



# Annual School Health Services Report

2018-19 School Year

Tennessee Department of Education | October 2019



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# Introduction

Coordinated School Health (CSH) surveys public and private school systems annually to monitor compliance with state school health laws and to assess the scope of school health services provided to Tennessee public school students as mandated in T.C.A. § 49-50-1602. One hundred and forty-two (142) local education agencies (LEAs) returned their survey for inclusion in this report. Due to the limited response rate of private schools, the data for those schools are not represented in this report.

## ***Public School Data***

Wellness issues of students are supervised by licensed school nurses with the goal of appraising, protecting, and promoting health needs. School nurses aim to increase student time in the classroom and decrease the time out of school. Services provided by the school nurse include, but are not limited to, assessment, planning, care-coordination, and direct care to all students including those with special needs or conditions. Also, the school nurse has the responsibility of collaborating with and/or referring students to community health care professionals to:

- ensure early intervention for mental and physical health care needs;
- ensure access and referral to primary care services;
- foster appropriate use of primary health care services;
- prevent and control communicable diseases and other health problems;
- provide emergency care for students and staff illness and injury;
- provide daily and continuous services for children with special health care needs;
- promote and provide optimum sanitary conditions for a safe school facility and school environment; and
- provide education and counseling opportunities for promoting and maintaining individual, family, and community health.

In addition, many services are provided by licensed and qualified professionals such as physicians, psychiatrists, psychologists, dentists, health educators, registered dietitians, school counselors, and allied health professionals (e.g., speech therapists, occupational therapists, and physical therapists).

# 2018-19 School Health Services Highlights

## Student Diagnoses

During the 2018-19 school year, **210,921** students in Tennessee public schools had a chronic illness or disability diagnosis reported by a medical provider.

### **Number of Public School Students and Percent of Total by Chronic Illness or Disability Diagnosis, 2018-19**

Chronic Illness or Disability Diagnosis	Number of Students 2018-19	Percent of Total
Asthma	82,497	37.24%
ADHD	43,166	19.49%
Severe Allergy	30,637	13.38%
Mental Health	14,288	6.45%
Intellectual Disability	14,605	6.59%
Other (Cerebral Palsy, Sickle Cell, Cystic Fibrosis)	13,873	6.26%
Autism	11,695	5.28%
Seizure Disorder	6,958	3.14%
Diabetes	3,782	1.71%
<b>Total</b>	<b>221,501</b>	<b>100%</b>

### **Number and Percent Change of Public School Students by Selected Chronic Illness or Disability Diagnosis between 2004-05 and 2018-19**

Chronic Illness or Disability Diagnosis	Number of Students 2004-05	Number of Students 2018-19	Percent Change
ADHD	19,939	43,166	+116%
Asthma	38,676	82,497	+113%
Diabetes	2,388	3,782	+58%
Other (Cerebral Palsy, Sickle Cell, Cystic Fibrosis, etc.)	14,536	13,873	-5%
<b>Total</b>	<b>75,539</b>	<b>143,318</b>	<b>+90%</b>

*Note: The only chronic health conditions reported in the 2004-05 school year were ADHD, Asthma, Diabetes, and Other (Cerebral Palsy, Sickle Cell, Cystic fibrosis, etc.)*

## Allergies

There were **30,637** students diagnosed with allergies in Tennessee public schools during the 2018-19 school year. School districts across Tennessee have reported that there is a dramatic increase in the number of students who are diagnosed with severe allergies. Staff members are choosing to obtain education regarding the signs and symptoms of anaphylactic reactions and how to administer the emergency medication, Epinephrine.

Types of Epinephrine Use	2009-10	2018-19	Percent Change
Number of students who have Epi-Pens® available at schools	6,230	11,140	+79%
Number of students who required administration of the Epi-Pen®	95	189	+99%
Number of teachers/staff trained to administer an Epi-Pen® if needed	19,240	53195	+176%

### *Type, Number, and Percent of Allergies, 2018-19*

Type of Allergies	Number of Allergies	Percent of Total
Environmental	42,190	35.59%
Other	31,817	26.84%
Nuts	16,974	14.32%
Insects	12,248	10.33%
Shellfish	6,109	5.15%
Eggs	4,001	3.38%
Latex	2,828	2.39%
Dye	2,374	2.00%
<b>Total</b>	<b>118,541</b>	<b>100%</b>

### *Type, Number, and Percent Change of Allergies 2010-11 and 2018-19*

Type of Allergies	Number of Allergies 2010-11	Number of Allergies 2018-19	Percent Change
Environmental	26,785	42,190	+57.51%
Other	31,610	31,817	+0.65%
Insects	7,737	12,248	+58.30%
Nuts	7,319	16,974	+131.92%
Shellfish	2,254	6,109	+171.03%
Eggs	1,831	4,001	+118.51%
Dye	1,720	2,374	+38.02%
Latex	1,459	2,828	+98.83%
<b>Total</b>	<b>80,715</b>	<b>118,541</b>	<b>+46.86%</b>

**75%** of all public school districts chose to maintain epinephrine auto-injectors in at least two unlocked, secure locations with the intent to be administered to any student believed to be having a life-threatening anaphylactic reaction.

## ***Asthma***

Asthma continues to be the number one chronic illness causing student absenteeism. A continuing concern based on health services trend data is the issue of ensuring that students with asthma are receiving the support they need to effectively manage their medical condition so students stay safe and can attend school ready to learn. Specific areas of concern include the availability of school nurses to respond to an emergency involving an asthmatic student, the development of individual and school-level action plans for all diagnosed students, and the provision of asthma education to students. The following are data support this concern.

### ***Asthma in Schools, 2018-19***

<b>Item</b>	<b>Percentage</b>
Students diagnosed identified as having an individualized action treatment plan	44%
<b>47,479</b> teachers, coaches, and other school personnel trained in asthma education	10% increase from previous year
Students diagnosed with asthma, receiving asthma education	21%
Students diagnosed with asthma who have a prescribed emergency medication available at school	24%

## ***Diabetes***

### ***Number of Students Diagnosed with Type I or Types II Diabetes by Grade Level, 2018-19***

<b>Grade Level</b>	<b>Number of Students Type I Diabetes</b>	<b>Number of Students Type II Diabetes</b>
Pre-school	58	2
Kindergarten	84	1
Grades 1-5	624	56
Grades 6-8	746	211
Grades 9-12	1377	432
<b>Total</b>	<b>2841</b>	<b>695</b>

**Glucagon in Schools, 2018-19**

Item	Percentage
Percentage of students with a Glucagon order who received a Glucagon® injection while at school	0.008%
Percentage of students who had an unexpired Glucagon available at school that was provided by the parent/guardian	57%
Percentage of schools that have a full-time nurse assigned to the school because of a student(s) with Type I diabetes	5%
Percentage of schools that reported that they have a policy that allows trained volunteers to administer Glucagon® in schools	73%

**Seizure Disorders**

The amount of public school students with the diagnosis of seizures continues to rise as well as the number of students who have the emergency medication Diastat® available at school. Education and training of non-medical staff members for administering Diastat® has increased.

Item	Number/Percentage
School nurses assigned to a specific school to serve as a full-time nurse due to an order for seizure emergency medication	103
LEAs that call 911 immediately as standard protocol when Diastat® was administered	98%
LEAs that report 911 serves as standard protocol if no nurse is available to administer the emergency medication Diastat®	99%

# Health Services Provided in Tennessee Schools

The most common types of health services provided to students by a licensed health care provider in Tennessee public schools include:

- care of ill/injured students and staff,
- skilled nursing skills to students with health needs in general education,
- skilled nursing skills to students with special needs with an IEP,
- medication administration to students,
- body mass index (BMI) screening, and
- vision, hearing, blood pressure, scoliosis, and dental screenings.

The most common types of health services provided by unlicensed health care providers in Tennessee schools include:

- vision screenings,
- hearing screenings,
- medication administration,
- scoliosis screenings,
- dental screenings, and
- BMI screenings.

## **School Nurses**

Tennessee school districts hire nurses to serve the general and special education student populations. During the 2018-19 school year, **1,734** school nurses worked in Tennessee public schools. Out of the **142** public school districts in Tennessee that answered this question on the survey, **60%** employed a nurse full-time in their school. Of the public school nurses, **65%** held a registered nurse or higher degree, while **35%** were licensed practical nurses (LPNs).

## **Return to Class**

During the 2018-19 school year, there were **5,091,191** student visits to a public school nurse. **87%** of nurse visits resulted in the student returning to class.

## **Emergencies**

There were **2,977** automated external defibrillators (AEDs) reported in the 2018-19 public school system. There were **2,723** emergency 911 calls when a school nurse was in

the building and **699** emergency 911 calls when a school nurse was not in the building.

## **Medications**

There were **2,177,752** medication doses administered to students in Tennessee public schools during the 2018-19 school year. In addition, there were **383,340** clinic visits that resulted in the administration of insulin and **407,711** diabetic visits that did not result in insulin administration.

All medications except those designated by an individual healthcare plan (IHP) must be maintained in a secure location under the supervision of a school nurse and/or other school personnel who have been oriented/trained and assigned to handle medications and record keeping per state guidelines.

All public school districts reported that medications were locked in a secure storage location.

Type of Medication Administered 2018-19	Number of Medication Doses Administered Daily	Number of Medication Doses Administered on an As-Needed Basis	Total Number
<b>Oral</b>	1,414,732	446,442	<b>1,861,174</b>
<b>Inhaled</b>	48,741	95,617	<b>144,358</b>
<b>Topical</b>	6,790	117,271	<b>124,061</b>
<b>Ophthalmic and Otic</b>	15,523	19,191	<b>34,714</b>
<b>Parenteral Medications Other than Insulin or IV</b>	6,281	1,693	<b>7,974</b>
<b>Intranasal</b>	3,615	1,839	<b>5,454</b>
<b>Rectal</b>	10	7	<b>17</b>
<b>Total</b>	<b>1,495,692</b>	<b>682,060</b>	<b>2,177,752</b>

## ***Student Health Screenings***

Every year, parents of Tennessee public school students are notified by school staff of the availability of free student school health screenings.

Why should we screen students for health concerns?

- According to the Centers for Disease Control and Prevention (CDC), healthy children learn better. For example, if a child cannot hear very well, it will be difficult for him or her to concentrate on school work. Likewise, if a student cannot see the board where the teacher writes lesson notes, then it will be difficult for him or her to comprehend a classroom lesson.
- When a health concern is identified early through a regular school health screening, steps can be taken to access needed health care so that health and academic issues do not develop into serious problems.
- All parents are given the opportunity to exclude their child from screenings if they wish to not take advantage of these services.
- According to the *Tennessee School Health Screening Guidelines*, students in grades pre-K, K, 2, 4, 6, and 8 are screened annually for vision and hearing.
- Students in grades K, 2, 4, 6, 8, and one year of high school (usually in Lifetime Wellness class) are screened for blood pressure and body mass index (BMI) in addition to vision and hearing.
- School staff members are encouraged to screen students for oral health problems and screen sixth grade students for scoliosis.

**Type and Number of Students Screened, Referred to a Healthcare Provider and Confirmed Follow-ups by School Staff as a Result of School Health Screening Programs  
2018-19 Public Schools**

Type of Health Screening	Number of Students Screened	Number of Students referred to Healthcare Provider	Number of Confirmed Referral Follow-ups by School Staff	Percentage Confirmed
Vision	336,838	33,923	12,134	35.77%
Hearing	338,659	6,774	1,481	21.86%
Body Mass Index (BMI)	327,555	24,896	193	.078%
Blood Pressure	313,163	10,441	1,632	15.63%
Dental	60,191	11,434	7,603	66.49%
Scoliosis	24,619	1,964	172	8.76%
<b>Total</b>	<b>1,401,025</b>	<b>89,432</b>	<b>23,215</b>	<b>25.96%</b>

***Health Care Procedures Performed at School***

During the 2018-19 school year, **35,861** public school students received a procedure on a daily or routine basis at school from a licensed health care professional. The most frequent procedures performed by licensed health care professionals were:

- clean intermittent catheterizations,
- nebulizer treatments, and
- diabetic care.

During the 2018-19 school year, **2,588** students performed their own procedure on a daily or routine basis at school without assistance. Frequent procedures performed by students without any assistance were:

- carbohydrate counting,
- blood glucose testing,
- insulin pump management, and
- urine ketone testing.

During the 2018-19 school year, **248** students received a procedure on a daily or routine basis at school from an unlicensed health care professional. The most frequent procedures performed by unlicensed health care professionals were:

- carbohydrate counting,
- blood glucose testing, and
- insulin pump management.

**Number and Type of Personnel Trained Annually to Administer Medications 2018-19**

<b>Personnel Trained Annually to Administer Medications</b>	<b>Number</b>	<b>Percent of Total</b>
Teachers	12,667	69.45%
Secretaries	2,350	12.89%
Teaching Assistants, Nurse Assistants, School Health Aides	27	0.15%
Other	936	5.13%
Licensed Practical Nurses (LPNs)	623	3.42%
Principals/Assistant Principals	1,210	6.63%
School Counselors	425	2.33%
<b>Total</b>	<b>18,238</b>	<b>100%</b>

**Head Injury/Concussions**

**98%** of all public school districts have adopted guidelines and policies concerning the nature, risk, and symptoms of concussion and head injury. Two districts answered “no,” and one district did not answer.

**HIV and Blood-borne Pathogens Training**

**99%** of school districts provided HIV and blood-borne pathogens training to school staff.

**Cardio-Pulmonary Resuscitation (CPR) (T.C.A. §49-5-414)**

**23,521** full-time school employees were certified in CPR. **25%** schools provided CPR to students (T.C.A. §49-5-414), and **55,995** students were trained in CPR.

**Automated External Defibrillators (AED)**

**99%** of Tennessee public schools that reported having an automated external defibrillator (AED). An AED was reported that it was implemented with CPR started **26** times in the 2018-19 school year.

**Immunizations and Meningococcal Information to Parents**

Public school districts, **100%** districts report that they require proof of immunization prior to new student admission to any public school, nursery school, kindergarten, pre-school, or daycare and provide special provisions for homeless children (T.C.A. §49-6-5001). **98%** shared Meningococcal vaccine information with parents.

**School-Based Clinics**

In 2018-19, **5,094** EPSDTs (well child exams) were provided to Tennessee students either by a school clinic practitioner, a private provider in the schools, or a county health department via school transport.

**Various School-Based Clinic Indicators, 2018-19**

School-Based Clinic Indicators	Number/Percentage
Number of schools with clinics	269
Number of students served in school clinics (physical health only)	28,851
Number of students served in school clinics (mental health only)	1,271
Referrals to other health care providers	17%
Referrals "confirmed" by clinic staff	41%
Number of students receiving behavioral health services in school-based/school-linked clinics	1,271
Number of school clinics utilizing tele-medicine	12%
Clinics providing care to staff as well as students	77%
Clinics providing immunizations to students	22%
Survey respondents said their school districts planned to open new clinics during this school year	33