

Department of Legislative Services
Maryland General Assembly
2005 Session

FISCAL AND POLICY NOTE

House Bill 86 (Delegate Gilleland)
Health and Government Operations

**Public Health - Children and Pregnant Women - Mercury and Heavy Metal-Free
Vaccines and Injections**

This bill prohibits, beginning July 1, 2006, an individual under the age of three or a woman known to be pregnant from being vaccinated with a vaccine, or injected with a product, that contains mercury or other heavy metals.

Fiscal Summary

State Effect: The bill primarily alters the purposes for which existing funds may be used. Any administrative changes could be handled by the Department of Health and Mental Hygiene (DHMH) with existing resources.

Local Effect: None.

Small Business Effect: None. It is assumed that for any vaccines paid for by a consumer, the consumer would pay any additional cost for a vaccine without thimerosal.

Analysis

Current Law: The Secretary of Health and Mental Hygiene must devise and institute the means to prevent and control infant mortality and diseases of pregnancy, childbirth, infancy, and early childhood. The Secretary also must promote the welfare and hygiene of maternity and infancy.

Immunization against certain diseases is required for a student to be admitted and stay in a public or private school. A parent or guardian must provide the school with evidence that a child received the age-appropriate immunization following the immunization

schedule recommended by the Subcommittee on Immunizations and Infectious Diseases of the Medical and Chirurgical Faculty of Maryland and the Secretary of Health and Mental Hygiene.

Background: The Food and Drug Administration (FDA), the Agency for Toxic Substances and Disease Registry (ATSDR), and the Environmental Protection Agency (EPA) have mercury exposure guidelines of what mercury levels are thought to be safe. These standards are based on methylmercury research, rather than ethylmercury, because methylmercury is more easily bound to tissue, remains there a longer time, and is believed to be more toxic, according to the Centers for Disease Control and Prevention (CDC).

Thimerosal, a preservative used in some vaccines and other products, contains approximately 49% ethylmercury. There is no evidence that thimerosal in vaccines harms individuals, other than causing reactions such as redness and swelling where the injection occurs, CDC states.

The Institute of Medicine's Immunization Safety Review Committee reported October 1, 2001 that scientific data is inadequate to determine whether or not there is a causal relationship between thimerosal in childhood vaccines and neurodevelopmental disorders such as autism, attention deficit hyperactivity disorder, and speech or language delay.

In 1999, FDA reviewed the use of thimerosal in childhood vaccines. FDA found that a child's cumulative mercury exposure from recommended vaccines was within acceptable limits set by FDA, ATSDR, and the World Health Organization. At the same time, FDA learned that, depending on the vaccine formulations and the infant's weight, the cumulative mercury exposure during a child's first six months could exceed the EPA's recommended guidelines for methylmercury. In response, the Public Health Service and the American Academy of Pediatrics urged vaccine manufacturers to reduce or eliminate thimerosal in vaccines.

The U.S. Code of Federal Regulations generally requires multi-dose vials of vaccines to contain a preservative. DHMH advises that removing the preservative often forces manufacturers to distribute vaccines in single-dose vials, which are often more costly to produce, store, and ship. Some manufacturers use thimerosal throughout the manufacturing process and then remove the compound, which also adds to the cost of the vaccine. DHMH reports that most vaccines are produced without mercury.

Beginning July 1, 2006, California prohibits a person who is knowingly pregnant or who is under age three from being vaccinated or injected with a vaccine or product that contains more than a certain amount of mercury. Early childhood immunizations administered in Iowa may not contain more than trace amounts of mercury beginning January 1, 2006. Legislation has been introduced in several other states addressing vaccines containing mercury but none have passed.

The Mercury-Free Vaccines Act of 2004 (H.R. 4169), introduced in the 108th Congress, would have eliminated mercury from childhood and adolescent vaccines by January 1, 2006, and from all adult vaccines by January 1, 2007. No action was taken before the end of the 108th Congress.

State Fiscal Effect: Depending on the availability of vaccines without thimerosal and the demand for the vaccinations, the Community Health Administration (CHA) advises that this bill could result in fewer individuals receiving vaccinations if vaccines without thimerosal are not available. Vaccines distributed by CHA, or by the Centers for Disease Control and Prevention at CHA's request to a specific area of the State, are purchased with federal funds.

If fewer individuals receive vaccinations as a result of this bill, there is the potential for an increased number of disease outbreaks, which in extreme conditions, could result in the need for additional CHA employees to conduct disease surveillance activities and disease outbreak investigations. These employees would be paid with general funds.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Department of Health and Mental Hygiene; Food and Drug Administration; *Mercury & Thimerosal*, National Immunization Program, Centers for Disease Control and Prevention; *CDC Vaccine Price List*; National Conference of State Legislatures; Department of Legislative Services

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