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## **Testimony for House Bill 226**

**February 8, 2023**

### **Public and Nonpublic Schools - Bronchodilator and Epinephrine Availability and Use – Policies.**

Dear Chair Atterbeary, Vice-chair Wilkins, and members of the Ways and Means Committee:

Thank you for the opportunity to provide this written testimony. My name is Dr. Christy Sadreameli, and I am a pediatric pulmonologist, researcher, and faculty member at Johns Hopkins University in Baltimore City. Asthma is the most common chronic disease in childhood, and I take care of many children with asthma in my clinic and the hospital. I care for children who live all over the state of Maryland, including many who live and attend school in Baltimore City. I am testifying today in support of this bill that would provide emergency albuterol in schools. I am here as a pediatrician, and asthma specialist, and a citizen of the State of Maryland.

The prevalence of asthma in Baltimore City in children under 18 is more than twice the national average (20% in Baltimore City compared with 9.4% nationally), and asthma morbidity (including hospitalizations) is very high in Maryland, including Baltimore City. Asthma is a disease of the small airways in the lungs. Acute asthma symptoms, sometimes called asthma attacks, can be life-threatening. Asthma attacks are caused by bronchospasm, or inappropriate tightening of the muscles around the small airways of the lungs, resulting in wheezing, coughing, chest tightness, and difficulty breathing. An asthma attack may be triggered by a respiratory virus, allergens, smoke, poor air quality, certain weather conditions, physical activity, and more. Because asthma attacks can occur suddenly and without warning, children with asthma should always have access to emergency medication that can quickly reverse their symptoms. The gold standard for this is albuterol, supported by all U.S. and international asthma guidelines. Albuterol, a short-acting bronchodilator, is given by inhaler with an attached spacer, and works right away to relax the smooth muscles around the small airways. This provides quick relief of asthma symptoms and can help prevent the onset of sudden respiratory decompensation. Albuterol is very safe, easy to administer, effective, and well-tolerated-- its side effects are very mild (increased heart rate, jitteriness).

Despite the need for albuterol, 80% of children with asthma do not have it at school. This problem affects all children—whether they are rich or poor, attend private school or public school, and living in urban settings or in rural settings. There are many reasons why a child might not have albuterol at school. They may have run out, may not have turned in the required forms, may have forgotten it (especially relevant with older teens who often have the responsibility to self-carry albuterol), it may have expired, it may be locked away in a locker or office. Some parents do not realize their child's condition is even called asthma, and still other children experience their first-ever asthma attack at school. Under the current system, many

children are at risk of life-threatening asthma at school. Without access to albuterol, a life-saving medication, vulnerable children may suffer from severe, sudden asthma attacks and even die at school. Despite case management by school personnel (including diligent work by school nurses) the fact remains that many children do not have the proper medication and documentation at school. As an example, one public school in Baltimore City with excellent and above-average health staff resources cites that approximately *half* of its known asthmatics have the medication and documentation at school. The situation can be much worse in other, more typical schools in Baltimore City and around the state with fewer resources, including the many that lack a dedicated, always-in-person school nurse. Another issue is that because asthma is so common, and particularly uncontrolled asthma is so common in certain parts of our state such as Baltimore City, severe, uncontrolled asthma can be “normalized” and parents and children may not realize that asthma is life-threatening, making it even less likely that they will submit the required forms and medication. Finally, there are many barriers to getting the proper forms and medication, which may require a parent taking off work, making an appointment with the doctor, and going to the pharmacy. Parents may experience many barriers during this process (including those of paperwork, finances, comfort navigating the healthcare system, transportation, and discrimination). Children whose parents experience barriers to medical care and paperwork are unfortunately often some of the most at-risk asthmatics. This includes urban minority children. These circumstances can also apply to any child who is impacted by poverty and a lack of medical resources anywhere in our state, including rural areas. This is an equity issue. Our legislation attempts to address the inequity that currently exists.

It is important that the law contains language that enables children exhibiting respiratory distress suggestive of an asthma attack to receive emergency albuterol, even if they do not have proper documentation of asthma diagnosis. Though this will occasionally result in a child without asthma being given albuterol for non-asthma symptoms (e.g., a child that is having difficulty breathing because of an anxiety attack, or a child with pneumonia), it is important to realize that this is still safe. Albuterol will not “mask” another diagnosis, like pneumonia, because it does not treat pneumonia. Albuterol is one of the safest medicines I prescribe. The risk of *not* giving this medication to children with an asthma attack is much higher, as it can result in ambulance transfer, serious illness, and even death. It is straightforward to train staff how to recognize respiratory distress and administer albuterol. Currently, some staff, such as teachers and office staff, already undergo similar training to use albuterol in certain cases (such as for a field trip). In states with a stricter administration requirement (e.g., in Texas, where the student must have a documented diagnosis of asthma to receive stock albuterol), the law has not been very effective, and groups are trying to get the law changed to be broader. There is also no current alternative policy or law in Maryland that will cover these children. For example, the Epi-Pen legislation and implementation policies are meant to cover severe food allergy (anaphylaxis) and cannot, and should not, be viewed as an alternative to this legislation. Rather, this bronchodilator (albuterol) legislation should co-exist with the existing Epi-Pen legislation, as each covers a different situation. This is the case in other states with stock albuterol laws, which usually co-exist with Epi-Pen laws. School personnel in Maryland can and should be trained to differentiate between respiratory distress indicative of asthma and anaphylaxis, just as they are in other states.

In September of 2021, a policy statement was published in the *American Journal of Respiratory and Critical Care Medicine* in support of school stock albuterol legislation. The coauthors included physicians, including myself, school nurses, pharmacists, and parents on behalf of cosponsoring organizations: the American Thoracic Society, the American Lung Association, Allergy & Asthma Network Mothers of Asthmatics, and the National Association of School Nurses. HB226, which you are considering today, contains the essential elements of a successful law that this group of experts recommended, including the general respiratory distress requirement, which was strongly recommended in the policy statement.

Stock albuterol programs have been found to be effective at preventing adverse asthma events at school and are cost effective. Data from a stock inhaler project in the urban Sunnyside Unified School District in Arizona showed that a stock albuterol inhaler was given 222 times to 55 children in 20 schools over one year. This resulted in a 20% reduction in emergency calls and a 40% reduction in ambulance transports in that year (Pappalardo, AA and Gerald LB, *Pediatrics*, 2019). The cost per school was \$155, which included albuterol, educational and training materials, and disposable spacers (holding chambers).

Sixteen states have already passed laws or have guidelines providing stock emergency albuterol inhalers at school. Many existing laws were created by amending the existing EpiPen legislation. The rationale is similar, as EpiPens and albuterol are both life-saving medications that must be given quickly in an emergency situation to halt rapid decompensation. Just as for the EpiPen law, where staff training includes recognition of a life-threatening food allergic reaction (and does not require a documented food allergy diagnosis), this law should not be restricted to those with a documented asthma diagnosis. It also should not restrict access to albuterol, a life-saving medication, whether or not a health professional is physically present during an emergency situation to give it. This bill is meant to be pragmatic and to work in the current situation, even when a school nurse is not present (which is, unfortunately, often the case in our schools today).

I often tell my young patients with asthma (and their parents) that asthma does not have to control their life. However, we must consider the vulnerable children with asthma who are currently at risk for life-threatening asthma events in school. Thank you for supporting the 2022 version of this bill last year, when the Ways and Means committee voted unanimously in favor before it passed the House of Delegates. Please consider supporting HB226 this year, which will help to ensure that all children with asthma have access to life-saving medication in school and help protect them so that they can go on to enjoy a happy and healthy future. Thank you again for the opportunity to testify today.

### ***Information sources***

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Disclaimer: The views expressed here are my own and do not necessarily reflect the policies or positions of my employer, Johns Hopkins University.

Sincerely,



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