



Children's Health & Safe School Siting



Health protective educational facilities siting regulations will prevent toxic exposures to children and school staff, reducing their daily exposures to chemicals that can cause cancer, immune system impairment, birth defects, learning disabilities, asthma and other health problems.

Today there exist few state and no federal laws preventing the building of schools on or near sources of pollution. The average US public school is almost 50 years old. As of 2005, forty percent of America's schools report needing \$36 billion to repair or replace building features such as a roof or plumbing. At the same time, schools show record enrollments and school districts are struggling with budget concerns.

When constructing and renovating schools, thousands of school districts and school boards choose to build schools on contaminated property because they are pressed to save money and are often enticed to accept donated contaminated land or hire uncertified or poorly trained contractors to evaluate environmental risks. In poor, and often communities of color, children already suffer disproportionately from asthma, lead poisoning, and developmental disabilities. Constructing schools on contaminated land exacerbates the disproportionate injustices these communities face.

Few Regulations: There is currently a critical gap in legislation with respect to siting schools on or near contaminated land or sources of pollution. Despite the health hazards that on-site and off-site environmental contaminants pose to children. 20 states have no laws that restrict the siting of schools near manmade or natural environmental hazards. Only 10 states have laws that prohibit this practice outright. This often vaguely worded criterion rarely provides school districts with the tools necessary to select, evaluate, and either eliminate from consideration, or if absolutely necessary, remediate a contaminated site. This means that districts often select and build on sites where they are unaware of the existence and extent of contamination.

Prevent Toxic Exposures to Ensure Healthy Communities: Health protective educational facilities siting regulations will prevent toxic exposures to children and school staff, reducing their daily exposures to chemicals that can cause

¹Needleman, H.L. and Landrigan, P.J. (1994) Raising Children Toxic Free, New York, NY: Farrar, Straus, and Giroux.



cancer, immune system impairment, birth defects, learning disabilities, asthma and other health problems. The US mandates its schools to educate our children so that they can become vital contributors to society. Not only is education the foundation of a stable, just society, but critical to national economic competitiveness. Continued rises in rates of learning disabilities, lower IQ scores, hyperactive behaviors, and more could imperil our nation's future economic base.

Children are More Vulnerable: During prenatal development, infancy, and adolescence, children are growing and adding new tissue more rapidly than at any other period of their lives. Because their systems are still developing and mature at different rates, they are susceptible to environmental chemical influences over an extended time. Crucial systems continue to develop from birth through adolescence, such as that of the reproductive system. Insulation of brain nerve fibers is not complete until adolescence. Similarly, air sacs in the lung, where oxygen enters the blood stream, increase in number until adolescence.¹

Children are More Sensitive: Children's immature systems are less able to handle toxic chemical exposures. For example, children absorb about 50% of the lead to which they are exposed, while adults absorb only 10–15%.

Children Have More Susceptible Activities: Normal school activities heighten children's

exposure to site contamination. After school sports, recess, classes in which children explore the school site's ecosystem, children's natural curiosity, tendency to explore, and inclination to put their hands in their mouths all opens them to high levels of exposure.

Children Diseases Increasing: Environmentally linked diseases in children are on the rise across the board. Cancer is the number one disease-related cause of death in children.² Childhood learning disabilities, hyperactive behavior, and the inability to maintain attention have also soared nationwide. Attention deficit hyperactivity disorder has been estimated at an all time rate of 17%.³ The number of children in special education programs increased 191% from 1977 to 1994⁴, and federal Special Education grants increase each year.⁵ In California, autism is the fastest growing developmental disability, with a 1,148% growth rate between 1987 and 2007.⁶ National asthma rates have also increased significantly. According to the 2009 National Health Interview Survey (NHIS), an estimated 39.9 million Americans have been diagnosed with asthma in their lifetime. Children between the ages of 5 and 17 years experienced the highest prevalence, with 7.1 million suffering from asthma in 2009. In 2008 the condition accounted for approximately 14.4 million lost school days, and asthma is currently the leading cause of activity limitation. Between 2002 and 2007 asthma health care costs totaled over \$50 billion.⁷

²American Cancer Society (ACS) (2011) Cancer Facts and Figures 2011, Atlanta, GA.

³Visser, S.N., Bitsko, R.H., Danielson, M.L., Perou, R., and Blumberg, S.J. (2010) "Increasing Prevalence of Parent-Reported Attention Deficit/Hyperactivity Disorder Among Children – United States, 2003 and 2007" *Morbidity and Mortality Weekly Report* 59(44): 1439-1443.

⁴Greater Boston Physicians for Social Responsibility (GBPSR) (2000) *In Harm's Way: Toxic Threats to Child Development*, Greater Boston Physicians for Social Responsibility, Cambridge, MA, May.

⁵U.S. Department of Education (USDE) (2004) "Special Education: Grants to States." Available at <http://www.ed.gov/programs/osepgts/funding.html>.

⁶California Health and Human Services Agency (CHHS) (2007) *Autism Spectrum Disorders: Changes in the California Caseload, an Update: June 1987-June 2007*, CHHSA, Department of Developmental Services, Sacramento, CA, June.

⁷American Lung Association (2011) *Trends in Asthma Morbidity and Mortality*, ALA Epidemiology & Statistics Unit, July.

Additional CHEJ Resources

The ABC's of Healthy Schools
Creating Safe Learning Zones
Poisoned Schools: Invisible Threats, Visible Actions
Building Safe Schools: Invisible Threats, Visible Actions
Safe School Siting Toolkit
Fight to Win Leadership Handbook
How to Win Public Hearings

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