S. Christy Sadreameli, MD, MHS
Assistant Professor of Pediatrics
Johns Hopkins University
Eudowood Division of Pediatric Respiratory Sciences
200 North Wolfe Street
Baltimore, Maryland 21287-2533
(410) 955-2035
(410) 955-1030 (fax)

Senate Testimony for House Bill 266
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Public and Nonpublic Schools - Bronchodilator and Epinephrine Availability and Use – Policies.

Dear Chair Feldman, Vice-chair Kagan, and members of the Education, Energy, and the Environment 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. I am one of the top asthma experts in the state and a national authority on the subject of stock albuterol in schools. I helped write the national stock albuterol policy guidelines referenced later in this testimony and have advised stakeholder groups in other states, including Iowa, Texas, Montana, Hawaii, and Pennsylvania who have either already passed or are working on passing or updating their legislation.

I have worked with Delegate Boyce and our group of advocates (all health professionals) for the past four years on this legislation and strongly support HB266 in its original form without amendments. Unfortunately, stakeholders who opposed our bill have introduced these amendments, which will create equity issues and severe limit the benefits to vulnerable children.

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. Unfortunately, many children do not have the proper medication and documentation at school. There are schools in Baltimore City where no asthmatics have turned in their forms, for example. 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, going to the pharmacy, and parents obtaining an additional supply of medication. 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, such as 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.

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. The amendment that was added in the House to limit albuterol to children with confirmed, documented diagnosis of asthma at school is a mistake, puts our bill out of step with national guidelines, and severely limits the bill. In our state, advocates have created a lot of fear and confusion between asthma and anaphylaxis (food allergy), and the preferred treatments for each. The preferred treatment for asthma is a bronchodilator (albuterol) and the preferred treatment for food allergy is Epi-Pen- period. School staff, parents, students themselves, and some teachers are currently trained to differentiate between the two diagnoses. This is basic first aid and emergency training that school nurses already receive. All we are trying to do is to provide an emergency medication (albuterol) so that schools can use it when they recognize an asthma attack. Anyone who tells you that Epi-Pen is first line for asthma, or a preferred alternative for asthma, is not being honest with you. Unfortunately, this misinformation has been shared with state lawmakers repeatedly during this legislative session by the Maryland Nurse Association. The fact of the matter is, this concern about confusion between food allergy/anaphylaxis and asthma has not come up in any other state with a stock albuterol law, either in the legislative side or the implementation side. All states with a stock albuterol law also have an Epi-Pen law.

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, or food allergy/anaphylaxis, because it does not treat pneumonia or anaphylaxis. 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. 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 their law was amended this year so that children do not have to prove to the school they have asthma (with paperwork)- thank goodness, their amendment, which will no longer restrict albuterol to those with paperwork/documented diagnosis, is about to pass both houses.

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 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 co-exist with Epi-Pen laws. Again, school personnel in Maryland can, should, and already are being 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. In our state, we allow Epi-Pen to be given if it seems like the child is having a food allergy (regardless of paperwork/documented diagnosis). We allow Narcan to be given if it seems like someone has an opioid overdose (without requiring proof or documentation of drug use). Albuterol needs to be applied in the same way- to those who are exhibiting respiratory symptoms consistent with an

asthma attack (cough, chest tightness, and wheezing). It would be strange if we only want to restrict albuterol, as it is an extremely safe medication- safer than Epi-Pen. 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).

Because our state has had so much discussion about food allergy and Epi Pen that has created confusion for people, I want to make sure the guidelines aspect of the bill is done properly. We cannot recommend schools give Epi Pen for asthma. I recommend an amendment requiring an asthma expert takes part in the guideline writing process to ensure international and national asthma guidelines as well as FDA guidelines for albuterol and Epi Pen are followed.

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. We are requesting the committee further amend HB226 to include a requirement that a pediatric asthma specialist be included in the guideline updating process and that the bill allow for the administration of asthma rescue medication to all children in respiratory distress in the case of emergency regardless of documented diagnosis. By amending the bill it 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,

S. Christy Sadreameli, MD, MHS
Assistant Professor of Pediatrics
Eudowood Division of Pediatric
Respiratory Sciences

Johns Hopkins University
Baltimore, MD, USA
Chair, American Thoracic Society
Pediatric Advocacy Subcommittee
Office: (410) 955-2035
Fax: (410) 955-1030
Email: ssadrea1@jhmi.edu