

TOWARDS HEALTHY SCHOOLS: *REDUCING RISKS TO CHILDREN*

Federal Interagency Council on Indoor Air Quality

Webinar

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by

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Healthy Schools Network



Towards Healthy Schools

*Reducing
Risks to
Children*



4th edition national report

Healthy Children/Healthy Schools

Schools are not just little offices.

Children are not just little adults.

There are more schools than zip codes.

Overview

Risks to Children's Health

Federal Outlook: Children and Schools

State of the States

Towards Healthy Schools: Reducing Risks to Children

4th triennial state-of-the-states report, August 2016

Key Needs

- *Federal inter-agency coordinated plan*
- *Resourced, active federal programs on indoor environments and children's environmental health*
- *Updated EPA publications on indoor air & health*
- *News research on children's exposures at schools*

Risks to Children's Health at School

Environmental health (EH) hazards can affect children more than adults

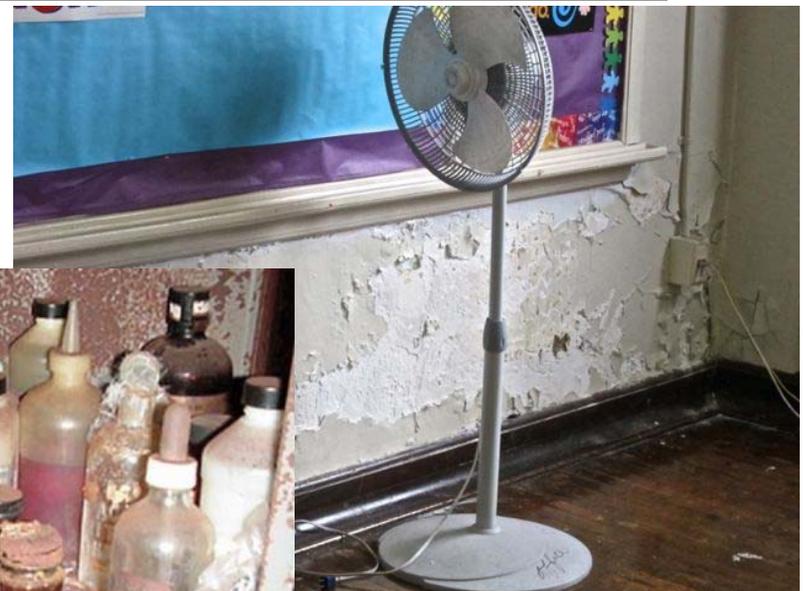
Common EH risks include:

- Indoor Air Quality (IAQ) problems, mold/moisture, pests and pesticides, radon, drinking water quality, excessive noise, PCBs, asthma/allergy triggers, lead, asbestos, chemical mismanagement

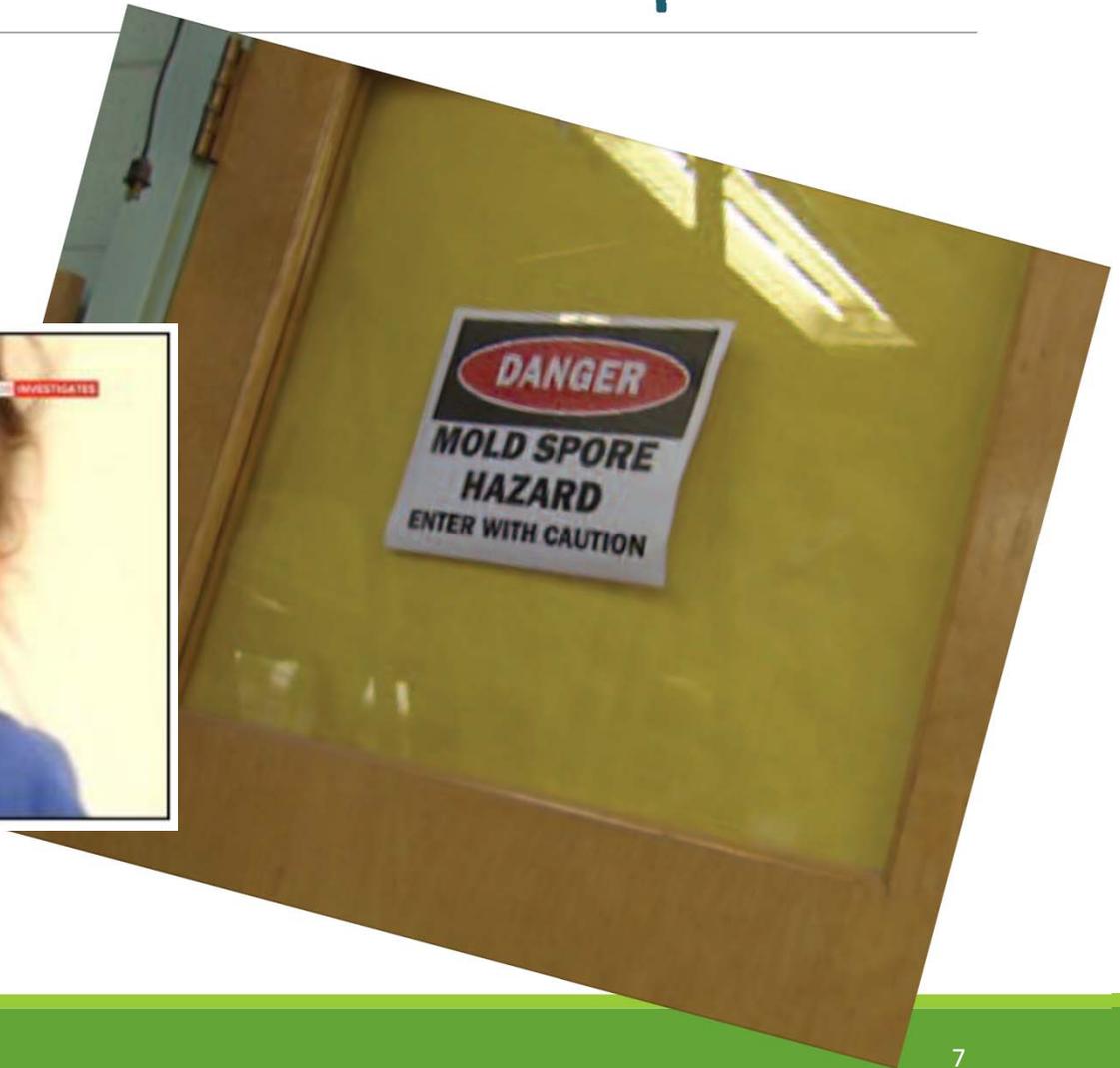
Average age of school buildings: 50+ years

- Deferred and neglected maintenance can be problems as well as release legacy toxics such as lead in paint, PCBs in caulk, and asbestos in building materials
- Renovation/expansion projects of existing, occupied schools can create new contaminants, and new dangerous exposures to children and other occupants

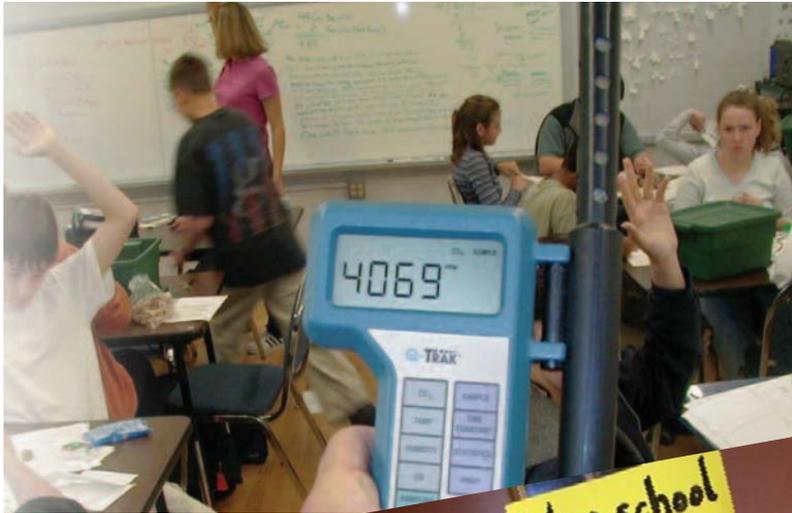
Old Buildings & Legacy Toxics



Indoor Air Pollution: dampness



Poor Maintenance



Drinking Water



Climate Change & Resiliency



Preventing Environmental Health Risks to Children

Selected Federal Actions

1995 EPA kicks off *IAQ Tools For Schools* voluntary guidance and grants on Indoor Air

1997 Executive Order *Protection of Children from Environmental Health Risks and Safety Risks (EO 13045)*; President's Task Force

Federal agencies fund children's EH research, set up other programs and grants (CDC, EPA)

CDC and EPA co-designate regional PEHSUs

EPA and NIEHS establish *Children's Research Centers*

Preventing Risks

Selected Federal Policies

2001 - \$1.2B appropriated for public school health and safety repairs

2002 - Healthy High Performance Schools Act (NCLB)

2007- EISA (2007) Healthy Schools provisions authorized EPA to develop new guidelines and award grants to states to address school environments

2009 - ARRA allows states to allocate \$5B for school facilities

2012 - EPA issues new guidelines and grants to five states; state grant reports lead to updated guidelines for states (2015)

- New federal Asthma Strategy, but EPA schools and child health programs and CDC's asthma program budgets cut
- Guidelines did not address how local agencies could use PEHSUs

2015 – ESSA Title IV: states can address chronic diseases such as asthma through environmental management

Healthy People 2020

As of 2015, schools less active on key environment goals, resulting in increased risks to children due to lack of action on

- IAQ Management
- Materials Management
- Pest Management
- Lead in Drinking Water

HealthyPeople.gov



Healthy People 2020 (HP 2020) Environmental Health measures support the general findings of this report of worsening conditions for children in PK-12 schools. As this report has documented, there are more public schools today, more children in schools, more children in poverty, and more with special education needs, yet fewer dollars and fewer staff for our schools. Consistent with that, and possibly resulting from the deep cuts to CDC's and EPA's budgets supporting voluntary programs for children's environmental health and for healthy school physical environments, HP 2020 found a decline in the percent of schools meeting HP 2020 objectives.

The data below provide trend lines, but not necessarily hard facts on school. See note below. The apparent downward trend among schools in meeting key objectives could be due to more fiscal pressures on local schools or to the deep cuts in US EPA programs addressing healthy learning environment (lead, water, asbestos, chemical management, Indoor Air, and IPM). A sample of HP 2020 EH for Schools:

School Indoor Air Quality

Objective **EH-16.1** Increase the proportion of the Nation's elementary, middle, and high schools that have an indoor air quality management program to promote a healthy and safe physical school environment, with a goal to increase from 51% to 56% (2010 to 2020), instead fell to 46% in 2014.

School Hazardous Materials Management

Objective **EH-16.3** Increase the proportion of the Nation's elementary, middle, and high schools that have a plan for how to use, label, store, and dispose of hazardous materials to promote a healthy and safe physical school environment, with a goal to increase from 86% to 93% (2010 to 2020), instead fell to 84% in 2014.

School IPM Practices

Objective **EH-16.4** Increase the proportion of the Nation's elementary, middle, and high schools that promote a healthy and safe physical school environment by using spot treatments and baiting rather than widespread application of pesticide, with a goal to increase from 56% to 64% (2010 to 2020), instead fell to 54% in 2014.

Schools Inspecting Water Outlets for Lead

Objective **EH-16.7** Increase the proportion of the Nation's elementary, middle, and high schools that promote a healthy and safe physical school environment by inspecting drinking water outlets for lead, with a goal to increase from 56% to 61% (2010 to 2020), instead fell to 46% in 2014. *NB. In CDC's SHPPS 2006 state survey, it reported that 26 states plus the District required local schools to test at the tap for lead. This is inaccurate and an example of how self-reporting may not yield valid results.*

To see all HP 2020 Goals and Objectives for Environmental Health, and the data and the methodology for the findings, visit <https://www.healthypeople.gov/2020/topics-objectives/topic/environmental-health/objectives>.

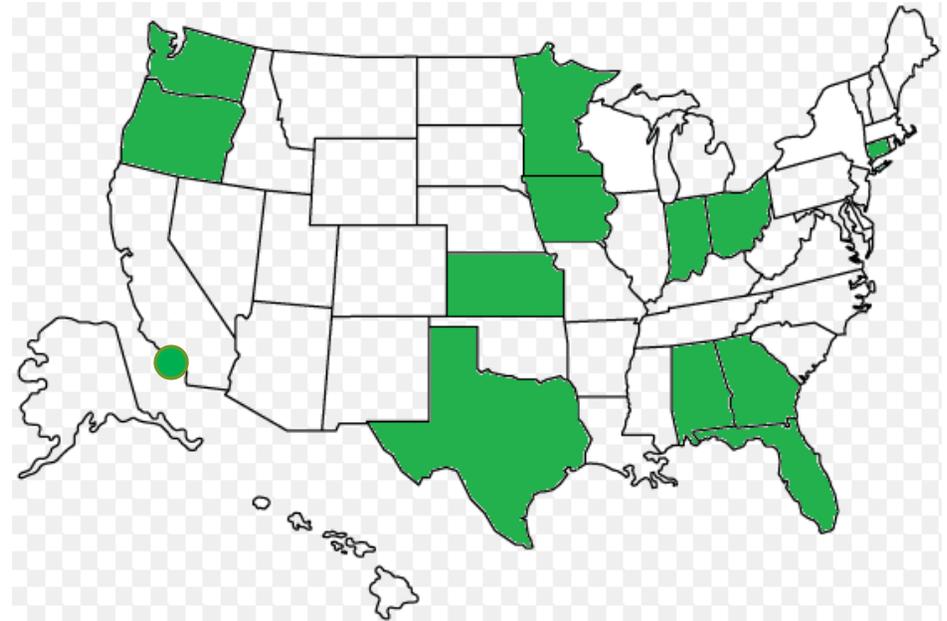
Data sources for 2010 and 2014: CDC's School Health Policies and Practices Surveys (SHPPS) of key informants at the state and local levels. *NB: SHPPS key informants may not be well-versed in or charged with the physical environment of schools.*

State/Local EH Programs/Practices: Preliminary Agency Survey

HS Network Phone Interviews with:

- Association of State and Territorial Health Officials
- National Association of City and County Health Officials
- Senior Staff: 12 states/1 local

Findings: **no** monitoring
or coordination by health
agencies of health
complaints/children with
suspected exposures in PK-
12 schools/childcare



Environmental Health at School: HS Network 2015-2016 Conferences

Two events engaged 76 attendees from 46 NGOs/agencies

- CDC NCEH/ASTDR
- US EPA: Office of Children's Health Protection; Indoor Environments Division
- NIOSH
- NIEHS
- Foundations
- NGOs
- State and local agencies
- School facility experts
- Parents of affected children



Environmental Health at School: Ignored Too Long

November 2015 Workshop



NIOSH: opportunities to integrate children's EH in schools and child care into research program

EPA (multiple offices): roles of the Office of Children's Health Protection & Indoor Environments; federal/state/NGO grants; guidance documents

MA-DPH: using the Affordable Care Act to track children with asthma

Lawrence Berkeley Labs: emerging research on indoor environments and their impact on children's health (CO₂)

November 2015 Conference

Reality Check Panel: three parents/community advocates discuss challenges in addressing EH hazards in schools: **identified > dozen local/state/federal agencies which declined to assist community groups or parents of affected children**

Keynote: the challenges and potential solutions to preventing and addressing EH risks in schools.

National Council on School Facilities: defining the risks to children in schools.

State and Local Public Health: some root reforms, but also understand current and future capacity issues for public health monitoring and enforcement capacity of state and county health departments



November 2015 Conference

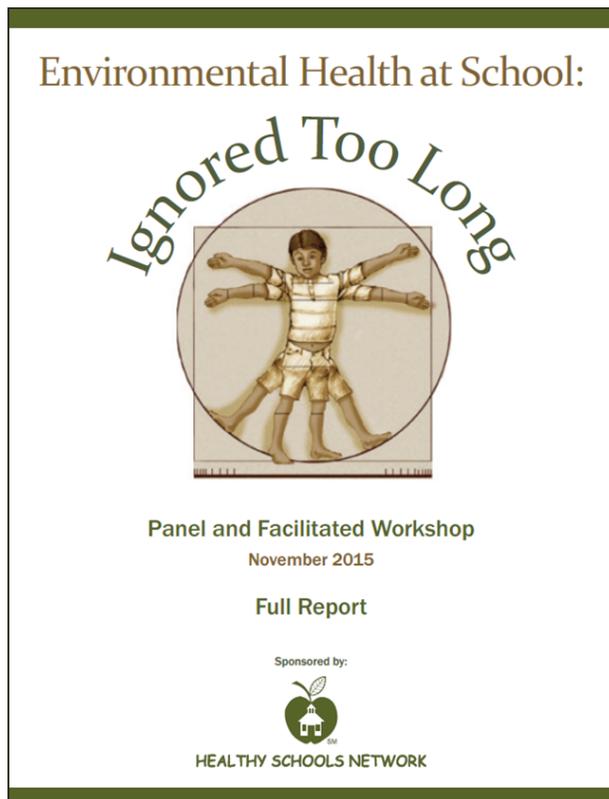
Policy Recommendations from NGOs:

A new COMMISSION and key high-level reports needed to address collaborative research, policy, and practices regarding children's environmental health

1. Federal Agency Coordination
2. Civil Rights/Disability Access
3. Primary and Secondary Prevention of EH Risks
4. Tracking
5. Capacity-building
6. More Training
7. New Resources



November 2015 Conference



Summary report (14 pp)

Full proceedings report (58 pp)

Bibliography (10 pp)

Presentations (12)

Available online at

http://healthyschools.org/documents/SUMMARY_FINAL.pdf

Environmental Health at School: New Solutions Put Children First

June 2016 Conference

Refine goals and objectives

Identify other unmet needs, propose actions

- Agenda and 12 presentations available at <http://healthyschools.org/clearinghouse.html>
- Summary report forthcoming



June 2016 Conference

Review of November 2015 workshop and conference: key issues, themes

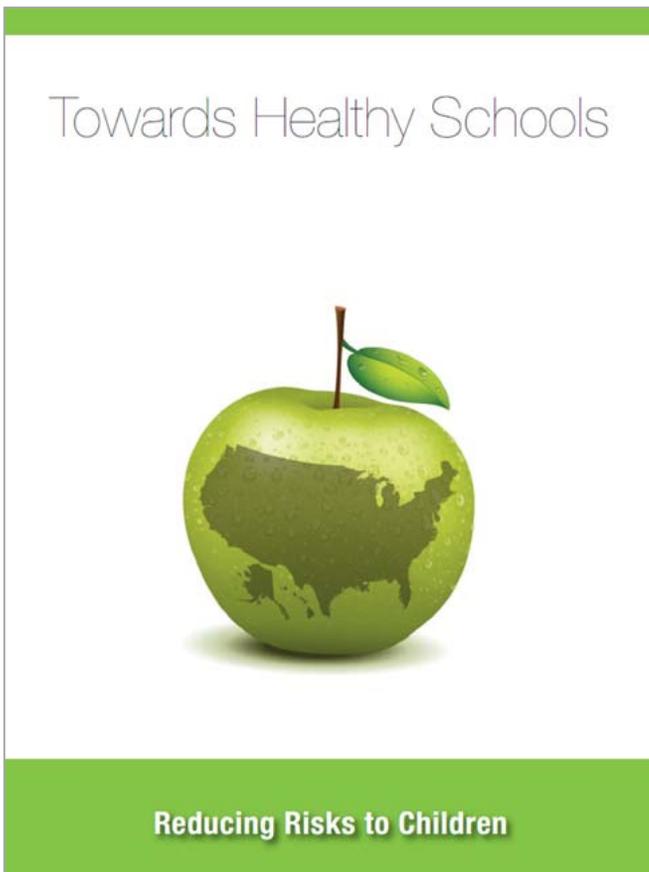
Aligning current policies and programs

Keynote: An Urgent Call to Action

CDC National Center for Environmental Health/ATSDR:
“School Environments and Children’s Health”

Panels and break-outs reflected on roles and opportunities for public health and environment agencies to protect children from environmental threats in schools/child care.

Report - *Towards Healthy Schools: Reducing Risks to Children*



State-of-the-states
data & policy
August 2016

Fourth triennial report

New special topics
Honor Roll States

www.HealthySchools.org

Report - *Towards Healthy Schools: Reducing Risks to Children*

National Data Summary

- Fewer public schools
- More children in schools
- More children with special needs
- More children in meal programs
- More children with asthma
- Less money for schools
- Fewer staff
- Schools **retreat** from baseline
HP2020 goals: IAQ, IPM, Haz Mat, Lead in Drinking Water

Towards Healthy Schools				
National Data — Summary				
NATIONAL TOTALS	2016	2012	2009	2006
CHARACTERISTICS OF SCHOOLS				
Number of Public Schools	100,551	101,435	98,793	96,143
Number of Public School Students	50,044,522	49,474,181	49,292,507	48,590,635
Number of Minority Students	25,018,175	23,516,967	21,904,510	19,778,912
Free & Reduced-Price Lunch Eligible	25,601,355	23,573,963	DNR	DNR
Number of Employees in School System	6,094,868	6,195,144	6,215,635	5,447,541
CHARACTERISTICS OF CHILDREN				
Students in Special Education	6,555,291	6,404,588	6,247,443	6,597,197
"Fenceline" Students	4,929,357	N/A	N/A	N/A
STATES				
State Education School Facilities Office	46	46	39	DNR
States with Adopted OSHA Plan	24	24	24	DNR
State Grants for Construction	38	40	36	36
States with School Building Assessments	28	28	28	28
POLICIES				
Food Allergy	22	23	DNR	DNR
Green Cleaning	12	12	8	DNR
High Performance Green Building	24	24	2	DNR
Indoor Air Quality (IAQ)	23	31	FN	DNR
Lead in Water*	27	27	DNR	DNR
IPM Plans	26	25	15	DNR
States that Responded to Senate Inquiry of State Asbestos Policy	20	N/A	N/A	N/A
NATIONAL AVERAGE				
CHARACTERISTICS OF CHILDREN				
% Uninsured Children	6.9	8.1	12.5	DNR
% Asthma	9.2	8.9	8.9	8.7
% ADHD	N/A	9.9	7.7	N/A
STATE SUPPORT				
% Change in State Funding Per Student 2008 - 2014	-3.32	DNR	DNR	DNR
% Change in Median Revenue Per Student 2012 - 2013	-1.80	DNR	DNR	DNR
% Change in Median Expenditures Per Student 2012 - 2013	-0.50	DNR	DNR	DNR

NA = DATA NOT AVAILABLE
DNR = DATA NOT INCLUDED IN REPORT
* See footnote 23 and Appendix for Healthy People 2020 comments

Towards Healthy Schools: Reducing Risks to Children



Sample state pages (CA, TX, NY)

Report also features:

- Culled media articles during 2015 on EH hazards in PK-12 schools in **all 50 states**
- Enrollment data for identified schools – thousands at risk daily
- No state or federal agency is collecting this data or monitoring exposures.
- **No data does not mean no problem.**

LAUSD authorizes relocating students, staff from 2 Porter Ranch schools due to gas leak (Castlebay Lane & Porter Ranch)

December 17, 2015

<http://www.dailynews.com/social-affairs/20151217/laUSD-authorizes-relocating-students-staff-from-2-porter-ranch-schools-due-to-gas-leak>

Children Enrolled: 1804

Summer Begins with PCB Remediation at MHS

June 11, 2015

http://www.mailbutimes.com/news/article_26705ddc-0fbb-11e5-90b5-371eee5571ba.html

Children Enrolled: 1243

Families seek damages over 'dangerous' asbestos at 3 closed Ocean View schools (Hope View, Lake View, & Oak View)

January 21, 2015

<http://www.hbindependent.com/news/tn-hbi-me-0129-ovsd-claim-20150121,0,6301663.story>

Children Enrolled: 1880

Jeff Vincent, Deputy Director, Center for Cities and Schools, University of California, Berkeley – "In California, we know that we have widespread educational and environmental health deficiencies in many of our PPK-12 school facilities. Unfortunately, we don't know the scale and scope of these problems statewide. As a result, inequities continue and we can't adequately target resources for effective remedies."



Texas

Students Walk Out Of South Oak Cliff High School to Protest Crumbling Building

December 7, 2015

<http://keranews.org/post/students-walk-out-south-oak-cliff-high-school-protest-crumbling-building>

Children Enrolled: 1319

Lakewood Elementary shut down again Wednesday after carbon monoxide leak

March 4, 2015

<http://www.dallasnews.com/news/community-news/white-rock-east-dallas/headlines/20150303-lakewood-elementary-expected-to-reopen-wednesday-after-carbon-monoxide-leak.ece>

Children Enrolled: 841

See Interviews with State Environmental Health Directors, page 49

Jerry Lamping, Member of EPA's IAQ in Schools Master Class – "Enrollment growth is a key driver for additional school facilities in Texas. Texas' under-18 populations are expanding 6.5 times faster than the U.S. average. The data show newly built schools (both new campuses in growing districts and replacement facilities) house almost 740,000 students — about 15 percent of Texas public school enrollment. Eleven of the 13 Texas counties that grew fastest (by population) between 2007 and 2012 fall into this bracket. They are home to suburbs around Austin, Houston, Dallas-Fort Worth and San Antonio. With populations ballooning at a whopping 15-22 percent, these counties accounted for 180 new schools. The Texas Comptroller of Public Accounts' Texas Transparency website has detailed information on 834 new campuses (excluding charter operators) — \$15.4 billion in combined adjusted construction costs."



New York

West Babylon High School evacuated after fumes in hallway make dozens sick

December 15, 2015

<http://pix11.com/2015/12/15/west-babylon-high-school-evacuated-after-fumes-in-hallway-make-dozens-sick/>

Children Enrolled: 1333

Drinking water shut off at Ithaca city schools after high lead levels detected

February 26, 2016

http://www.syracuse.com/news/index.ssf/2016/02/ithaca_schools_drinking_water_lead.html

Children Enrolled: >5100

See EPA grant results, page 41

Christopher Goeken, Director of Public Policy, New York League of Conservation Voters – "This is a national model for how to deal with this emerging public health crisis. New York is the first to pass legislation to require testing and remediation at the tap for all public schools."

Towards Healthy Schools: Reducing Risks to Children



PCBs and Schools

- Great health risks, especially in children
- 1979: Banned unless contained
- Found in light fixtures, caulk, ceilings, floor tiles, and paint
- EPA study in New York City found leaking PCBs in **all** the schools examined
- Local parents taking action

Towards Healthy Schools: Reducing Risks to Children

Climate Change: Children and Schools

- Increased evacuations due to flooding and other extreme weather events



- Schools designated as emergency shelters may not be designed to be climate resilient
- No agency “clears” a storm-damaged school for safe re-occupancy by children

Towards Healthy Schools: Reducing Risks to Children

“Fenceline” schools and school children

- 4.9 million children attend school within 1 mile of hazardous facilities listed in EPA’s Risk Management Program
 - 12,000 schools
- People living in poverty and minority groups are exposed to more environmental hazards



Summary

State education agencies and leaders do not have the capacity to address school environmental issues alone: facility policies and best practices require the expertise or programs of health, environment, and energy agencies.

All children are at risk for additional health and learning problems due solely to the unaddressed and unexamined threats in their schools and the lack of public health services for children at risk....

We will not be able to reduce risks to children unless and until public health and environment agencies rise to meet this ignored-too-long environmental health challenge.

Selected Resources

Towards Healthy Schools: Reducing Risks to Children, 2016

Towards Healthy Schools 2015: Progress on America's Environmental Health Crisis for Children, 2013

US EPA Healthy Schools/Healthy Children (IAQ, IPM, Radon, Mold, Design, Chemical Management, Water, Asbestos, LSRR, Siting)

CDC NCEH/ATSDR *Children and the Built Environment*

"Significance of the School Physical Environment – A Commentary“, Journal of School Health, July 2016

Green Schools: Attributes for Health and Learning, NRC, 2006

Climate, the Indoor Environment, and Health, IOM 2011

Healthy Schools Network's *Healthy Schools/Healthy Kids Clearinghouse*®

Educate & Celebrate
15th annual National Healthy Schools Day
Tuesday, April 4, 2017



www.NationalHealthySchoolsDay.org



HEALTHY SCHOOLS NETWORK

www.HealthySchools.org

www.NationalHealthySchoolsDay.org

www.CleaningforHealthySchools.org

with



Coalition *for* Healthier Schools

*...providing the national platform and
the forum for environmental health at school, since 2001...*

Coordinated by Healthy Schools Network