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FISCAL AND POLICY NOTE
First Reader

Senate Bill 164 (Senator Nathan-Pulliam, *et al.*)
Education, Health, and Environmental Affairs

Education - Student Use of Backpacks - Assessment and Reduction of Health
Effects

This bill requires each local board of education to: (1) distribute educational information about the potential health impact of heavy backpacks on students to specified individuals; (2) engage its parent-teacher association (PTA) to assess matters concerning students' use of backpacks and to promote specified strategies relating to backpack usage; and (3) consider specified topics when developing backpack guidelines. In addition, each local board of education is authorized to allow Doctors of Chiropractic Medicine to conduct scoliosis examinations on students in the public schools.

Fiscal Summary

State Effect: None. The bill is directed at local school systems.

Local Effect: Local school systems can implement the requirements of the bill using existing resources.

Small Business Effect: None.

Analysis

Bill Summary: When developing guidelines for parents and students regarding student backpacks, a local board of education must:

- include information developed by trained medical personnel that advises that backpacks should weigh no more than a maximum of 10% of a child's body weight;

- encourage use of ergonomic backpacks with individualized compartments to hold books and equipment efficiently;
- encourage children to wear both shoulder straps and not to sling the backpack over one shoulder;
- encourage use of wide, padded, adjustable straps to fit a child's body;
- to the extent feasible, encourage school personnel to have students leave the heaviest books at school and use handouts or workbooks for homework assignments;
- to the extent practicable, encourage school personnel to use e-textbooks; and
- encourage school personnel to engage students in an integrated education activity about backpacks by using a hanging scale in the classroom

Current Law: With the assistance of the local health department, each local board of education must provide adequate school health services, instruction in health education, and a healthful school environment. Maryland State Department of Education and the Maryland Department of Health must jointly develop public standards and guidelines for school health programs and offer assistance to the local boards of education and local health departments in their implementation.

Background:

Backpack Weight

The American Chiropractic Association believes that elementary school students should not carry more than 10% of their body weight; however, recent research may suggest that obese children had trouble carrying much less than 10% of their weight. A study done found that 87% of students carried backpacks weighing more than 10% of their body weight.

Scoliosis

Scoliosis is an abnormal lateral curvature of the spine that affects 2-3% of the population. Scoliosis is most often diagnosed in childhood or early adolescence. The primary age of onset for scoliosis is 10-15 years old, occurring equally among both genders. Females are eight times more likely to progress to a curve magnitude that requires treatment.

Scoliosis is usually confirmed through a physical examination, an x-ray, spinal radiograph, CT (computerized tomography) scan or MRI (magnetic resonance imaging). A standard exam that is sometimes used by pediatricians and in grade school screenings is called the Adam's Forward Bend Test. During this test, the patient leans forward with his or her feet together and bends 90 degrees at the waist. From this angle, any asymmetry of the trunk or any abnormal spinal curvatures can easily be detected by the examiner. This is a simple

initial screening test that can detect potential problems, but cannot determine accurately the exact type or severity of the deformity. It is best combined with other tests for scoliosis. Radiographic tests are required for an accurate and positive diagnosis.

Chapter 619 of 2006 repealed the requirement for a scoliosis screening at least once between sixth and eighth grade in public and private schools. The Maryland Chapter of the American Academy of Pediatrics advocated the elimination of scoliosis screening based on findings from the [U.S. Preventive Services Task Force](#). The task force found that scoliosis screening for adolescents is not evidence-based.

Several regulated health occupations including chiropractors assess individuals for scoliosis and treat scoliosis in their health practice.

Parent-Teacher Associations

The term “parent-teacher association” has been trademarked by the National PTA. There are other organizations of teachers and parents that do not pay dues to the Maryland PTA or the National PTA. Within the past 10 years, the Maryland PTA revoked the charters for the PTAs located in two Maryland districts. The district-wide PTAs were not eligible for reinstatement until two years after their charters were revoked.

Local Fiscal Effect: Local school systems can distribute information about the potential health impact of heavy backpacks on students to administrators, teachers, parents, and students using existing resources. Actually implementing any of the strategies related to backpack weight such as using e-textbooks may increase expenditures by an unknown amount. To the extent that any school systems re-institute scoliosis screenings, expenditures increase minimally.

Additional Comment: It is unclear if a public school is allowed by the National PTA policy to engage a parent-teacher association to complete the required tasks. It should also be noted that every public school in the State may not have a parent-teacher association.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Carroll, Montgomery, Queen Anne’s, and St. Mary’s counties, Maryland Department of Health; Science Journal of Public Health; American Chiropractic; *kidshealth.org*; Mayo Clinic; Department of Legislative Services

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