




Illinois State Board of Education

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TO: The Honorable William E. Brady, Senate Minority Leader
The Honorable John J. Cullerton, Senate President
The Honorable Jim Durkin, House Minority Leader
The Honorable Michael J. Madigan, Speaker of the House
The Honorable JB Pritzker, Governor

FROM: Dr. Carmen I. Ayala 
State Superintendent of Education

DATE: September 30, 2019

SUBJECT: The Program and Administration of Undesignated Epinephrine Report,
School Year 2018-19

On behalf of the Illinois State Board of Education, which is required under Section 22-30 of the Illinois School Code [105 ILCS 5/22-30] to issue this report, I am pleased to submit "The Program and Administration of Undesignated Epinephrine Report, School Year 2018-19." This report summarizes the characteristics of cases and dosage of undesignated epinephrine administrations reported to the Illinois State Board of Education during the 2018-19 school year.

A summary of the major findings:

- There were 138 public schools across 71 districts and three nonpublic schools that reported 174 administrations of undesignated epinephrine during the 2018-19 school year. Chicago Public School District 299 (comprising 20 percent of statewide students) reported the greatest number of administrations with 27 percent, while Elmhurst School District 205 had the second greatest number of administrations with 5.2 percent.
- There are four broad categories of triggers listed on the reporting form: food, drug, insect, and other. Seventy percent of the cases listed food as the trigger for the reported allergic episodes where epinephrine administration was documented. Four percent of the cases listed a drug-related trigger, 1 percent listed insect, and 24 percent listed "other" as the trigger.

cc: Tim Anderson, Secretary of the Senate
John W. Hollman, Clerk of the House
Legislative Research Unit
State Government Report Center

**The Administration of
Undesignated Epinephrine
Report
2018-19**

Illinois State Board of Education

Wellness Department

September 2019

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Chairman of the Board

Dr. Carmen I. Ayala

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Foreword

The administration of epinephrine via auto-injector from a stock supply to persons who may or may not have had a previous diagnosis of anaphylaxis to an allergen is permitted in Illinois schools by 105 ILCS 5/22-30. School Code requires a report form to be provided to the Illinois State Board of Education (ISBE) by each Illinois public and nonpublic school that administers undesignated epinephrine. This report must be sent to ISBE within three days of the incident that necessitated use of the undesignated supply of epinephrine. This report is a compilation of data on the frequency and circumstances of administration of undesignated epinephrine during the preceding academic year and the names of districts or schools that have instituted a policy and procedure for the administration of undesignated epinephrine. Inquiries regarding this report may be directed to Rebecca Doran in the Wellness Department at (217) 782-5270.

Background

Section 22-30 of the Illinois School Code [105 ILCS 5/22-30] mandates that a school, whether public, charter, or nonpublic, must permit the self-administration and self-carry of an epinephrine injector by a pupil, provided that the parents or guardians of the pupil provide to the school written authorization for the self-administration and self-carry of an epinephrine injector; written authorization from the pupil's physician, physician assistant, or advanced practice registered nurse; and a written statement from the pupil's physician, physician assistant, or advanced practice registered nurse containing the name and purpose of the epinephrine injector, the prescribed dosage, and the time or times at which or the special circumstances under which the epinephrine injector is to be administered.

School districts, public schools, charter schools, or nonpublic schools may maintain a supply of undesignated epinephrine auto-injectors in any secure location that is accessible before, during, and after school where an allergic person is most at risk, including, but not limited to, classrooms and lunchrooms.

If a school district, public school, charter school, or nonpublic school maintains or has an independent contractor providing transportation to students who maintain a supply of undesignated epinephrine injectors, then the school district, public school, charter school, or nonpublic school must report that information to the State Board of Education upon adoption or change of their policy in a manner as prescribed by the State Board. The report must include the number of undesignated epinephrine injectors in supply.

The State Board of Education shall submit a report to the General Assembly by October 1 of each year identifying the frequency and circumstances of undesignated epinephrine administration during the preceding academic year. The report shall also contain information on which school districts, public schools, charter schools, and nonpublic schools maintain or have independent contractors providing transportation to students who maintain a supply of undesignated epinephrine injectors.

Methodology

The 2018-19 epinephrine usage data collection was conducted using the “Undesignated Epinephrine Reporting Form” (ISBE 34-20) found at <https://www.isbe.net/Documents/34-20-undesignated-epinephrine-rptg.pdf>. Schools emailed the forms to epinephrine@isbe.net. The first report for the 2018-19 school year was received on August 7, 2018, and the last on June 7, 2019.

The 2018-19 epinephrine policy data collection was conducted using the “Undesignated Epinephrine Policy Form” found at <https://www.surveymonkey.com/r/FWFKX6Q>. ISBE staff reviewed the forms and contacted school staff if additional information was needed.

Limitations

- The validity of the data reported is subject to the limitations of the aggregate nature and quality time.
- There are 852 districts and 915 registered nonpublic schools across the state. Ten schools reported on the 2018-19 epinephrine policy survey.
- Detailed items like triggers may include multiple categories of triggers and may not indicate a case-by-case count.
- The potential trigger for the allergic reaction is not necessarily a medical diagnosis, as information on follow-up medical care was not collected.
- Percentages may not equal 100 for all data tables and figures due to rounding.
- This report does not include administration by school staff or student from the student’s own supply of (designated) epinephrine.

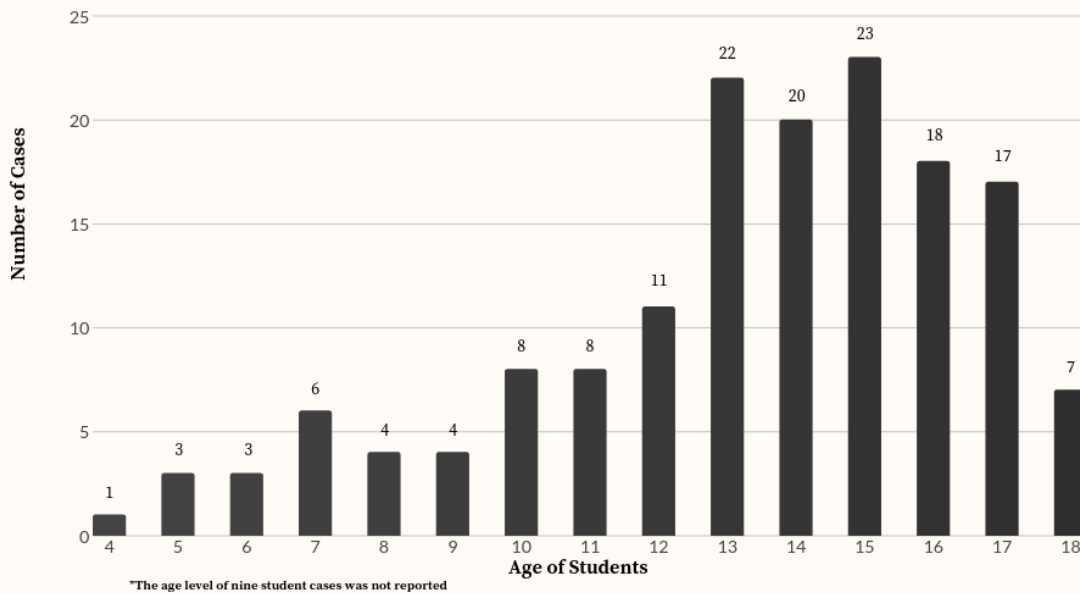
School Year 2018-19 Results

There were 138 schools across 71 districts and three nonpublic schools that reported at least one administration of undesignated epinephrine in 174 reported incidences during the 2018-19 school year. Chicago Public School District 299 reported the greatest number of administrations with 27 percent, while Elmhurst District 205 had the second greatest number of administrations with 5.2 percent.

Background and age

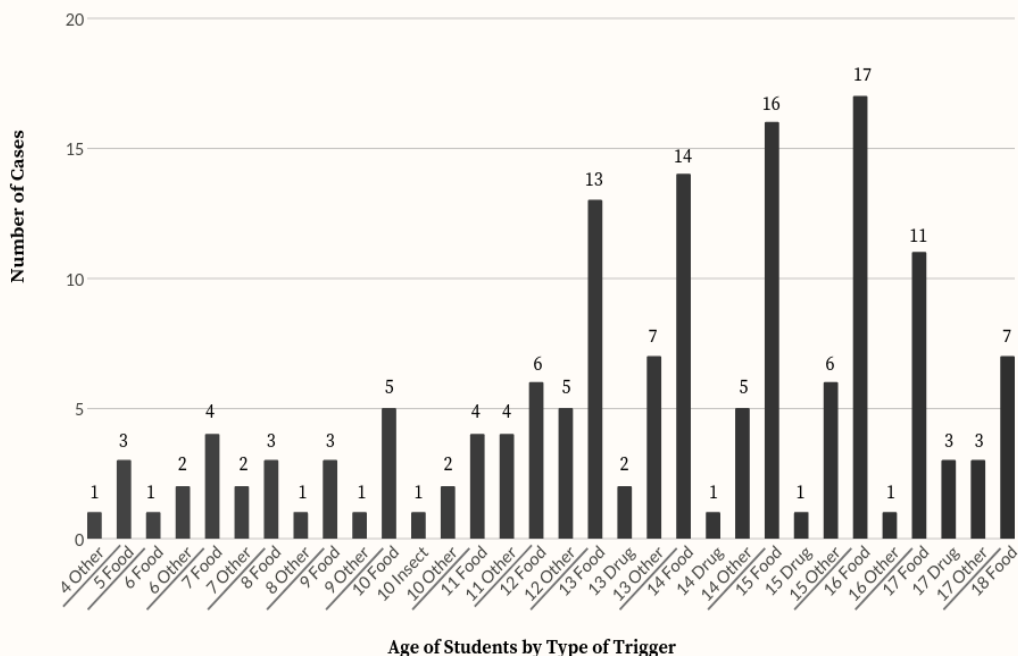
One hundred and fifty-five (87 percent) of the individuals receiving epinephrine were students and 19 (10 percent) were staff members and other adults. The average age of individuals receiving epinephrine was 14.6 years. Nine cases did not list age or age was unknown.

Figure 1: Number of undesignated epinephrine administrations among students by age level*



- The age groups most represented in the figure above were 15 (n=23) and 13 (n=22).
- The third most frequent age group was age 14 (n=20).

Figure 2: Number of undesigned epinephrine administrations among students by type of trigger and age level



- Cross-referencing with the type of triggers that precipitated the allergic episode reveals that students age 16 had the highest food-related episodes. This was also the highest population group with reported undesigned epinephrine use.

Eighty-nine (50 percent) of the students and staff members who received epinephrine had a previously known diagnosis of a severe allergy.

Triggers by category

There are four broad categories of triggers listed on the reporting form. These triggers are food, drug, insect, and other. Districts may, but are not required, to provide specifics. One hundred twenty (70 percent) of the cases listed food as the trigger for the reported allergic episodes where epinephrine administration was documented. Eight (4 percent) of the cases listed a drug-related trigger, three (1 percent) listed insect, and 41 (24 percent) listed “other” as the trigger.

There were two cases among the reported triggers listing multiple triggers as precipitators of the reported allergic episode.

Table 1. Breakdown of food-related triggers by category

Trigger (provided by reporting school/district)	Category
a nut bar from vending machine	Nuts
almonds	Nuts
almonds	Nuts
ate a cookie	Nuts
ate a cookie w/ peanut butter in it, she thought it was peanut free	Peanut ³
ate walnut	Tree nuts
ate walnut	Tree nuts
ate whole cookie with nuts	Nuts
Avocado	Fruit
banana bread	Fruit or nuts
Bananas	Fruit
blueberries - ingredient present in drink	Fruit
Brussel sprout	Vegetable
Butter pecan pancakes (tree nut/peanut allergy)	Tree nuts or peanut
Butterfinger candy- student has peanut allergy	Peanut ³
candy (wheat)	Candy
cashew	Nuts
cashew	Nuts
cashew	Nuts
cashew	Nuts
Cashew Milk	Nuts
cashew/nuts in a breakfast bar	Nuts
cashews and almonds	Nuts
chicken nuggets	Meat
Chicken per computer records	Meat
Chinese Food	Chinese Food
chocolate, peanuts	Peanut ³
cinnamon in chocolate donut	Spice
coconut oil from lotion	Fruit
coffee (flavored)	Caffeine or flavoring
crunch bar from cafeteria	Chocolate
Del Monte diced pears in cup	Fruit
dried squid	Seafood
Egg in pizza crust	Eggs
egg, pasta, cheese stick, breadstick at lunch	Egg, flour, dairy
Ferrero Rocher chocolate with nuts	Chocolate with nuts
fish	Fish ²
fish	Fish ²

fish	Fish ²
fish	Fish ²
Fruit Loops	Flour, flavoring or food color
given a peanut in a bag that contained tree nuts by another student	Peanut ³
Gold fish crackers	Wheat flour, milk, cheese
Granola bar (peanut)	Peanut ³
granola bar with almonds	Nuts
ingested a peanut m&m	Peanut ³
kiwi	Fruit
kiwi	Fruit
Mango	Fruit
No known allergies. Ate pizza and a banana prior to symptoms	Cheese, meat, fruit
Nutella	Nuts
Nutella	Nuts
Nutella	Nuts
nuts	Nuts
Nuts	Nuts
other student eating a peanut butter sandwich	Peanut ³
peanut butter	Peanut ³
Peanut butter	Peanut ³
peanut butter	Peanut ³
peanut butter	Peanut ³
peanut butter sandwich	Peanut ³
Peanut - on peanut challenge with allergist	Peanut ³
peanut, sesame, shellfish	Peanut, seeds, shellfish
peanut, tree nut, or egg	Peanut, nuts, eggs
Peanut - possible peanuts in granola bar ingested	Peanut ³
peanuts	Peanut ³
peanuts	Peanut ³
peanuts	Peanut ³
peanuts	Peanut ³
peanuts	Peanut ³
peanuts	Peanut ³
peanuts	Peanut ³
peanuts - but had no known consumption	Peanut ³
peanuts (assumed)	Peanut ³
peanuts (granola bar)	Peanut ³
Peanuts in a bag of popcorn from home.	Peanut ³
Peanuts, tree nuts, dairy, shell fish - not sure which one	Peanut, nuts, dairy, shellfish
peanuts/tree nuts	Peanut or nuts

Pecan Bread	Nuts
pecans were in granola	Nuts
pineapple juice	Fruit
pomegranate seeds	Fruit
possible	Unknown
possible Nutrigrain bar	Grains or fruit
possible pistachios	Nuts
possible school pizza	Flour, meat, cheese
possibly a fry wedge potato that had pepper sauce	Vegetable or spice
possibly due to staffs previous history of pineapple, avocado, kiwi allergies	Fruit
Possibly Oats 'n Honey bar	Oat
Pulparindo (Mexican candy)	Candy or spice
Quaker Oats chocolate chip chewy granola bar; mgr in facility w/ peanuts	Oat or chocolate
seafood/shellfish	Seafood or shellfish ²
sesame	Seeds ¹
She had just eaten almonds and... (illegible)	Nuts
shellfish	Shellfish ²
Shrimp	Seafood
Snickers bar that he ate at a track meet last night	Chocolate or peanut
something containing Casein	Dairy
States he eaten a hand full of peanut butter M&Ms	Peanut ³
student reports reaction while eating & thinks it was due to food	Unknown
student thought salad dressing she had at lunch	Dairy or flavoring
Sunbutter sandwich	Seeds ¹
suspect almonds or cashews	Nuts
unknown	Unknown
unknown	Unknown
unknown	Unknown
unknown	Unknown
Veggie sticks with ranch flavoring. Student is allergic to dairy.	Dairy
Walnuts (per parent report)	Nuts
wheat	Wheat

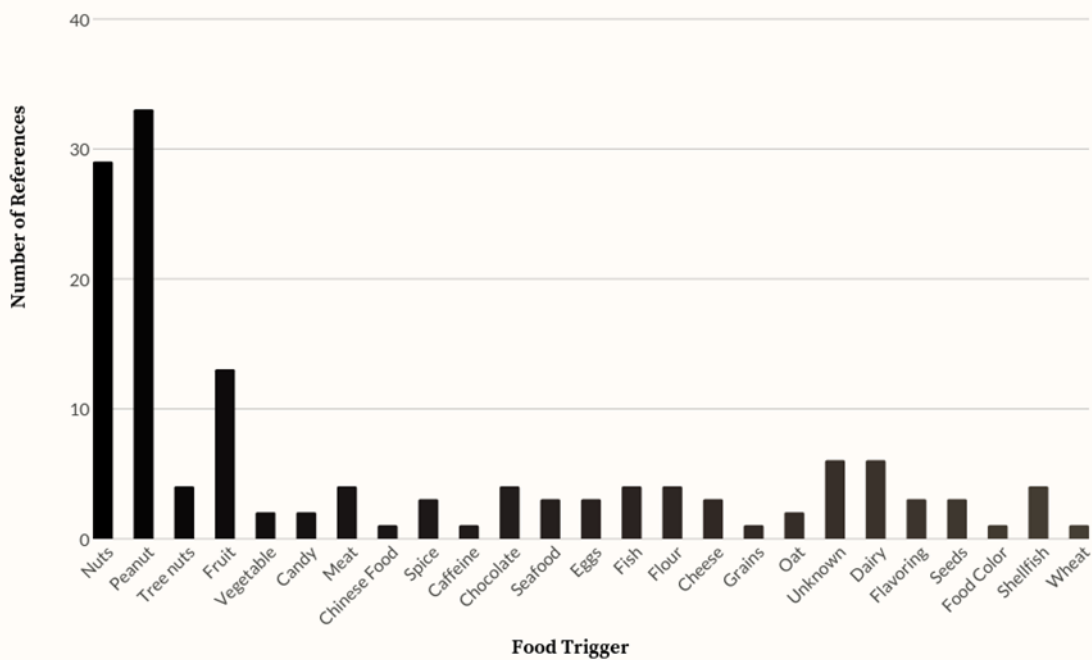
¹ Seeds (not sunflower seeds, etc.) is the appropriate category to capture all variations where noted.

² Fish (not seafood) is the appropriate category to distinguish between fish and shellfish where noted.

³ Peanuts are considered to be legumes in the same category as peas and lentils, but legumes is more of a biological category not utilized in the interest of consistency.

Details on the type of food trigger were given for 111 of the 120 reports citing food-related triggers. More than 60 (54 percent) of the 111 given explanations for food trigger listed peanuts, tree nuts, or products containing nuts as the trigger that caused allergic reaction. Some of the listed food triggers were unknown and/or assumed so we cannot say with certainty what exactly the trigger was.

Figure 3: Breakdown of Possible Food-Related Triggers by Category



- All specified triggers were categorized, revealing that peanuts/nuts caused the highest percentage of reactions.
- Each trigger was given one count when an entity listed multiple possible triggers.

Table 2. Breakdown of listed responses in drug-related triggers

Trigger (provided by reporting school/district)	Category
Motrin	Over-the-counter anti-inflammatory drug
Sulfate	Prescription drug
Cechlor	Prescription drug
Clindamycin	Prescription drug
Amoxicillin	Prescription drug
Keflex vs. diet pill	Prescription drug or over-the-counter appetite suppressant
Minocycline or tretinoin	Prescription drug or topical cream

Table 3. Breakdown of listed responses in insect-related triggers

Trigger (provided by reporting school/district)	Category
Bee or wasp	Bee or wasp
Bee/yellowjacket?	Bee
Possible bee sting	Bee

Table 4. Breakdown of listed responses in other triggers

Trigger (provided by reporting school/district)	Category
unknown, parent reported same incident happened at bus stop 4/16/19	Unknown
Suspect environmental trigger (diagnosed with dust, mold pollen, insect bite allergy)	Environmental
Unknown - previous allergy to almonds reported	Unknown
unknown, previously allergic to tree nuts and peanuts documented	Unknown
stress, heat	Weather-induced reaction
Unknow- school unable to collect proper documentation from MD and parent	Unknown
Unknown	Unknown
Not sure. Does not have "known allergies." Was playing outside when symptoms began.	Unknown
Unknown - has history of hives, allergic reaction without identified cause	Unknown
came into office with wheezing and retractions	Unknown
severe to dog, cats, pollen, trees	Environmental
Unknown - school has not received appropriate documentation from parent or MD	Unknown

Unknown - suspected peanut butter (student had consumed at home)	Unknown
Unknown	Unknown
unknown - only known allergen to dust	Unknown
unknown; no known allergies	Unknown
Unknown - student consumed banana nut muffin for breakfast	Unknown
lotion	Cosmetic
student thinks it was caused by a new lotion	Cosmetic
unknown	Unknown
Possibly laundry detergent	Detergent
Unknown - possibly cinnamon	Unknown
Unknown - no changes in food history	Unknown
Unknown	Unknown
Unknown	Unknown
Unknown	Unknown
Unknown trigger, possible food as student was in chef's class	Unknown
Unknown at this time	Unknown
unknown	Unknown
unknown	Unknown
unknown	Unknown
unknown - possibly pool water	Unknown
unknown	Unknown
unknown	Unknown
Unknown	Unknown
unknown - still trying to determine cause	Unknown
Unknown - was working in the kitchen	Unknown
accidental injection	Accidental
unknown	Unknown

Many of the listed responses for other triggers were unknown. There was one instance in which epinephrine was used due to an accidental injection. One report listed possible fumes from paint along with food allergies as a possible trigger.

Location of symptoms

The location of where symptoms developed was listed as within a school building in 90 percent (n=158) of reports. The location of the incident was not identified in five cases.

Four percent (n=8) of reports showed symptoms developing on school grounds.

Time of day for reported cases

The higher volume of cases took place in the morning (n=91) with 52 percent of the cases. Afternoon incidents accounted for 46 percent (n=81). There were two cases that did not provide a time for the report.

Dosage administration

Registered nurses administered the undesignated epinephrine in 83 percent of the cases. Ten percent of administrations were done by trained personnel, less than 1 percent of administrations were done by students, and 4 percent listed other as the type of person administering the epinephrine. Comments provided in the reports specify details about other people who administered. Several reports showed self-administration, one report lists the student's mother as administrator, and a licensed practical nurse is also listed as an administrator.

Epinephrine policy reports

A school or district that institutes a policy or program offering undesignated epinephrine, revises an existing policy or program, or contracts with a student transportation company that has instituted such a policy and program must notify ISBE. Districts or schools that had neither a program to provide undesignated epinephrine nor a separate contracted student bus transportation company that offered the same did not need to report. Ten reports were received. Four reports stated that their district or school had an undesignated epinephrine policy during any part of the 2018-19 or earlier school year. Entities were asked how many doses were maintained at their facility. One report stated that they kept one dose per school, for a total of four in their district. Another reported that two doses were maintained. Another district reported that 84 doses are maintained within the district. There were zero reports of districts having independent contractors providing student transportation who maintained a supply of undesignated epinephrine auto-injectors.