

# Choose Safe Places for Early Care and Education (CSPECE)

CHE-WA  
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Agency for Toxic Substances and Disease Registry  
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# Objectives

- ❑ Describe ATSDR's mandate and how ATSDR became involved with child care siting
- ❑ Understand why environmental exposures at child care centers are a concern
- ❑ Describe the Choose Safe Places for Early Care and Education (CSPECE) Guidelines ATSDR created to protect children's health
- ❑ Recognize opportunities to help protect children's health by ensuring the safe siting of child care centers

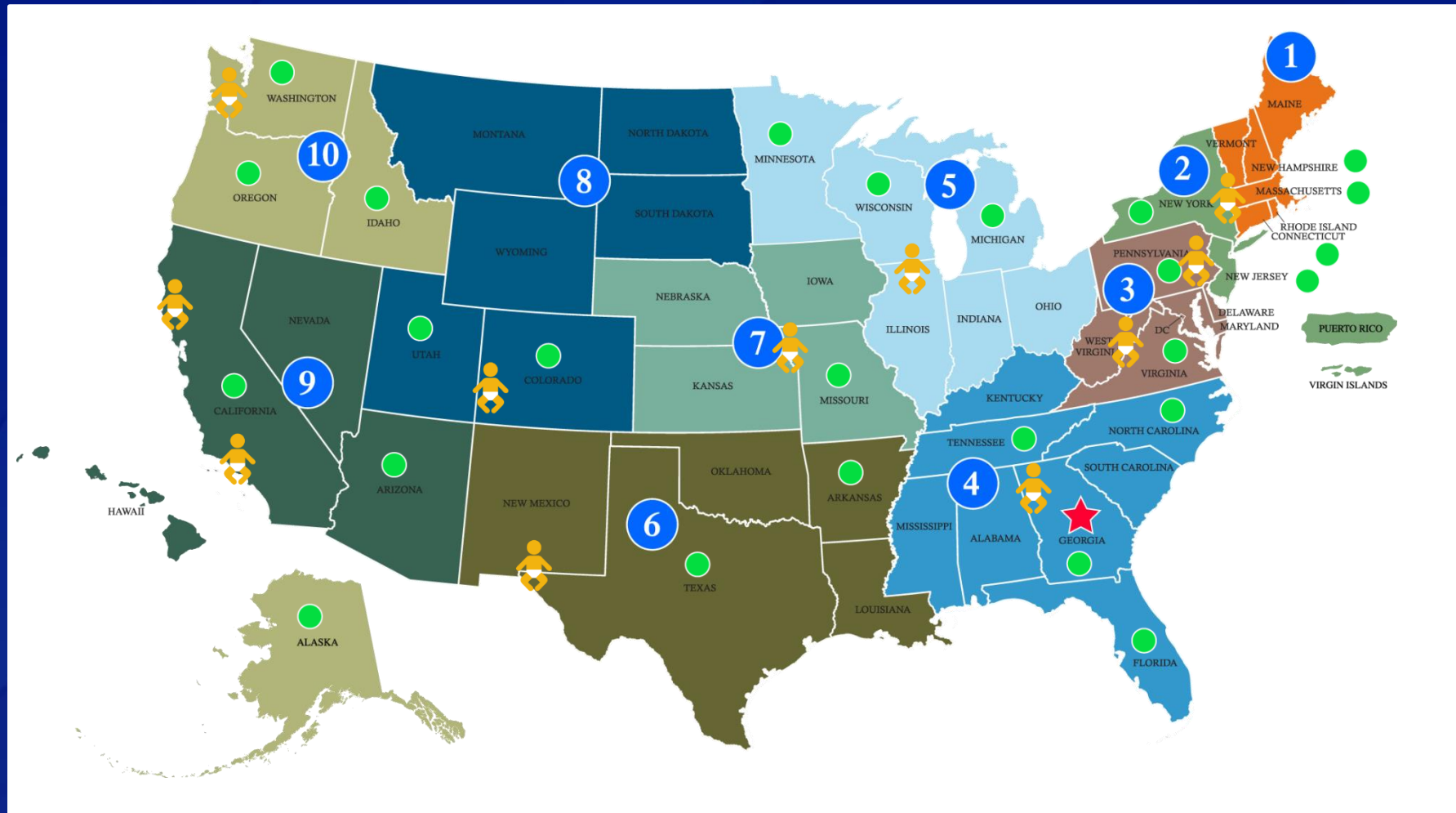
## The 10 Essential Public Health Services



# **The Agency for Toxic Substances and Disease Registry (ATSDR)**

**The most trusted agency protecting American communities from environmental health threats through application of state-of-the-art science.**

# ATSDR: Programs and Staff



● ATSDR Regional Offices

● States Funded by Cooperative Agreement

● Pediatric Environmental Health Specialty Units (PEHSUs)

# Engagement

- Involved with Early Care and Education (ECE) siting out of our traditional site work
- Worked on many sites where ECE centers were found on or adjacent to incompatible sites, and children were exposed to environmental contaminants
- Developing an approach to prevent environmental exposures at ECE locations

# Initial Foci

- ✦ Facilities where ECE programs operate
  - ✦ Includes child care centers, daycares, preschools, nursery schools, and Head Start
  - ✦ Includes for-profit, nonprofit, and publicly funded
- ✦ Option to include Homebased or “family” programs



Children with bubbles from author's personal photos

# ATSDR's Safe Siting Mission

Ensure that ECE programs are located where chemical hazards have been considered, addressed, and ruled out or mitigated to best protect children's health.



Children playing - CDC public photo library



# Child Care Enrollment By the Numbers

- 2014 Child Care Licensing Study <sup>1</sup>
  - About 110,000 licensed child care centers in the US
  - 9.8 million licensed child care slots

<sup>1</sup> 2014 Child Care Licensing Study prepared by the National Association for Regulatory Administration.



Photo from CDC public photo library

# Why be concerned about location?

- Before 2015, most ECE programs were NOT conducting a site history, environmental site assessment, or environmental audit to obtain a license
- In 2015, the HHS Administration for Children and Families (ACF) required minimum health and safety standards for early care and education

# Kiddie Kollege – NJ

Child Care Center located in former mercury thermometer factory



Photo of Kiddie Kollege from [http://www.nytimes.com/2006/08/19/nyregion/19mercury.html?\\_r=0](http://www.nytimes.com/2006/08/19/nyregion/19mercury.html?_r=0)

# Child Care Center X – Wisconsin

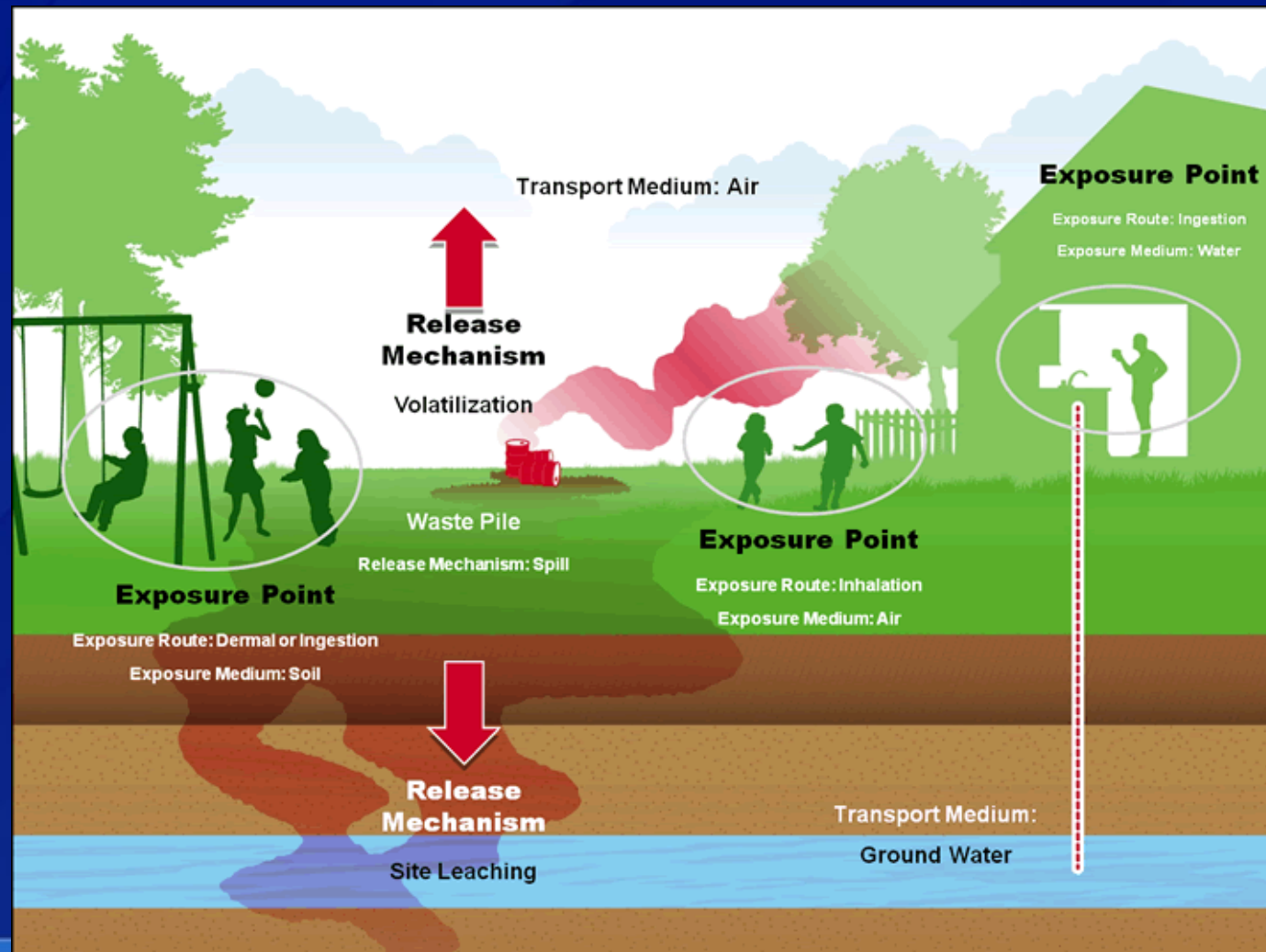
- ❑ Child care center was located below a gasoline station's store
- ❑ Child care workers complained of strong gasoline smell
- ❑ Indoor air samples identified
  - Benzene concentrations consistent with increased cancer risk
  - Possibility of fire or explosion hazard
- ❑ ATSDR recommended the child care center relocate

# Example Site in Washington

- ECE located adjacent to former dry cleaning facility (closed for a decade)
- Groundwater contaminated with tetrachloroethylene
- Testing and evaluation of indoor air and soil gas found that current levels were not expected to cause harmful health effects
- Remediating technologies installed; follow-up revealed no expectation of harmful health effects

# Types of Environmental Exposures

Routes of Exposure to Chemicals Found in Soil, Water, Outdoor Air, and Indoor Air



# New Jersey's Experience

- ❑ Cooperative Agreement Partner
- ❑ Regulatory program based on indoor air exposures
- ❑ 2016: 671/3,939 centers (17%) had actual or potential indoor air exposure concerns prompting investigation
- ❑ Since 2007, 2.2% of NJ child care centers needed action to prevent or mitigate actual or potential exposures
- ❑ If NJ's experience was representative of the US, about 180,000 children would be in child care centers with potentially harmful indoor air exposures.

# Connecticut's Experience

- ❑ Cooperative Agreement Partner
- ❑ Developed a non-regulatory program
- ❑ Evaluates exposures in soil, indoor air, water
- ❑ Day Care SAFER

**S**creening  
**A**ssessment  
**F**or  
**E**nvironmental  
**R**isks





# SAFER

## □ **Components:**

- Address Check
- Property History
- Inspector referral

□ **If a concern → Referral to health department**

□ **Since 2007, 46 sites referred. 9 have had potential environmental problems.**

# ATSDR Safe Siting Objectives

- ✦ Development of **guidance manual** for safe siting for early care and education programs
- ✦ Inclusion of safe siting considerations in **licensing at state level**
- ✦ Inclusion of safe siting considerations in **federally-supported early care and education programs**
- ✦ Implementation of safe siting considerations by **accreditation organizations and large-scale operators**

# What Safe Siting Includes

The thoughtful analysis of four key site elements:

- ✦ Former uses of the site that might have left harmful substances
- ✦ Migration of harmful substances onto the site from other sites, nearby infrastructure or activities
- ✦ Presence of naturally occurring harmful substances
- ✦ Access to safe drinking water

# How to Build a Safe Siting Program

Some elements of a successful program include:

- ✦ Building partnerships
- ✦ Identifying problematic sites
- ✦ Following up on problematic sites
- ✦ Providing education, outreach, and awareness

# Guidance Manual Contents

- ❑ Describes the problem and background information
- ❑ Defines what Safe Siting includes
- ❑ Explains the elements of ensuring sites are safe
- ❑ Describes how to build a safe siting program
- ❑ Present program tools

# Not Included

- ❑ Noise
- ❑ Maintenance issues (mold, moisture, pesticide use)
- ❑ Natural disasters
- ❑ Artificial Turf
- ❑ Pressure Treated Wood
- ❑ Sun Exposure
- ❑ High Volume Roadways
- ❑ Physical Hazards (pedestrian safety, bodies of water)

# Former Uses of the Site

- ❑ Risk – contaminants from past uses may still be present
- ❑ Guidance Manual Contents
  - Provides examples of past uses that can leave behind environmental contaminants
  - Describes actions that can help identify sites which may have contamination from past use



Brownfield site, MA – soil and groundwater contaminants from author's personal photo



Former Mill, CT – asbestos, mercury and metals concerns from author's personal photo

# Nearby Sites

- ❑ Risk - Nearby sites can create exposures to contaminants in outdoor air, indoor air (vapor intrusion) or soil
- ❑ Guidance Manual Contents
  - Provides examples of types of nearby sites that may be a concern
  - Describes actions that help identify nearby sites of concern



Pesticides being sprayed - CDC



Nail Salon - CDC

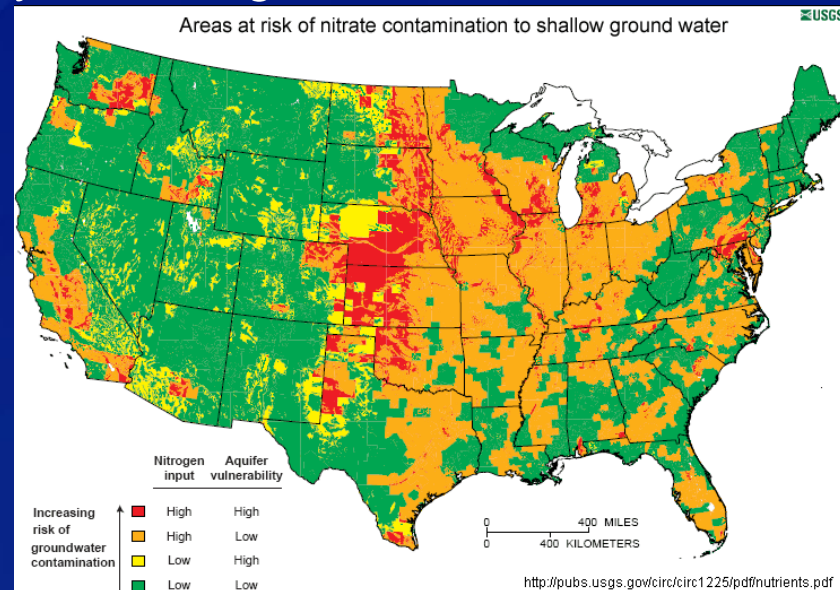


Inside of a dry cleaning business - CDC



# Naturally Occurring Contamination

- ❑ Risk - Contamination can occur from substances already in the environment
- ❑ Guidance Manual Contents
  - Provides examples of naturally occurring contamination
  - Describes actions that help identify sites which may have naturally occurring contamination



USGS map of nitrate contamination  
<http://water.usgs.gov/edu/nitrogen.html>

# Access to Safe Drinking Water

- ❑ Risk - Contamination in drinking water can come from many different sources
- ❑ Guidance Manual Contents
  - Defines the different types of drinking water systems which ECE may be using
  - Describes actions for helping to ensure that each type of drinking water system is safe

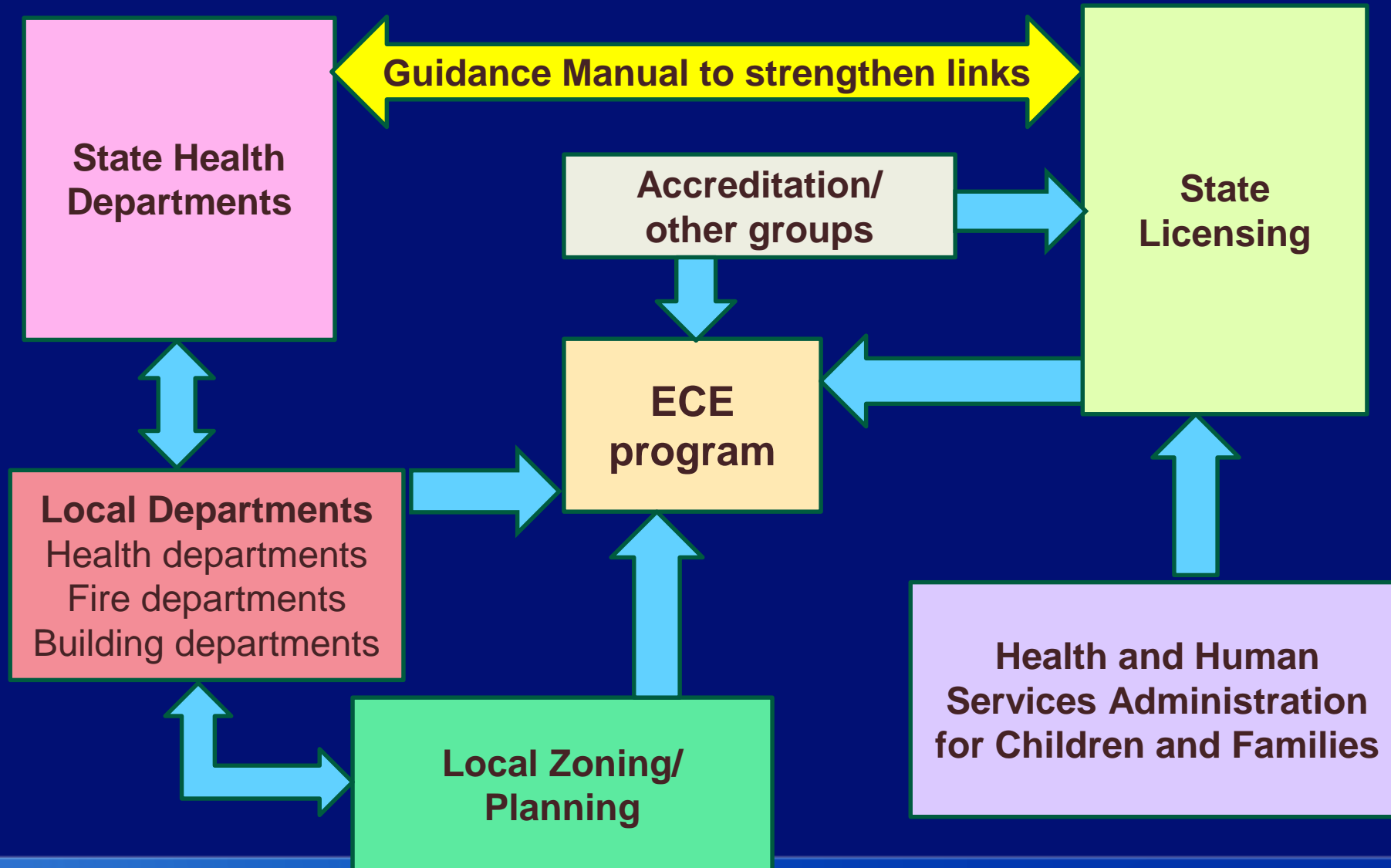


child drinking water – from CDC public photo library

# How to Build a Safe Siting Program

- Program descriptions
  - Generic program description
  - Connecticut's non-regulatory program
  - New Jersey's and New York's regulatory programs
- Elements of a successful program include:
  - Building partnerships
  - Identifying problematic sites
  - Following up on problematic sites
  - Providing education, outreach, and awareness

# Influences on Early Care and Education Programs



# Future Cooperative Agreement Safe Siting Strategies and Activities

- Assess current safe siting landscape
- Develop partnerships with key stakeholders
- Select policy and/or practice approaches to address safe siting for prospective ECE centers
- Implement and evaluate chosen approaches

# Evaluation of Safe Siting Activities

- Estimate number of children protected from harmful exposures
- Estimate disease burden prevented as data allows
- Capture information in ATSDR's Site Impact Assessment Database

# Helpful Resources

- **ACF – Data Explorer and State Profile**
  - ✦ **<https://childcareta.acf.hhs.gov/data#tab-ece-state-profiles>**
- **ACF - Caring for Our Children Basics: Health and Safety Foundations for Early Care and Education**
  - ✦ **<http://www.acf.hhs.gov/eec/caring-for-our-children-basics>**

# Summary

- Harmful environmental exposures to children and staff in ECE programs are preventable with safe siting considerations
- Even with few resources safe siting programs may have positive impacts
- ATSDR is creating a guidance manual to help states engage and including safe siting in the new cooperative agreement



# Thank you

**For more information please contact Agency for Toxic Substances and Disease Registry**

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.