that 90% of impacts on air, soil, and water and 80% of climate impacts are from the supply chain.


Bottom line – procurement is not neutral. It can determine the health and safety of the environment and our communities.

When municipalities purchase products that don't contain harmful chemicals, reduce carbon emissions, and produce less waste, they are helping to protect health and the environment. Sustainable purchasing can be a catalyst for large-scale change, given the tremendous purchasing power of state and local governments – public procurement represents on average 13% to 20% of US GDP. Sustainable procurement has the potential to move markets, shifting production to safer, cleaner products.


[Procurement is an important, innovative tool](#) for achieving an equitable, healthy, and climate-friendly future. Sustainable purchasing by local governments, universities, hospitals, and other institutions is crucial to the health of humans and the planet. Together, they spend about \$2.5 trillion every year on procurement – municipalities alone spend nearly \$1.6 trillion.

Cities can [tailor available resources](#), created by the Ecology Center, to create safer communities through the purchase of more environmentally-friendly products.

City governments have many avenues to harness the power of sustainable purchasing. Your city could:

 Survey purchasing agents and city department heads using [standard questions and easy-to-update data sheets](#).

Providence, Rhode Island [Pursues Purchasing of Healthier Furniture and Janitorial Supplies](#)

 Award a few thousand dollars to pilot a new product or process.

Duluth, Minnesota [Shares Levers for Healthier City Purchasing](#)

 Use our [Model Sustainable Procurement Policy](#) and make it your own

Lansing, Michigan [Developed Equitable, Nontoxic, and Climate-Friendly Procurement Tools for Use Locally and Beyond](#)

📖 [Dig into](#) guides, [product specifications](#), criteria, and [model policies](#) to help your purchasing team create and implement a plan for your community.



This [modular powerpoint presentation](#) was created by the Ecology Center to help sustainability and purchasing staff make the case for sustainable purchasing to decision-makers (such as mayors, councils, and administrators). The presentation provides critical information about sustainable purchasing and allows users to pick and choose which arguments are most salient for their audience or most relevant to their program.

HOW TO IMPLEMENT A SIMILAR PROJECT IN YOUR COMMUNITY

1. Assess Residents' Needs – Don't Assume, Ask.

Foster opportunities to elevate community voices in the decision-making process. Municipal officials can hold community dialogues to learn more about what families with young children need and to explore three critical questions "Who's Burdened? Who's Benefiting? And Who's Missing?"

"Since the [Champaign-Urbana City Farms Initiative](#) took shape, I have been so pleased with the positive response received from both the public and private sectors. Many community partners collaboratively joined together in a meaningful and reciprocal collaboration. This is a promising initiative for our community!" – Mayor Deb Feinen of Champaign, Illinois

2. Define Your Project Priorities & Outcome Metrics.

Empower motivated staff and residents in your community who want to take action with strategic networking, regular check-ins, and scaffolded connections to existing city priorities. Consider prioritizing projects with an outcome that fosters sustainability – **and social connectivity**.

"Our volunteers showed up to build resilient yards, then they showed up for more, and then they just continued to show up for us again and again."

– Julie Rosenbach, City of South Portland's Sustainability Director and [100 Resilient Yards](#) Co-Creator

"As a homeowner, this experience was fantastic! We learned so much from the technical analysis, then the volunteers pitched in to turn what would have been a day-long project into something we completed together in an hour!"

– David Reidmiller, Homeowner and 100 Resilient Yards Participant

3. Identify Application Funding Opportunities and Apply.

There are a number of funding opportunities available to help local governments address environmental impacts and build community resilience. Navigating available federal funding streams can be daunting but these free resources, including technical assistance, can help:

Where to Begin

✓ [Fact Sheet: Getting Started With Key Federal Opportunities](#)

✓ [Investing in America Technical Assistance Guide](#)

Ongoing Supports

✓ [Environmental Protection Network \(EPN\)](#) - EPN's pro bono capacity-building technical assistance program provides assistance to communities; NGOs; and state, local, and tribal agencies disproportionately impacted by environmental and health issues.

✓ [Local Infrastructure Hub](#) - a national program to ensure that all cities and towns can access federal infrastructure funding to drive local recovery, improve communities, and deliver results for residents.

Current Opportunities

✓ [EPA's Community Change Grants](#) - EPA is now accepting applications on a rolling basis for \$2 billion in Inflation Reduction Act funding available to support community-driven projects that build capacity for communities to tackle environmental

and climate justice challenges, strengthen their climate resilience, and advance clean energy.

✓ [EPA's Environmental Justice Thriving Communities Technical Assistance Centers Program](#) (EJ TCTACs) - These centers provide training and other assistance to build capacity for navigating federal grant application systems, developing strong grant proposals, and effectively managing grant funding. The National League of Cities is providing assistance as part of the TCTAC for EPA Region 8 (serving CO, MT, ND, SD, UT, and WY). EJ TCTACs are now accepting technical assistance requests from all regions.

✓ [Local Government Energy Program](#) (LGEP) - LGEP supports federally recognized Indian Tribes and local governments implement clean energy projects and programs that provide direct community benefits, spark additional investments, meet community-identified priorities, and build local capacity.

✓ [DOE Vehicle Technologies Office Technology Integration Program](#) - In February 2024, the Department of Energy (DOE) announced \$15 million in new funding for projects that will advance deployment of technologies critical to achieving net-zero greenhouse gas emissions in the transportation sector. Eligible projects include those related to clean cities outreach, engagement, and technical assistance; training on zero emission vehicle and infrastructure technologies for critical emergency response workers; and clean transportation demonstration and deployment.

"One of the most rewarding aspects of this project was sharing knowledge and resources about lead prevention and healthier eating with parents in our community. Parents were so appreciative about getting information that empowered them to provide a healthier life for their kids. Participation in programs like this is an invaluable asset, and I encourage all cities to apply for grants." – Former Mayor Marita Garrett | Wilksburg, Pennsylvania

RESOURCES

Considerations for Leaders: Intersection of Early Childhood and Environmental Impacts (National League of Cities, 2023), available at:

<https://www.nlc.org/resource/considerations-for-leaders-intersection-of-early-childhood-and-environmental-impacts/>

Healthy Environment for a Healthy Start: Promoting Environmental Justice for Equitable Birth Outcomes (March of Dimes, 2024), available at

https://www.marchofdimes.org/sites/default/files/2024-02/MBAN_Environmental_Justice_Report_v7_FINAL.pdf

Perera F, Cooley D, Berberian A, Mills D, Kinney P. Co-Benefits to Children's Health of the U.S. Regional Greenhouse Gas Initiative. *Environ Health Perspect*. 2020 Jul;128(7):77006. doi: 10.1289/EHP6706

The Regional Greenhouse Gas Initiative: An Initiative of the Eastern States of the US (Regional Greenhouse Gas Initiative, 2024), available at

https://www.rggi.org/sites/default/files/Uploads/Fact%20Sheets/RGGI_101_Factsheet.pdf

Transportation Electrification 101: A Guide for Local Leaders (National League of Cities, 2021), available at <https://www.nlc.org/resource/fact-sheet-transportation-electrification-101>

BRIGHT CITIES CASE STUDIES

City	State	Action
Anchorage	AK	Anchorage's Toxic-Free Trainings and Nap Mat Exchanges Make Childcare Centers Healthier
Champaign	IL	Bringing Healthy Food & Prenatal Services to Families in Champaign, IL
Cleveland	OH	Working to Ensure Healthier Births in Cleveland
Columbia	SC	How Columbia's Three-Part Sustainability Strategy Protects Babies' Brain Development
Jackson	MS	Jackson Works with Residents to Mitigate Lead and to Transition to Baby-Safe Cleaners
Lynn	MA	How Lynn, MA Expanded a Farmers Market to Support Vulnerable Residents
Missoula	MT	Missoula Creates Healthier Turf and Cleaner Air for Toddlers
Norman	OK	Norman, OK Supports Children and Families With Community Access Pop-up Spots
Phoenix	AZ	Phoenix Plants Hedges to Reduce Kids' Exposure to Pollution
Providence	RI	How Providence Quantified the Impact of Their Toxic Reduction Strategies
Salem	MA	How Salem, MA Launched a "Food Farm" to Provide Thousands of Pounds of Organically Grown Food to Local Families
Salt Lake City	UT	How Salt Lake City Increased Equitable Access to Healthier Foods for Kids
Salt Lake City	UT	Salt Lake City Works Towards Pesticide-Free to Make Parks and Homes Safer
San Francisco	CA	San Francisco Replaces Toxic Nap Mats for City's Most Vulnerable Young Residents
Scranton	PA	Scranton, PA Makes City Parks a COVID-Safe Destination
Wilkinsburg	PA	Community Advocates in Wilkinsburg, PA, Ensure Every Baby Reaches Their Full Potential