Subject: Improving Safety and Health Code Compliance in School Facilities (Resolution 413-A-18)

Presented by: Jack Resneck, Jr., MD, Chair

Referred to: Reference Committee D
(Diana Ramos, MD, MPH, Chair)

INTRODUCTION

Resolution 423-A-18, “Improving Safety and Health Code Compliance in School Facilities,” which was introduced by the Medical Student Section, and was referred by the House of Delegates, asked:

That our American Medical Association (1) support the development and implementation of standardized, comprehensive guidelines for school safety and health code compliance inspections; and (2) That our AMA support policies aiding schools in meeting said guidelines, including support for financial and personnel-based aid for schools based in vulnerable neighborhoods; and (3) That our AMA support creation of a streamlined reporting system for school facility health data potentially through application of current health infrastructure.

Testimony during reference committee noted that there are already extensive guidelines provided for schools by the Centers for Disease Control and Prevention, Environmental Protection Agency, and state departments of health, and that our American Medical Association should review guidelines from these sources. It was further noted that there is no governing body that enforces the compliance of safety standards in schools. This report addresses school environmental health and safety.

CURRENT AMA POLICY

Existing American Medical Association (AMA) policy addresses environmental health and safety, including drinking water and indoor air quality (see Appendix for full text). Relevant to this report is AMA Policy H-135.928, “Safe Drinking Water,” that supports creating and implementing standardized protocols and regulations pertaining to water quality testing, and reporting and remediation to ensure the safety of water in schools. AMA Policy H-135.998, “AMA Position on Air Pollution,” also supports maximum feasible reduction of all forms of air pollution, including biologically and chemically active pollutants, by all responsible parties, as governmental control programs are implemented primarily by local, regional, or state jurisdictions which possess the resources to bring about equitable and effective control.
BACKGROUND

School Environmental Health and Safety

Children are a vulnerable population with smaller body size and higher metabolism, which may increase susceptibility to environmental contaminants. Children may also be more likely to encounter contaminants, due to proximity to the ground, where they may ingest substances such as toxic dust by placing objects in their mouths, and where levels of airborne pollutants may also be higher. Regardless of route of administration, encounters with toxins such as heavy metals can lead to lifelong negative health and behavioral impacts, including via altered brain development.

Safety implies prevention of unintentional injuries, a leading cause of death and disability among children. Unsafe environments can lead to chronic health conditions, including asthma and allergies. As many as 25 percent of school-age children in the United States have a chronic health condition. Children spend large amounts of time in schools, where better management of their chronic health conditions may be associated with improved academic achievement.

Budget shortfalls for school infrastructure impact school operating resources, negatively affecting routine and preventative maintenance, particularly in lower-income districts. Lack of well-maintained school environments can pose obstacles to student learning and well-being, negatively affect surrounding communities, and contribute to health inequities.

Environmental health and safety laws and guidelines have been designed to protect private and public employees, students, the public, and the environment. A complex jurisdictional arrangement throughout federal, state, county, and municipal levels may create confusion for schools about which regulations apply. The following provides a broad overview of various agencies and entities with interests in school environmental health and safety.

FEDERAL AGENCIES

The federal government’s role in education has traditionally been limited, due to the Tenth Amendment of the U.S. Constitution, which reserves powers not assigned to the federal government for the states of the people. Rather than mandating direct federal oversight of schools, state and local districts have generally retained school regulatory authorities under existing law.

U.S. Environmental Protection Agency (EPA)

The EPA is responsible for protecting the environment and public through legislative mandates. These laws include air pollution, drinking water, pesticides, hazardous waste, and asbestos, among other topics. The Energy Independence and Security Act of 2007 added a requirement for the EPA to develop voluntary guidelines (together with other relevant federal agencies) for K-12 schools, and then assist states in establishing and implementing environmental health programs.

Other recent EPA mandates address drinking water and aging infrastructure, including: the Drinking Water State Revolving Fund of 2013 that provides loans that support lead pipe replacement projects across the United States; the Water Infrastructure Improvements for the Nation Act of 2016 that supports grant programs (e.g., the State Lead Testing in School and Child Care Program Drinking Water Grant); the Water Infrastructure Finance and Innovation Act of 2018 that leverages funding for water infrastructure projects to reduce exposure to lead and other contaminants; and the America’s Water Infrastructure Act of 2018 that offers programs and resources to help reduce lead in drinking water.
The EPA assists states and local school districts by providing grant support and capacity building, developing policy and data tools, and offering guidance on compliance and monitoring. The EPA’s voluntary guidelines provide examples of best practices from existing state environmental health programs for schools, recommend a six-step plan states can use to build or enhance a sustainable school environmental health program, and provide extensive resources for states to promote healthy learning environments for children and school staff.

In addition to the voluntary guidelines, in 2018 the EPA announced the Tools for Schools program to support schools in ensuring clean, healthy, and environmentally conscious school communities. The Tools for Schools approach provides strategies and a robust suite of tools to help schools identify, correct, and prevent a wide range of environmental health and safety risks, and to put in place a sustainable system to institutionalize a successful program at the school or school district level. The EPA also offers comprehensive Healthy Schools, Healthy Kids educational resources and tools to help maintain and enhance environmental health programs. These resources include educating students and school staff about prevention and management, as well as hands-on resources such as inspection manuals for staff and pest management professionals.

**Centers for Disease Control and Prevention (CDC)**

The CDC conducts critical science and provides health information that protects our nation against dangerous health threats, and responds when these arise. The CDC serves a key role in environmental health, as well as health promotion and education activities designed to improve health.

Various CDC centers and agencies address environmental health and safety, including the Agency for Toxic Substances and Disease Registry, which works towards minimizing risks associated with exposure to hazardous substances, and maintains toxicological profiles for substances; the Division of Adolescent and School Health, which collects data to monitor healthy and safe school environments such as School Health Policies and Practices Study and conducts surveys of schools including School Health Profiles covering asthma and other chronic conditions; and the National Center for Environmental Health which conducts research including the Environmental Public Health Tracking Program and collects state surveillance data on children affected by lead.

The National Institute for Occupational Safety and Health (NIOSH) has a Safety Checklist for Schools to help K-12 schools with health compliance, including with EPA regulations and Occupational Safety and Health Administration (OSHA) standards. NIOSH also responds to requests to investigate health and safety problems in the workplace, via the Division of Surveillance, Hazard Evaluations, and Field Studies, including in public schools. It also provides training in occupational safety and health, conducts occupational disease and injury research, and recommends standards to OSHA.

The School Health Index was developed by the CDC as a confidential online self-assessment and planning tool that schools can use to help improve health and safety policies and programs. The CDC also has additional resources for drinking water access through Healthy Schools, which offers the Whole School, Whole Community, Whole Child (WSCC) model as a framework for addressing health in schools. According to the WSCC model:

The physical school environment encompasses the school building and its contents, the land on which the school is located, and the area surrounding it. A healthy school environment will address a school’s physical condition during normal operation as well as during renovation
(e.g., ventilation, moisture, temperature, noise, and natural and artificial lighting), and protect
occupants from physical threats (e.g., crime, violence, traffic, and injuries) and biological and
chemical agents in the air, water, or soil as well as those purposefully brought into the school
(e.g., pollution, mold, hazardous materials, pesticides, and cleaning agents).

A recent report\textsuperscript{25} provided a comprehensive analysis of state policies for alignment with the CDC’s
WSCC model, and these findings are available by state and category,\textsuperscript{26} including physical
environment.

STATE AGENCIES

State agencies also play a role in school environmental health and safety, and these vary by
jurisdiction. Those that may be relevant include the state departments of education, labor,
environmental protection, community affairs, and health.\textsuperscript{19}

Departments of Education

State departments of education issue regulations that deal with private and public schools, as well
as regulations related to school construction. Besides regulations for environmental safety and
health regulations, a state department of education or school district may also provide policies
and/or guidelines related to environmental safety and health programs.

Departments of Labor

Although students are not generally covered by federal OSHA, state legislative mandates may
“adopt by reference” the OSHA standards. “Adoption by reference” requires compliance in the
state with federal OSHA requirements. State OSHA programs then assume responsibility for
enforcing regulations through the state department of labor, including health and safety.

Departments of Environmental Protection

In most states, the state EPA covers the same areas addressed by federal EPA, such as air pollution,
drinking water, hazardous waste, pesticides, and noise pollution. When incorporated into state
regulations, state EPAs are authorized by the U.S. EPA to enforce almost all EPA regulations.
States have typically assumed responsibility for enforcement of EPA mandates, following adoption
of their own state regulations, including inspections and enforcing EPA regulations in schools. The
U.S. EPA provides voluntary guidelines for states to follow, and encourages a leadership role from
state agencies, such as more comprehensive strategies, including by using available resources such
as model programs for indoor air quality.\textsuperscript{27}

Departments of Community Affairs

Agencies such as the Department of Community Affairs may enforce state fire safety and building
regulations. In many states, cities and counties are free to adopt their own codes, in the absence of
state codes.

Departments of Health

State departments of health enforce health regulations directed by legislative mandate. Health
departments may also work with schools and local health departments to provide technical
assistance on school environmental health and safety issues and promote best practices.
LOCAL GOVERNMENTS

Various codes and standards have been adopted by states, counties, cities/towns and districts to help ensure school safety. One example includes building codes, which may also regulate children’s play spaces and equipment. Another example is fire protection codes that address topics such as means of egress from buildings. Many safety codes apply to public schools via entities such as the local building or fire department, and some cover environmental health areas such as radon testing and elimination. At state or city levels, additional public safety statutes may apply.

KEY AREAS OF SCHOOL ENVIRONMENTAL HEALTH AND SAFETY

Air Quality

Airborne contaminants including mold and chemicals such as cleaning products and pesticides, can trigger a variety of health issues, including allergies and asthma. Various state indoor air quality statutes cover topics such as HVAC system inspection and inadequate ventilation, while others focus primarily on green cleaning. Nearly every state has a statute that heavily regulates smoking in schools and most prohibit smoking in schools completely. There is no state statute that encompasses all facets of indoor air quality safety in schools.

Chemical Hazards

Asbestos. Asbestos minerals are a group of silicate compounds that cause chronic lung disease and have been classified as a known human carcinogen. Asbestos statutes generally pertain to any public building and not just schools, and require certification and licensure before any contracting can occur for an asbestos abatement program, and substantial monitoring before and during any programs. Most state statutes provide for state or federal money for abatement programs in public buildings, including schools.

Radon. Radon is a colorless, odorless radioactive gas that seeps into buildings from surroundings, and can become trapped inside. Some states have radon statutes that provide that schools must be checked for radon, but most states delegate authority to various departments in the state.

Lead. Lead is a neurotoxin for which young children are particularly susceptible. Lead exposure is linked to impaired brain and nervous system development during childhood and associated with adverse effects including behavioral problems and additional health conditions later in life. Nearly every state has a statute that mitigates lead risks, though most are focused on reducing the risks of lead-based paint. Of the states that specifically address children, many only address children up to age six. The EPA offers voluntary guidance for preventing and mitigating some lead hazards in schools, including drinking water.

Water Quality

Currently, no federal law requires testing for lead in school drinking water. Although public water systems are regulated by the EPA, this regulation does not apply to downstream users such as schools. To date, federal agencies including the EPA, Department of Education and CDC have had a limited role in monitoring school drinking water. Improved federal guidance has been called for by the Government Accountability Office.
In 2017, 41 percent of school districts nationwide had not tested their water for lead, and additional 16 percent reported that they did not know whether the water had been tested. In 2016, New York became the first state to require lead testing in school drinking water and by 2018, 15 states had requirements for lead testing in school drinking water but many jurisdictions do not have programs to test for lead in drinking water.

Recent findings have highlighted challenges due a lack of standardized practices in data collection, reporting, and decision making. When testing has been performed, elevated levels of lead have often been found, and many schools must decide the levels that trigger retesting, prevent continued use of the source, and eventually spur remediation efforts.

CONCLUSION

Children are a vulnerable population and are susceptible to environmental contaminants. Given the amount of time children spend in schools, promoting healthy school environments is of importance. Existing guidelines recommend steps towards sustainable school environmental health programs, and additional tools are available to help schools implement guidelines to promote children's health. While some state and local governments have adopted these guidelines into law, overall adoption and enforcement of such guidelines remains voluntary. Budgets and school operating expenses directly impact school building infrastructure and maintenance. Schools in lower-income districts may be particularly vulnerable to environmental health hazards, which can pose obstacles to student learning and well-being, and contribute to health inequities.

RECOMMENDATIONS

The Board of Trustees recommends that the following recommendations be adopted in lieu of Resolution 413-A-18 and that the remainder of this report be filed.

1. That our AMA adopt the following new policy:
   “Environmental Health and Safety in Schools”
   Our AMA supports the adoption of standards in schools that limit harmful substances from school facility environments, ensure safe drinking water, and indoor air quality, and promote childhood environmental health and safety in an equitable manner. (New HOD Policy)

2. That the following policies be reaffirmed: H-135.928, “Safe Drinking Water,” and H-135.998, “AMA Position on Air Pollution.” (Reaffirm HOD Policy)

Fiscal Note: Less than $500.
APPENDIX – Current AMA Policy

H-135.928, “Safe Drinking Water”
Our AMA supports updates to the U.S. Environmental Protection Agency’s Lead and Copper Rule as well as other state and federal laws to eliminate exposure to lead through drinking water by:
(1) Removing, in a timely manner, lead service lines and other leaded plumbing materials that come into contact with drinking water; (2) Requiring public water systems to establish a mechanism for consumers to access information on lead service line locations; (3) Informing consumers about the health-risks of partial lead service line replacement; (4) Requiring the inclusion of schools, licensed daycare, and health care settings among the sites routinely tested by municipal water quality assurance systems; (5) Creating and implementing standardized protocols and regulations pertaining to water quality testing, reporting and remediation to ensure the safety of water in schools and child care centers; (6) Improving public access to testing data on water lead levels by requiring testing results from public water systems to be posted on a publicly available website in a reasonable timeframe thereby allowing consumers to take precautions to protect their health; (7) Establishing more robust and frequent public education efforts and outreach to consumers that have lead service lines, including vulnerable populations; (8) Requiring public water systems to notify public health agencies and health care providers when local water samples test above the action level for lead; (9) Seeking to shorten and streamline the compliance deadline requirements in the Safe Drinking Water Act; and (10) Actively pursuing changes to the federal lead and copper rules consistent with this policy.

H-135.998, “AMA Position on Air Pollution”
Our AMA urges that: (1) Maximum feasible reduction of all forms of air pollution, including particulates, gases, toxicants, irritants, smog formers, and other biologically and chemically active pollutants, should be sought by all responsible parties. (2) Community control programs should be implemented wherever air pollution produces widespread environmental effects or physiological responses, particularly if these are accompanied by a significant incidence of chronic respiratory diseases in the affected community. (3) Prevention programs should be implemented in areas where the above conditions can be predicted from population and industrial trends. (4) Governmental control programs should be implemented primarily at those local, regional, or state levels which have jurisdiction over the respective sources of air pollution and the population and areas immediately affected, and which possess the resources to bring about equitable and effective control.

REFERENCES


