



Annual School Health Services Report

2023-24 School Year

Tennessee Department of Education | October 2024



Cover Image Courtesy of Henderson County Schools

Table of Contents

Introduction	3
Summary	3
Role of the School Nurse.....	3
2023-2024 Results	5
School Nurse Profile	5
Public Schools.....	5
Non-Public Schools	6
Student Health.....	7
Chronic Health Conditions	7
Student Health Encounters and Return to Class	15
Health Screenings	16
Health Care Procedures	18
Medication Management	19
School Health Clinics.....	24
Immunization and Meningococcal Information to Parents	26
Conclusion.....	27
References	28

Introduction

Tennessee Coordinated School Health connects physical, emotional, and social health with education through eight interrelated components. This coordinated approach improves students' health and their capacity to learn through the support of families, communities, and schools working together. Health Services, one of the eight components, bridges healthcare and education through the provision of care coordination, advocacy for quality-student centered care, and collaboration. Access to school health services is associated with better health for students and is linked to academic success.

The Tennessee Department of Education surveys public and non-public accredited schools annually to monitor compliance with state school health laws and to assess the scope of school health services provided to Tennessee students as mandated in Tenn. Code Ann. § 49-50-1602(a)(4).

The Annual School Health Services Report highlights the data submitted to the Tennessee Department of Education by public school districts and non-public schools. This report summarizes the healthcare needs of Tennessee students and health services provided by school nursing staff during the 2023-24 school year.

Summary

Data was collected through the administration of the annual Health Services Survey. The data reveals school nurses perform a wide range of duties—health education, direct care, case management, program and policy development and oversight—supporting students whose health needs vary from routine to serious and complex. Additionally, some school nurses provide services to school faculty and staff.

Role of the School Nurse

Tennessee school nurses are assigned a varying case load dependent upon school district resources. School nurses aim to increase student time in the classroom and decrease the time out of school. School nurses serve as:

Clinicians: providing medical care and support for students who are ill, injured, or have chronic health conditions;

Leaders: providing support to parents, students, and staff to improve health programs and policies to support a healthy school environment;

Educators: providing health education to students and staff to prevent disease and injury and support school attendance; and

Advocates: providing coordination of health services policies and programs as the on-site health resource.

The National Association of School Nurse's *Framework for 21st Century School Nursing Practice* highlights the key principles and components of current day, evidence-based school nursing practice. The Framework creates an overarching structure that includes concepts integral to the complex clinical specialty practice of school nursing, with student-centered nursing care central to success. The key principles are Standards of Practice, Care Coordination, Leadership, Quality Improvement, and Community/Public Health. School nurses use the skills outlined in the components of each principle daily to help students be healthy, safe, and ready to learn (National Association of School Nurses, 2024).

Figure 1: School Nursing Practice Framework

School Nursing Practice Framework™

Supporting Students to be Healthy, Safe and Ready to Learn



Care Coordination

- Provide direct care for emergent, episodic, and chronic mental and physical health needs.
- Connect student and family to available resources.
- Collaborate with families, school community, mental health team (including school counselors, social workers, and psychologists), and medical home.
- Develop and implement plans of care.
- Foster developmentally appropriate independence and self-advocacy.
- Provide evidence-based health counseling.
- Facilitate continuity of care with family during transitions.

Leadership

- Direct health services in school, district, or state.
- Interpret school health information and educate students, families, school staff, and policymakers.
- Advocate for district or state policies, procedures, programs, and services that promote health, reduce risk, improve equitable access, and support culturally appropriate care.
- Engage in and influence decision-making within education and health systems.
- Participate in development and coordinate implementation of school emergency or disaster plans.
- Champion health and academic equity.
- Share expertise through mentorship/preceptorship.
- Practice and model self-care.

Quality Improvement

- Participate in data collection for local, state, and national standardized data sets and initiatives.
- Transform practice and make decisions using data, technology, and standardized documentation.
- Use data to identify individual and population level student needs, monitor student health and academic outcomes, and communicate outcomes.
- Engage in ongoing evaluation, performance appraisal, goal setting, and learning to professionalize practice.
- Identify questions in practice that may be resolved through research and evidence-based practice processes.

Community/Public Health

- Provide culturally sensitive, inclusive, holistic care.
- Conduct health screenings, surveillance, outreach, and immunization compliance activities.
- Collaborate with community partners to develop and implement plans that address the needs of school communities and diverse student populations.
- Teach health promotion, health literacy, and disease prevention.
- Provide health expertise in key roles in school, work, and community committees/councils/coalitions.
- Assess school and community for social and environmental determinants of health.

The school nurse has the responsibility of collaborating with and/or referring students to community health care professionals by

- Providing assessment and referral, ensuring early intervention for identified physical and mental health needs;
- Providing health education and health counseling;
- Preventing and responding to communicable disease outbreaks;
- Developing and implementing plans for emergencies and providing emergency care for students and staff illness and injury;
- Providing first aid for minor, non-life-threatening injuries,
- Planning and providing specialized clinical services and related health instruction;
- Providing medication and health care procedure oversight; and
- Assuring a safe and healthy school environment.

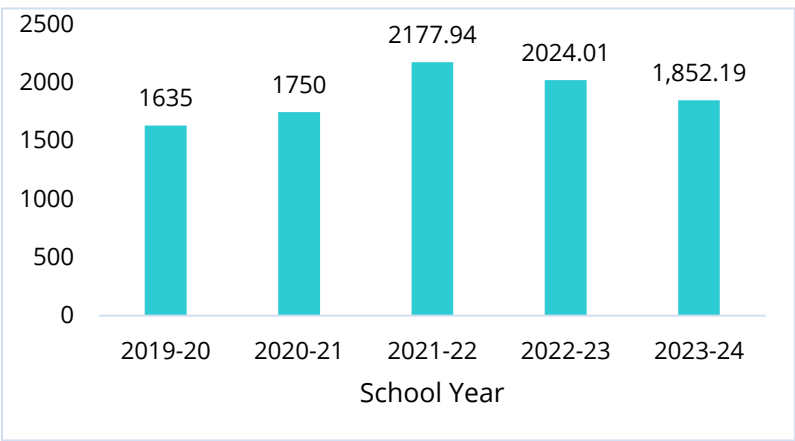
2023-24 Results

School Nurse Profile

It is the position of the National Association of School Nurses (NASN) that access to a registered professional nurse all day, every day, can improve students' health, safety, and educational achievement. Student acuity and school community indicators should be assessed to determine appropriate staffing levels. Access to a school nurse may mean that more than one school nurse is necessary to meet the needs of the school population. (National Association of School Nurses, 2020). The American Academy of Pediatrics (2016) recommends a minimum of one full-time professional school nurse in every school.

School nurses in Tennessee are Registered Nurses (RN) or Licensed Practical Nurses (LPN) with varied

Figure 2: School Nurse FTEs in Public School Districts by School Year



educational preparation, including Doctor of Nursing Practice (DNP), Bachelor of Science in Nursing (BSN), Master of Science in Nursing (MSN), or Associate Degree of Nursing (ADN).

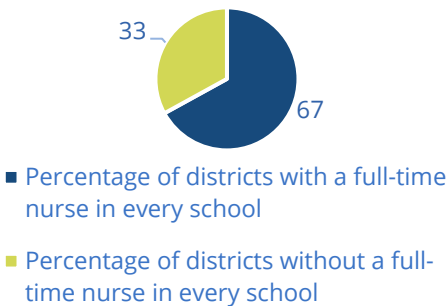
Public School Districts

Tennessee public school districts hire nurses to serve the general and special education student populations. Funding for nurses is provided in the TISA base, which reflects funding to match the

national recommendation for nurses (1 for every 750 students). Additionally, a licensed health care professional must perform any health care procedure a student is not capable or competent to perform in accordance with applicable guidelines of their respective regulatory boards. During the 2023-24 school year, **1,852.19** full-time school nurses (or full-time equivalents) provided healthcare services to students in Tennessee public school districts (Figure 2). Nearly **five percent** of school nurses (full-time equivalents) provided care only to special education students.

During the 2023-24 school year, **33 percent** of public-school districts reported not having a full-time nurse

Figure 3. Percentage of Public-School Districts with or without a Full-Time Nurse, 2023-24

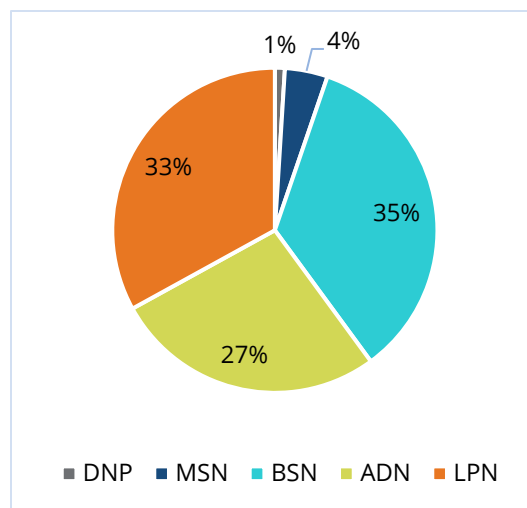


in at least one school, and **17 percent** of public schools do not have a full-time nurse during the school day (Figure 3). Furthermore, **37 percent** of public-school districts report having at least one school nurse assigned to multiple schools. Despite **67 percent** of public-school districts having a full-time nurse in every school, nurses were still pulled from their assigned location(s) **12,228** times to take care of an immediate need at another school/location other than the nurses' assigned school(s)/location(s).

Health Office Composition

It is the position of the NASN that the RN collaborates to lead the school health services team in the identification of and intervention for health-related barriers to improve student learning. The school health team, led by the RN, provides support for positive student academic and health outcomes. Members of the team vary and may include LPNs, Unlicensed Assistive Personnel (UAP), district consulting physicians, and other unlicensed professionals (health aides, medication aides, etc.) who provide services to students to meet increasing numbers and acuties of healthcare needs. Being knowledgeable of the Rules and Regulations pertaining to the Tennessee Board of Nursing and Tennessee laws and rules that guide the delivery of school health services ensures team members work within their scope of practice. Together, team members' combined efforts aim to improve student outcomes (National Association of School Nurses, 2020).

Figure 4: Percentage of Public School Nurses by Degree, 2023-24



Sixty-two percent of public-school nurses, including nurses that serve the general student population and nurses that provide related services, have an associate (ADN) or bachelor's degree (BSN) in nursing. **Five percent** of Tennessee public school nurses have an advanced nursing degree, Doctor of Nursing Practice (DNP), or Master of Science in Nursing (MSN). **Thirty-three percent** of public-school nurses are LPNs (Figure 4). LPNs practice under the direction and supervision of an RN, physician, or dentist and cannot practice independently in Tennessee.

Non-Public Schools

While Tennessee public school districts are required to provide a licensed health care provider to serve the health care needs of students, non-public schools are not. During the 2023-24 school year, only **53 percent** of non-public schools that submitted the survey reported having a school nurse (RN or LPN). There were **180.2** school nurses (or full-time equivalents) that provided care across **125** Tennessee non-public schools.

Student Health

Responding public school districts and non-public schools provided data on a variety of topics related to student health. The 2023-24 survey gathered information on the health care needs of students in public and non-public schools. The results are summarized below.

Chronic Health Conditions

Tennessee school nurses provide services to students with a wide range of mental and physical health needs. School nurses assess needs, complete health care plans, and provide instruction to meet the health needs of students with chronic health conditions. Children diagnosed with chronic illnesses have healthcare needs that require daily management in addition to addressing possible emergencies. Some students with chronic health conditions may miss school more often than others, and this may have an impact on academic performance (CDC, 2019). School nurses help students stay at school safely and ready to learn while providing services and accommodations for students with chronic health conditions.

During the 2023-24 school year, **163,791** students in public school districts and **14,673** students in non-public schools had a chronic illness or disability diagnosis. Figures 5 and 6 show the number of students in public school districts and non-public schools diagnosed with each chronic condition or disability.¹

¹The process of data collection for chronic health conditions changed in 2020-21. These rates of chronic illness and disability are based on information provided to the school nurse by the student's primary care provider or parent/guardian. Conditions that have not been medically diagnosed or do not require special nursing care in the school setting are not included in this report.

Figure 5: Number of Non-Public School Students with Chronic Illness or Disability Diagnosis, 2023-24

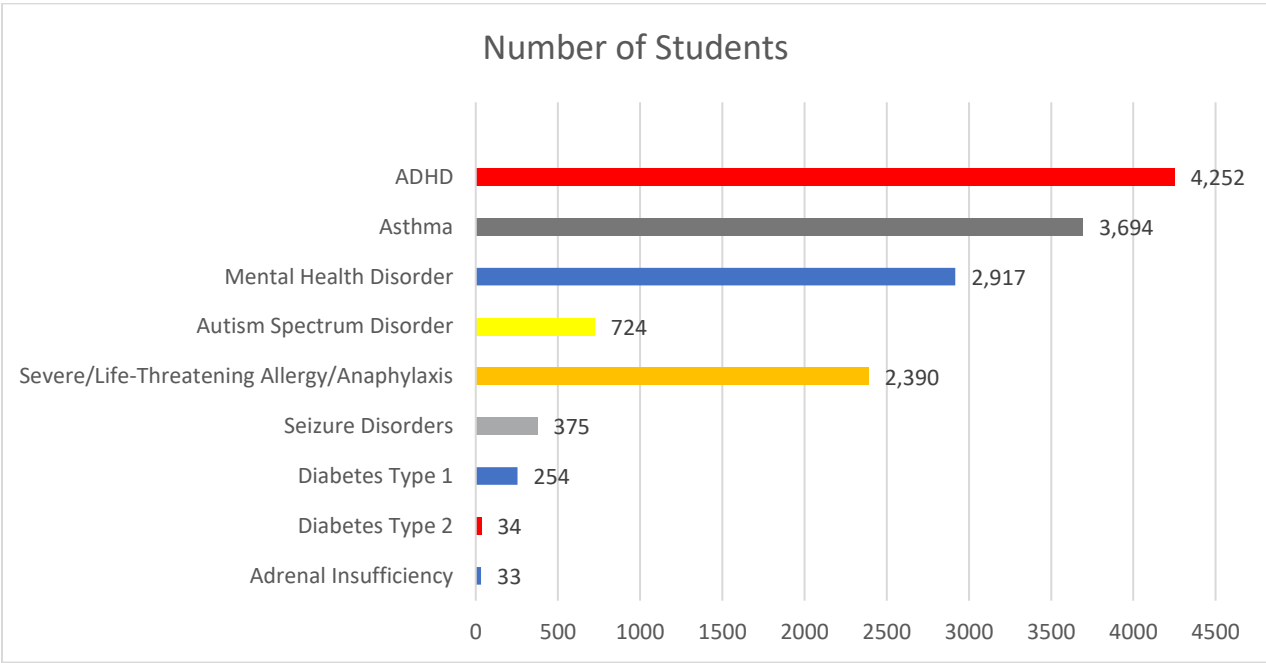
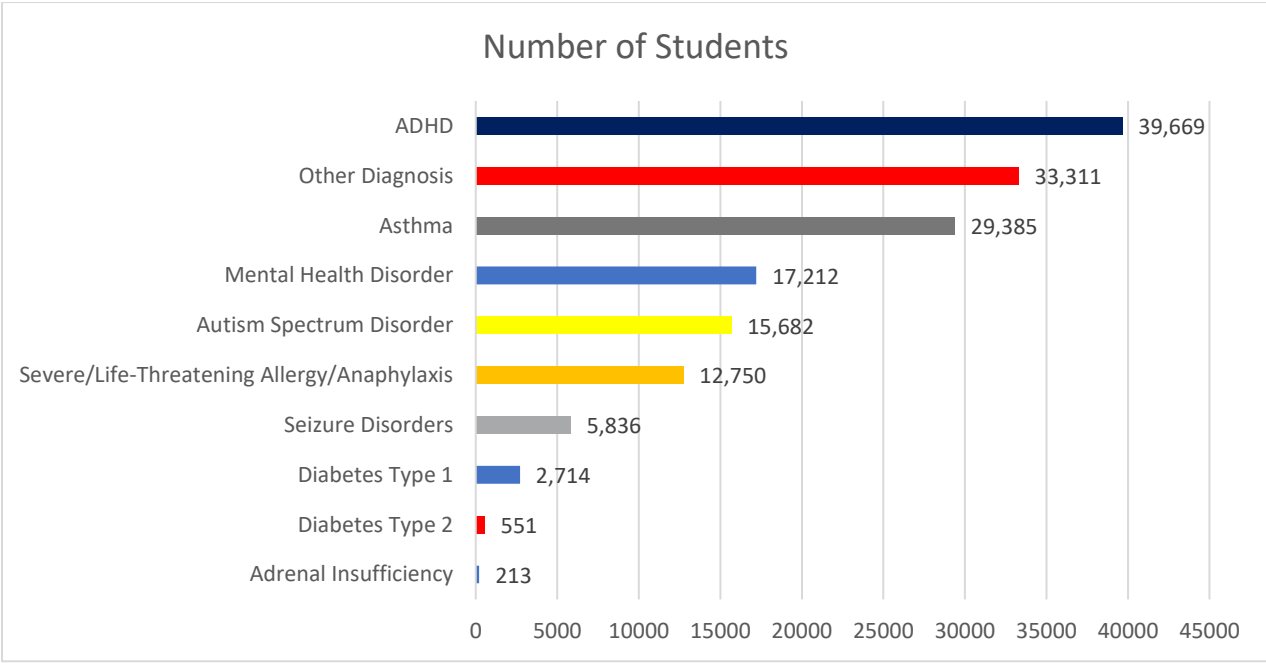


Figure 6: Number of Public-School Students with Chronic Illness or Disability Diagnosis, 2023-24



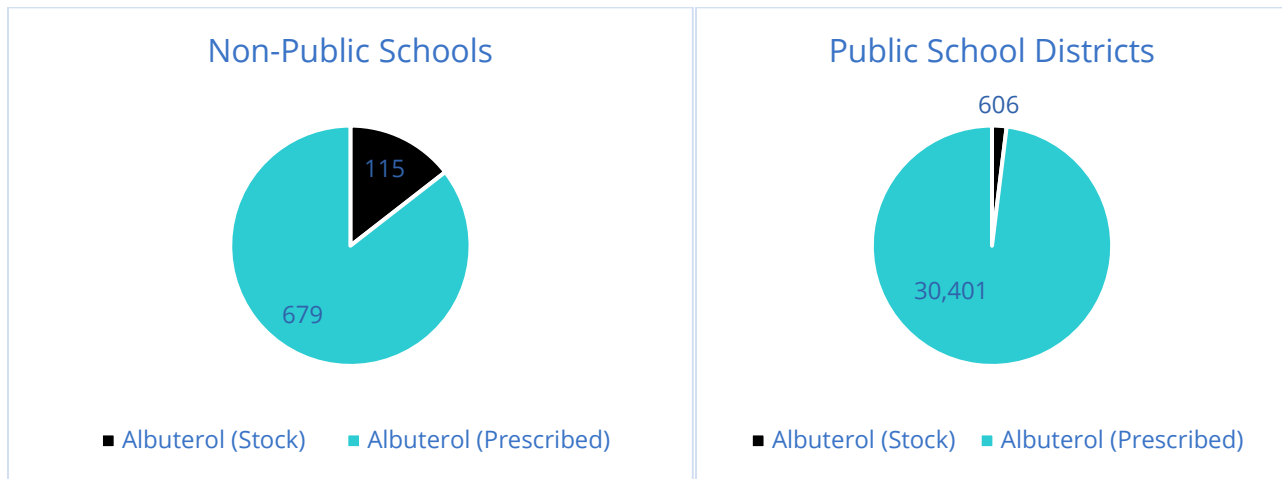
The conditions or disabilities highlighted below are the most prevalent chronic illnesses or disabilities in Tennessee schools and/or require daily care management and may require rescue medication due to the potential for a life-threatening emergency related to the condition.

Asthma

During the 2023-24 school year, **29,385** students were diagnosed with asthma in Tennessee public school districts, and **3,694** students were diagnosed with asthma in non-public schools. Asthma is the leading chronic physical health condition among students in Tennessee and a leading cause of school absenteeism (CDC, 2019; Healthy Schools Campaign, 2015). Asthma is a serious disease that affects the lungs. It can result in wheezing, difficulty breathing, and coughing. Asthma attacks can lead to increased emergency room visits and, rarely, death. Ensuring students with asthma receive the support they need to effectively manage their medical condition is pivotal. In the school setting, the school nurse plays an important role in providing asthma management, enabling students to stay safe and attend school ready to learn. School nurses spend more time in contact with children in comparison to all other health care professionals, allowing them to develop a thorough knowledge of each child's condition and promote self-management strategies.

Albuterol is a life-saving medicine used to treat students who experience asthma attacks or severe allergic reactions. It is the most effective and most common rescue treatment for asthma attacks. During the 2023-24 school year, albuterol was administered at school or during a school-sponsored function **31,007** times in public school districts and **794** times in non-public schools. Figure 7 indicates the number of times albuterol was administered using a student's prescription or using the school's supply (stock).

Figure 7: Number of Times Albuterol Was Administered to a Student During an Emergency, 2023-24



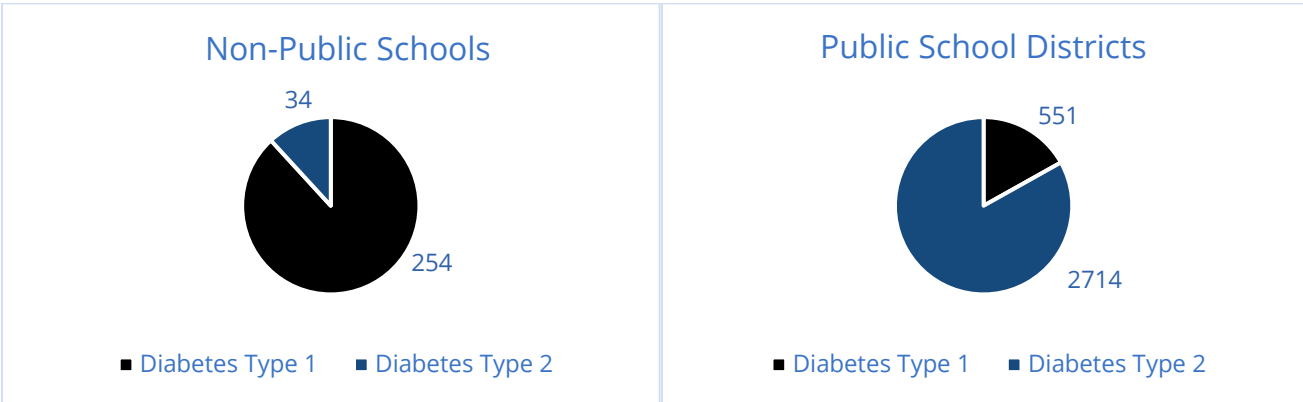
For additional information related to asthma management in the school setting, please view the [Healthcare Procedures Section](#).

Diabetes

Diabetes occurs when the body produces no, or insufficient quantities of insulin, so glucose, or sugar, builds up in the blood. High blood glucose, over time, can lead to health problems such as kidney failure, vision loss, heart disease, and stroke. Type 1 diabetes occurs when the body no longer produces insulin and blood glucose levels become very high. Type 2 diabetes occurs when the body stops producing enough insulin or when the body does not use insulin properly (American Diabetes Association, 2021). Diabetes can be managed effectively, and complications reduced with proper management and treatment.

The Individuals with Disabilities Education Act (IDEA), Section 504 of the Rehabilitation Act, and the Americans with Disabilities Act (ADA) give students the right to receive the diabetes care they need to be safe and participate in school activities like any other child. Schools provide trained staff to monitor blood glucose levels and administer insulin and glucagon, provide diabetes care during field trips, extracurricular events, and all school-sponsored activities, and allow capable students permission to self-manage their diabetes anytime, anywhere.

Figure 8: Number of Students with Diabetes by Type, 2022-23



During the 2023-24 school year, there were **3,265** students with diabetes in public school districts and **288** students in non-public schools with diabetes. Type 1 diabetes is most common among school-age children (Figure 9). School-age children with diabetes are at greater risk for death from acute complications of diabetes, including hypoglycemia and diabetic ketoacidosis (CDC, 2019). Diabetic Ketoacidosis is a serious, life-threatening condition that can lead to a diabetic coma or even death. This can happen when a student with diabetes produces high levels of blood acids, called ketones. Hypoglycemia, also known as low blood glucose, can cause symptoms such as poor judgment or even loss of consciousness. During severe hypoglycemia, a student cannot swallow glucose-containing drinks on his own to increase blood sugar levels. Glucagon, a hormone that raises blood glucose levels, is used to treat severe hypoglycemia, a medical emergency.

During the 2023-24 school year, Glucagon was administered during school or at a school-sponsored function **213** times in public school districts and **52** times in non-public schools. Effective management of diabetes can help prevent these acute complications.

For additional information related to diabetes management in the school setting, please view the [Healthcare Procedures Section](#).

Seizure Disorders

There were **5,836** students in public school districts and **375** students in non-public schools with a seizure disorder, also known as epilepsy, during the 2023-24 school year. Seizures are sudden, temporary, bursts of electrical activity in the brain that cause temporary changes in physical movement, sensation, behavior, or consciousness (American Academy of Pediatrics, 2021). Epilepsy is a brain disorder where a person has recurring seizures. Epilepsy is a spectrum disorder and there are many different types of seizures and types of epilepsy syndromes.

Most seizures end on their own and cause minimal concerns. For many students, seizure disorders can be controlled with daily seizure medication. Sometimes seizures occur in a different pattern that is more often or more severe. A seizure is considered an emergency when it lasts a long time or when seizures occur close together and the individual does not recover between seizures. Some students may require administration of seizure rescue medication, such as diazepam gel (Diastat), midazolam nasal spray (Nayzilam), or a diazepam nasal spray (Valtoco).

During the 2023-24 school year, seizure rescue medications were administered during school or at a school-sponsored function **438** times in public school districts and **110** times in non-public schools (Figure 9).

Seventy-seven percent (114) of public-school districts and **106** non-public schools permitted the administration of Diastat or other rescue seizure medications by trained volunteer school personnel. Of those, **100 percent** of public-school districts and **89 percent** of non-public schools call 911 if Diastat or other rescue seizure medication is administered by trained volunteer school personnel. Tenn. Code Ann. § 49-50-1602 requires that upon the decision of a trained volunteer to administer diazepam gel, school officials shall immediately summon local emergency medical services to the school to provide necessary monitoring or transport to safeguard the health and condition of the student.

Non-life Threatening and Severe/Life Threatening Allergies

An allergic reaction occurs when the immune system overacts to a substance known as an allergen. Food, Latex, and insect/bee sting allergies are common in the school setting. During the 2023-24 school year, there were **94,322** students in public school districts and **9,826** students in non-public schools with non-life threatening or severe/life-threatening allergies.² Of those, **79 percent** of students in public school districts and **76 percent** of students in non-public schools reported a non-life-threatening allergy. Figure 10 highlights the number of students with common non-life-threatening allergies by type.

² Parent/guardian reported diagnosis was acceptable for non-life-threatening allergies. All other chronic health conditions and disabilities require a confirmed diagnosis to be counted in the Health Services Survey.

Figure 10. Number of Students with Non-Life-Threatening Allergies by Type, 2022-23

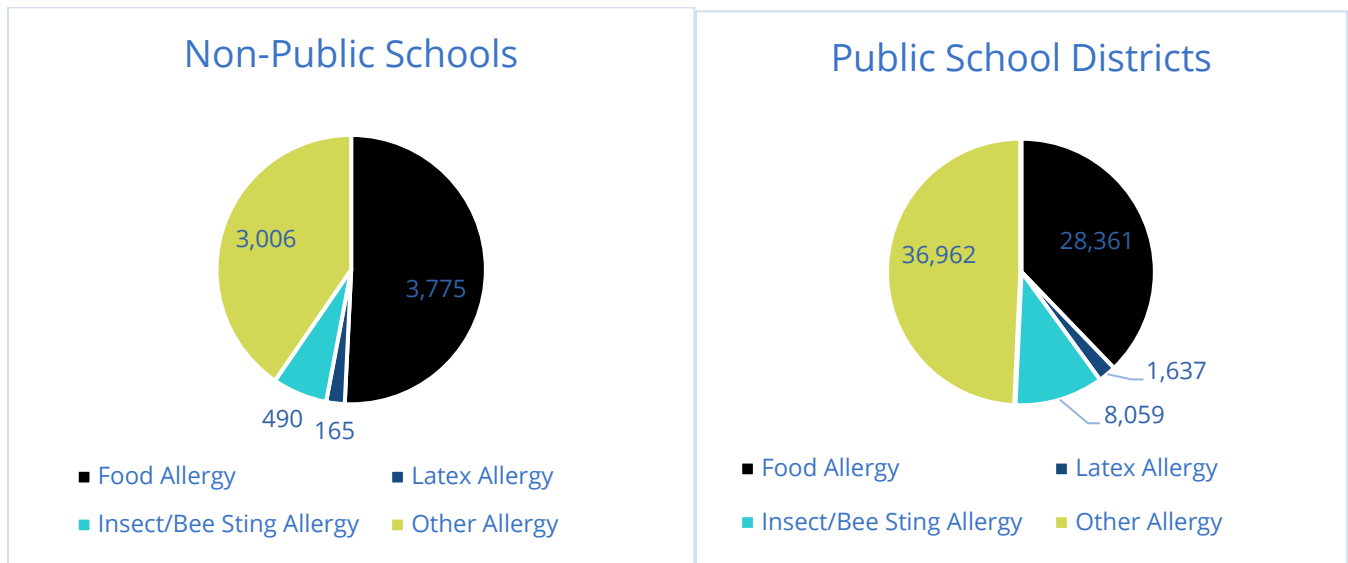
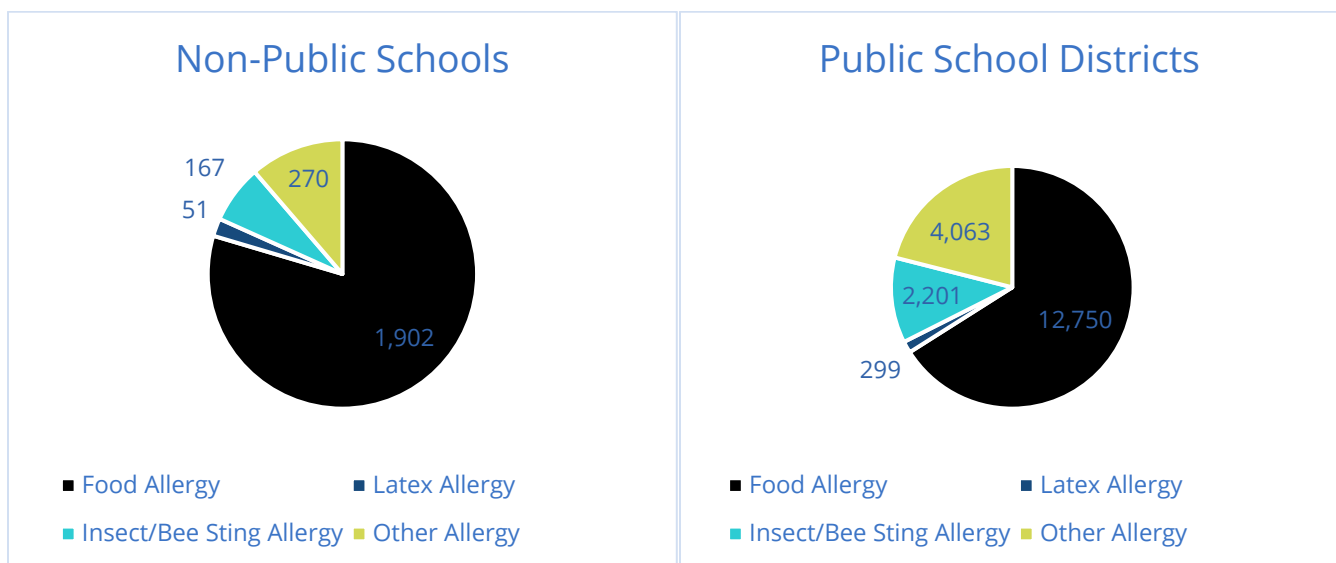


Figure 11. Number of Students with Severe/Life-Threatening Allergies by Type, 2023-24



There are a range of allergic reactions due to exposure to an allergen. Reactions can include fever, atopic dermatitis (a condition that causes inflamed, itchy skin), allergic asthma, and anaphylaxis. Anaphylaxis is a serious, life-threatening form of allergic reaction that occurs rapidly and may cause death. Anaphylaxis usually involves more than one part of the body, such as the skin or mouth, lungs, the heart, and the gut. Some symptoms of anaphylaxis may include swelling of the lips, tongue, or throat, shortness of breath or trouble breathing, wheezing (whistling sound during breathing), vomiting/diarrhea, or fainting. There were **19,313** students in public school districts and **2,390** students in non-public schools diagnosed with

severe/life-threatening allergies during the 2023-24 school year. Epinephrine is the first line of treatment for severe allergic reactions and is the only treatment that will stop a severe allergic reaction.

In accordance with Tenn. Code Ann. § 49-50-1602, each school in a public school district and non-public schools are authorized to maintain epinephrine auto-injectors to be administered to any student believed to be having a life-threatening anaphylactic reaction. (D) When a student does not have an epinephrine auto-injector or a prescription for an epinephrine auto-injector on file, the school nurse or other trained school personnel may utilize the public school or non-public school supply of epinephrine auto-injectors to respond to an anaphylactic reaction, under a standing protocol from a physician licensed to practice medicine in all its branches. During the 2023-24 school year, **81** percent (119) of public-school districts and **106** non-public schools chose to maintain epinephrine auto-injectors for this purpose.

Figure 12: Number of Times Epinephrine Administered to a Student During an Emergency, 2023-24



Seventy-five percent (1,437) of schools in public school districts maintained a school supply of epinephrine (stock). During the 2023-24 school year, epinephrine was administered **746** times in public school districts and **247** times in non-public schools at school or during a school-sponsored function. Figure 12 shows the number of times epinephrine was administered using a student’s prescription or using the school’s supply (stock).

School nurses play a critical role in the prevention and management of severe allergies and ensuring prompt emergency response should an exposure to a life-threatening allergen occur. School nurses prepare school staff in the awareness, prevention, and treatment of life-threatening allergic reactions.

Attention Deficit/Hyperactivity Disorder (ADHD)

ADHD³ is a common mental disorder that affects children. ADHD symptoms include not being able to focus, impulsivity, and hyperactivity. ADHD is often identified in school-age children and adolescents when it leads to classroom disruption or problems with schoolwork. A combination of behavioral therapy and medication

³ Attention Deficit Disorder (ADD) is no longer a medical diagnosis but is sometimes used to describe inattention-type ADHD.

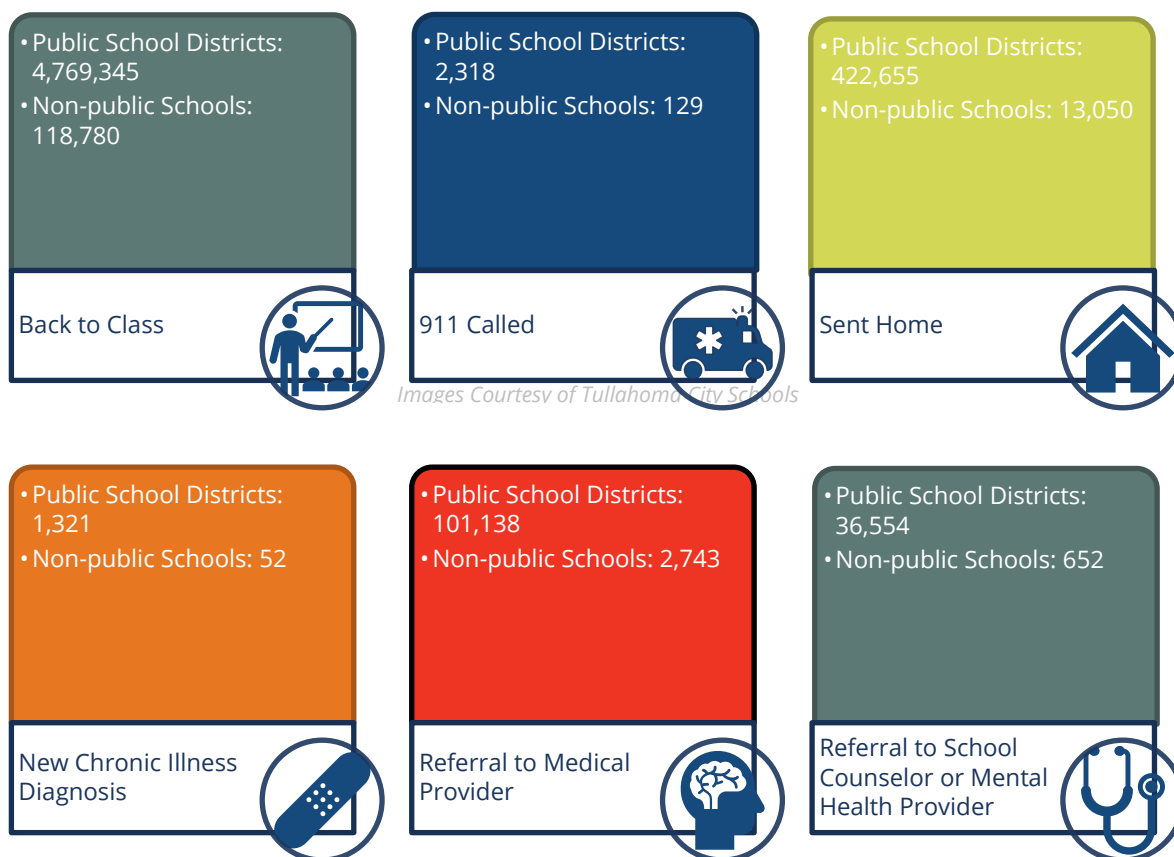
can improve symptoms of ADHD and works best for those with moderate to severe ADHD (American Psychiatric Association, 2021). In the 2023-24 school year, **39,669** students in public school districts and **4,252** students in non-public schools were diagnosed with ADHD, making it the most prevalent behavioral disorder in Tennessee schools. Students with ADHD experience more obstacles than the average student. Students with ADHD may experience trouble following directions, sitting still, and completing tasks at school (CDC, 2020). School nurses play an important role in the early recognition and assessment of ADHD, administer medication to students with ADHD, and monitor for therapeutic response and side effects.

Student Health Encounters and Return to Class

An encounter is any documented student visit where the school nurse provided counseling, treatment, or aid of any kind.⁴ Encounters include visits to the school nurse for health maintenance, acute illnesses, and injuries. A student with a health concern who sees a school nurse is more likely to remain in school. During the 2023-24 school year, public school nurses reported **5,203,169** student encounters. Of those, **92 percent** of students seen by the public-school nurse were returned to class. Of the visits to public school nurses, **101,138** resulted in the student being referred to a medical or mental health provider, and **1,321** student visits to the public-school nurse resulted in a new diagnosis (Figure 13). There were **138,140** student encounters with a non-public school nurse, and **86 percent** of students seen by a non-public school nurse were returned to class.

⁴ Health Screenings were tracked separately.

Figure 13: Health Office Encounters



Health Screenings

Health-related problems, if not detected and treated, can limit the ability of a child to learn. Healthy students are better learners. Often, the best way to identify these problems is through school health screenings. When health concerns are identified early, through regular school health screenings, schools and families can take steps to ensure students receive access to needed health care, which can improve education and health outcomes.



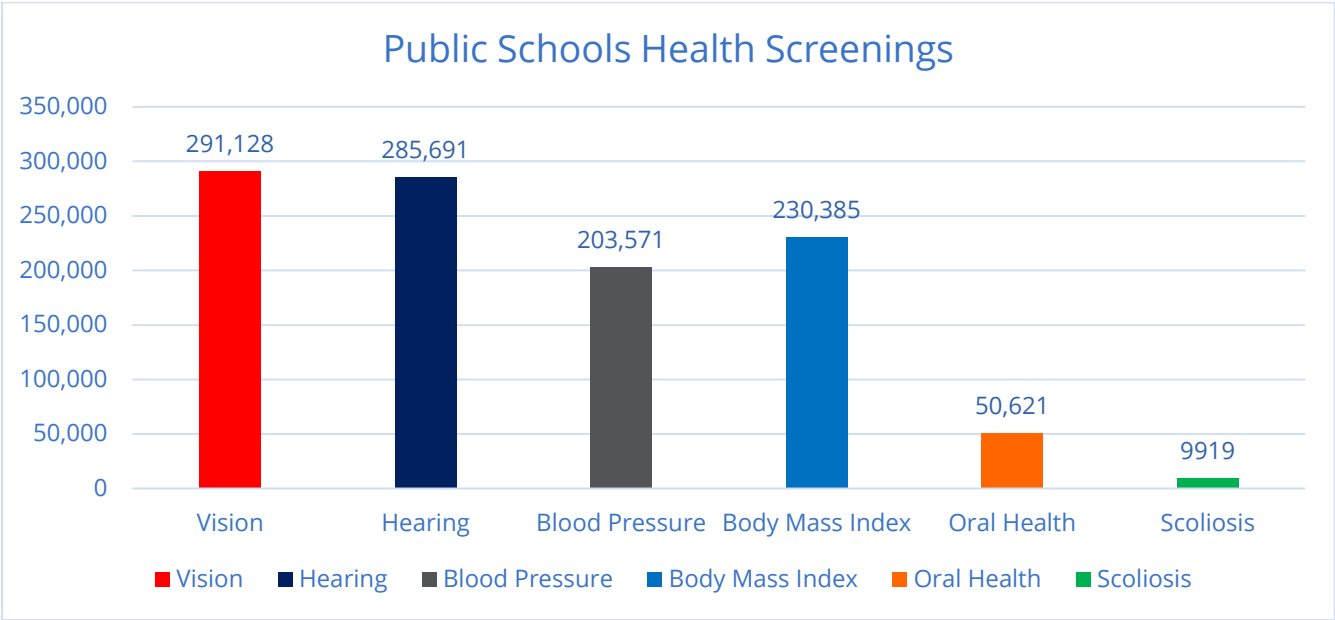
145 public school districts conducted **1,071,316** student health screenings



129 non-public schools conducted **35,799** student health screenings

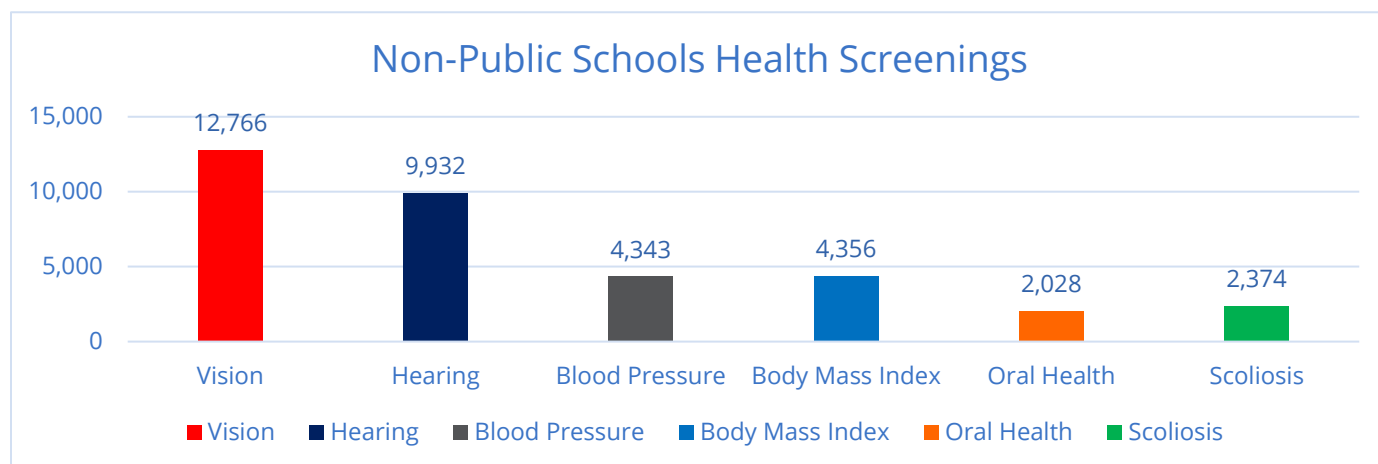
School nurses assist with health by screening students and making referrals for follow-up care when needed. Parents are responsible for making appointments for the follow-up care specified in the referral and for ensuring students keep the appointments. During the 2022-23 school year, **145** public school districts conducted **1,071,316** student health screenings (Figure 14) and **129** non-public schools conducted **35,799** student health screenings (Figure 15)⁵.

Figure 14: Student Health Screenings in Public School Districts, 2023-24



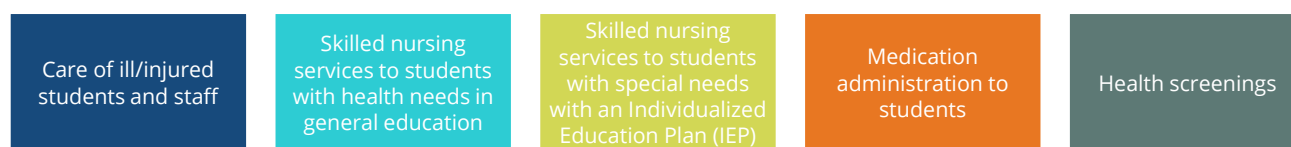
⁵ These numbers represent initial screenings and do not include re-screenings or screenings not part of a mass school screening.

Figure 14: Student Health Screenings in Non-Public Schools, 2022-23



Health Care Procedures

School enrollment of children assisted by medical technology, complex medical procedures, and special health care needs continues to increase. School nurses work with families and health care providers to provide health care procedures in the school setting or will train and supervise unlicensed assistive personnel (UAP) to provide care, if appropriate. The most common types of health services provided to students by a licensed health care provider in Tennessee public schools include:



During the 2023-24 school year, **24,966** students received a complex procedure administered during the school day, at least once and **1,148** students in non-public schools had a complex procedure performed at least once during the school year.

School nurses also provide care to school staff. During the 2023-24 school year, there were **71,878** staff visits to the public-school nurse and **15,350** staff visits to the non-public school nurse.

Unlicensed Assistive Personnel (UAP) are school personnel who do not hold a healthcare license. They often serve in the role of paraprofessionals, health aides, nursing assistants, health clerks, or teacher aides. The school nurse conducts and documents UAP trainings, provides ongoing supervision, performs performance evaluations, and is in control of the decision to assign healthcare tasks (National Association of School Nurses, 2020). As allowed by the Tennessee Board of Nursing and with proper training and oversight, tasks that may be performed by and delegated to UAP may include first aid, school health screenings, maintaining

student health records, non-complex procedures, assisting students in the self-administration of medications, and other health office duties. During the 2023-24 school year, there were **23,474** public school personnel trained by the RN in non-complex tasks.

Figure 15: Number of Students Receiving Complex Procedures Ordered by a Medical Provider, 2023-24

Complex Procedure	Non-Public Schools	Public School Districts
Urinary Catheterization	8	235
Wound Care	412	181
Blood Glucose Monitoring	142	6414
Ketone testing	61	1934
Insulin Injection	88	3104
Insulin pump management	99	2211
Carbohydrate Counting	103	4424
Oxygen Saturation	101	3240
Nebulizer Treatment	81	746
Peak flow measurement	4	255
IV/Heparin flush	0	1
Tracheal Suctioning/Trach Care	8	53
Ventilator Care	2	8
NG/G-Tube Care/Feeding/Meds	34	1384
Ostomy Care	5	90
Oxygen Delivery	0	49
Other Complex Procedures	0	637
Total	1,148	22,733

Figure 16: Number of Students Administered Medication by Type, 2023-24

Medication	Nonpublic Schools	Public School Districts
Insulin Administration	103	2917
Medications/Other Injections	873	2047
Medication/Intravenous	13	8
Medications/Inhaler (or nebulizer)	652	10,825
Medications/Oral (by mouth)	7,251	84,556
Medications/Nasal	41	1,103
Medications/Rectal	17	314
Medications/Topical	1,609	26,746
Medications/Ophthalmic	224	3,899
Medications/Otic	16	272
Medications/Enteral	11	255
Total	10,810	132,942

Medication Management

The purpose of administering medications in school is to help each child maintain an optimal state of health to enhance his or her education. School personnel should limit medication administration to only medications required during school hours and ones that are necessary to provide the student access to the educational program. Figure 16 highlights the number of students who received medication during the school

year. Oral medication is the most common medication administered during the school day, with **84,556**

public school students⁶ and **7,251** non-public school students receiving oral medication during the school year (Figure 16). Trained school staff can assist with medication administration in accordance with local policy and Tenn. Code Ann. § 49-50-1602. School nurses provide oversight for medication administration by administering medication to students, delegating and supervising staff trained to assist with medication administration and ensuring proper training and supervision of designated staff.

All medications, except those designated by an individual healthcare plan (IHP) or exempted by Tennessee law, should be maintained in a secure, locked location under the supervision of a school nurse and/or other school personnel who have been trained and assigned to manage medications and record-keeping.

Emergencies

Figure 17: Number of Emergency Treatments Administered to Students by Type, 2023-24

Emergency Treatment/Medication	Non-Public Schools	Public School Districts
Albuterol (Prescribed)	679	30,401
Albuterol (Stock)	115	606
Epinephrine (Prescribed)	146	451
Epinephrine (Stock)	101	295
Glucagon	52	213
Narcan/Opioid Antagonist	61	161
Emergency Seizure Medications	110	438
Cardiopulmonary Resuscitation	1	19
Automatic External Defibrillator	1	35
Other Emergency treatment	137	5,605
Total	1,403	38,224

A significant role of school nursing practice is to provide health services to students who are injured, sick, or experiencing a health emergency. Tenn. Code Ann. § 49-50-1602 and § 49-50-1604 permit certain emergency medications and treatments to be performed by school personnel with appropriate training that includes, but is not limited to, administration of antiseizure

medication, Epinephrine, Glucagon, and Naloxone. During the 2023-24 school year, **38,224** emergency treatments were administered to public school students and **1,403** emergency treatments were administered to non-public school students at school or during a school-sponsored function. Figure 17 highlights the type of emergency medication or treatment and the number of times the medication or treatment was administered during the school year. Albuterol was administered **31,007** times in public school districts and **794** times in non-public schools and was the most frequent emergency medication administered to students during the 2023-24 school year. During the 2023-24 school year, public school staff received emergency treatment **1,195** times, and non-public school staff received emergency treatment **93** times.

⁶ Students can be counted once in each category.

Figure 18: 3-Year Trend Data for Medication Administration and Complex Procedure Administration; Number of Students

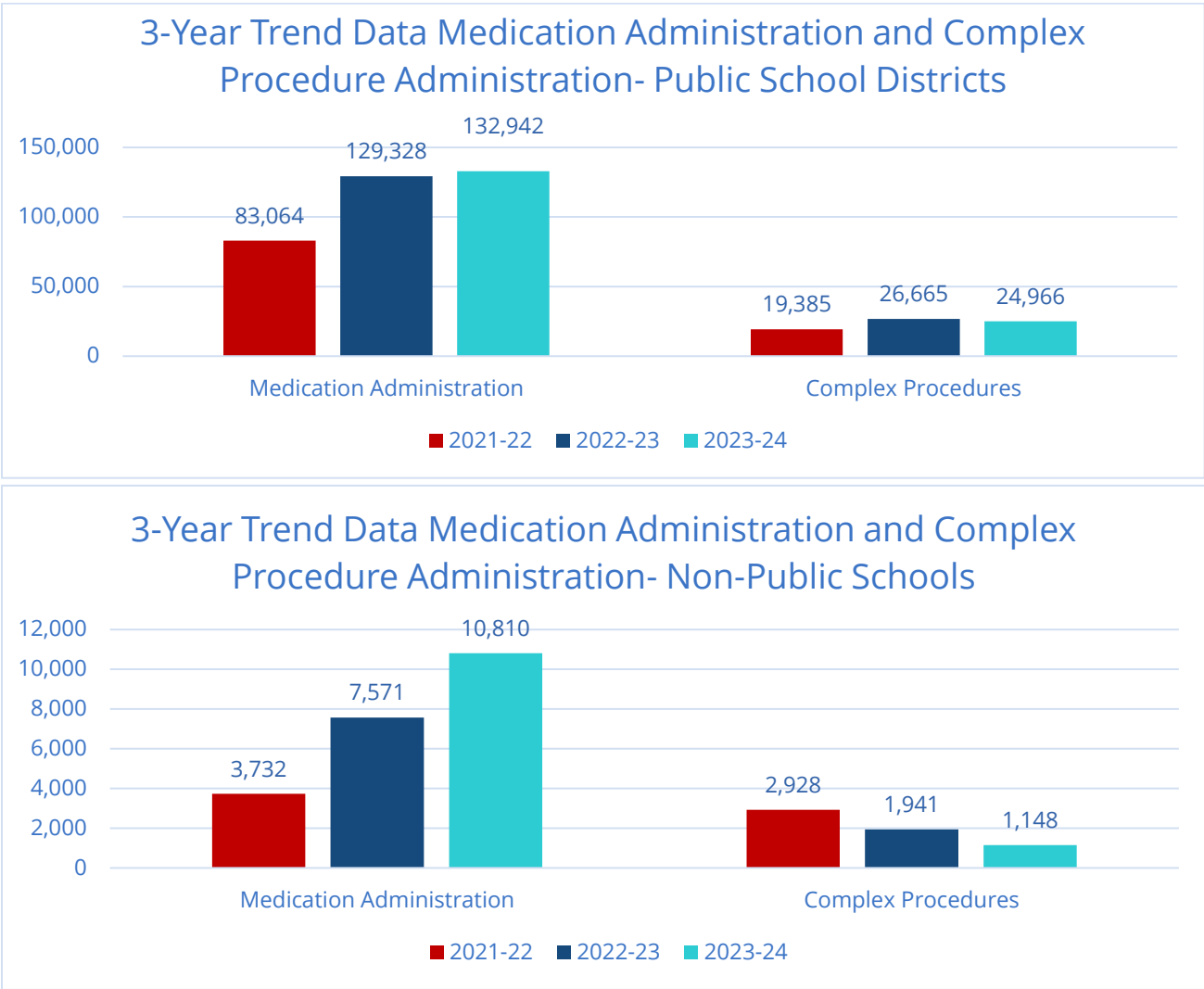


Figure 19: 3-Year Trend Data-Number of Emergency Treatments/Medications Administered; Public School Districts and Non-Public Schools

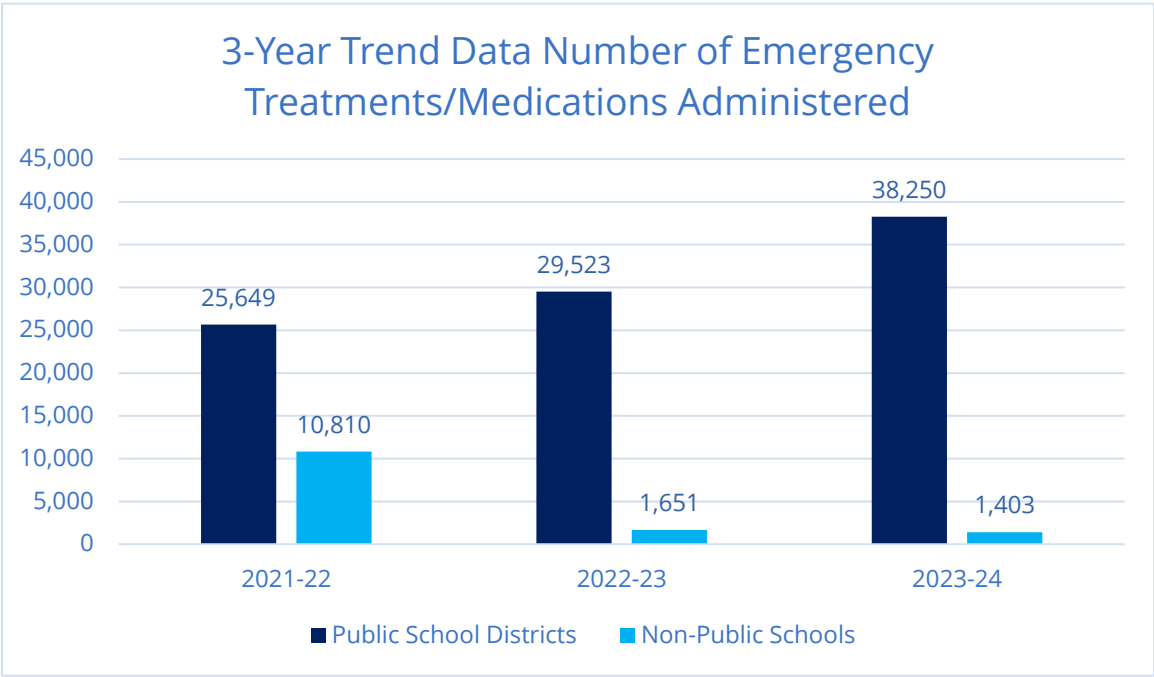
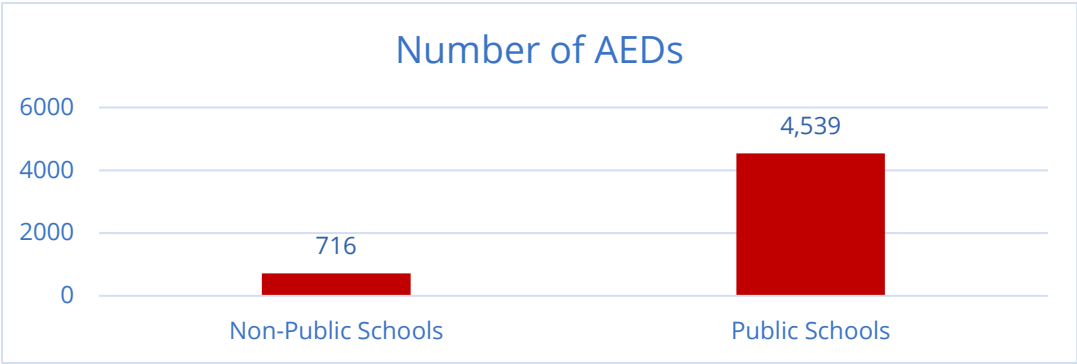


Figure 20: Total Number of AEDs, 2023-24



Automated External Defibrillators (AEDs)

Sudden Cardiac Arrest (SCA) is a life-threatening emergency that occurs when the heart suddenly and unexpectedly stops beating and causes blood and oxygen to stop flowing to the rest of the body. It can happen without warning and can lead to death within minutes if the person does not receive immediate help. There is a greater chance of survival and recovery if Cardiopulmonary Resuscitation (CPR) is given and an AED is administered early. An AED is a portable device used to restore normal heart rhythm to individuals in cardiac arrest. AEDs are used for an immediate response to an emergency when a student or

adult appears to not have a heartbeat. Tenn. Code Ann. § 49-2-122 requires public school districts to have at least one AED placed within every school. Non-public schools are encouraged to place AEDs in schools, but it is not required by law.

There were **4,539** AEDs in **1,715** public schools (**147** public school districts) and **716** AEDs in **204** non-public schools during the 2022-23 school year (Figure 18). AEDs located in public school districts were used **35** times and were used **one** time in non-public schools during the 2022-23 school year.

Cardiopulmonary Resuscitation (CPR)

CPR is an emergency lifesaving procedure performed when the heart stops beating. Immediate CPR can double or triple the chances of survival after cardiac arrest (American Heart Association, 2021). School nurses in public schools are required to maintain certification in CPR. Additionally, public schools are encouraged to have at least one employee or volunteer qualified to administer emergency first aid and CPR.

During the 2023-24 school year, **25,292** full-time public-school employees had CPR certification, and **729** schools provided CPR training to **98,460** students. There were **4,595** non-public school full-time employees who had a CPR certification, and **31** non-public schools provided CPR training to **1,081** students.

During the 2023-24 school year, **88 percent** of public-school districts and **65 percent (153)** of non-public schools that submitted the survey reported that they annually conduct CPR/AED drills with all school staff.

Head Injuries/Concussions

A concussion is defined as a traumatic brain injury caused by a bump, blow, or jolt to the head or by a hit to the body that causes the head and brain to move rapidly back and forth. Concussions are not usually life-threatening. However, all head injuries should be taken seriously. Children and adolescents are among those at the greatest risk for concussion (Tennessee Department of Health, 2020).

Ninety-six percent of public-school districts and **83 percent** of non-public schools have adopted guidelines and policies concerning the nature, risk, and symptoms of concussion and head injury. The school nurse coordinates concussion care by serving as the liaison between medical and educational teams. Based on the severity and symptoms the student is experiencing, the school nurse, in consultation with the concussion management team, creates an IHP. The school nurse, individually or as a member of the concussion management team, identifies students with possible concussion, makes appropriate referrals, and by way of care coordination, leads students and families through the return to academics and learning and eventually a gradual return to physical activity, including sports. (National Association of School Nurses, 2021).

School Health Clinics

School health clinics provide a variety of services, including sick visits, primary care, and immunizations. School-based health clinics provide health services to meet students' health care needs on a school campus. School-linked health clinics provide health services to students through a variety of linkages, such as an external agency providing telehealth. School health clinics supplement the school nurse's role by providing an easily accessible site for student referrals for students without a provider home or a student who may need more comprehensive services.

Figure 21: Number of Non-Public Schools with School-Based and/or School-Linked Health Clinics, 2023-24

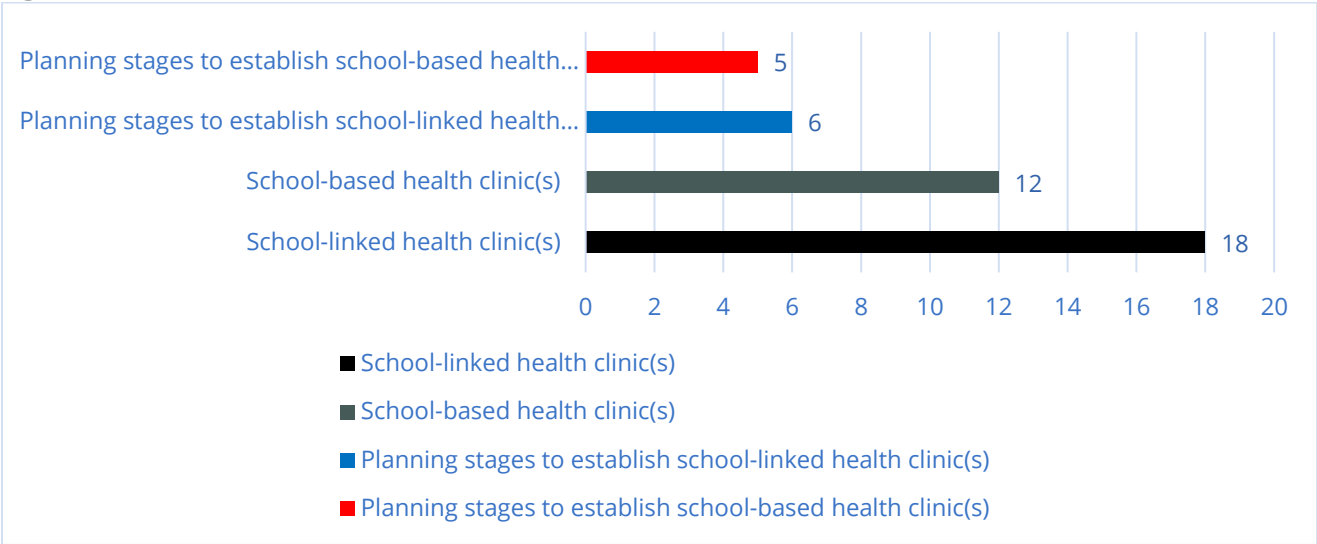


Figure 22: Number of Public-School Districts with School-Based and/or School-Linked Health Clinics, 2022-23

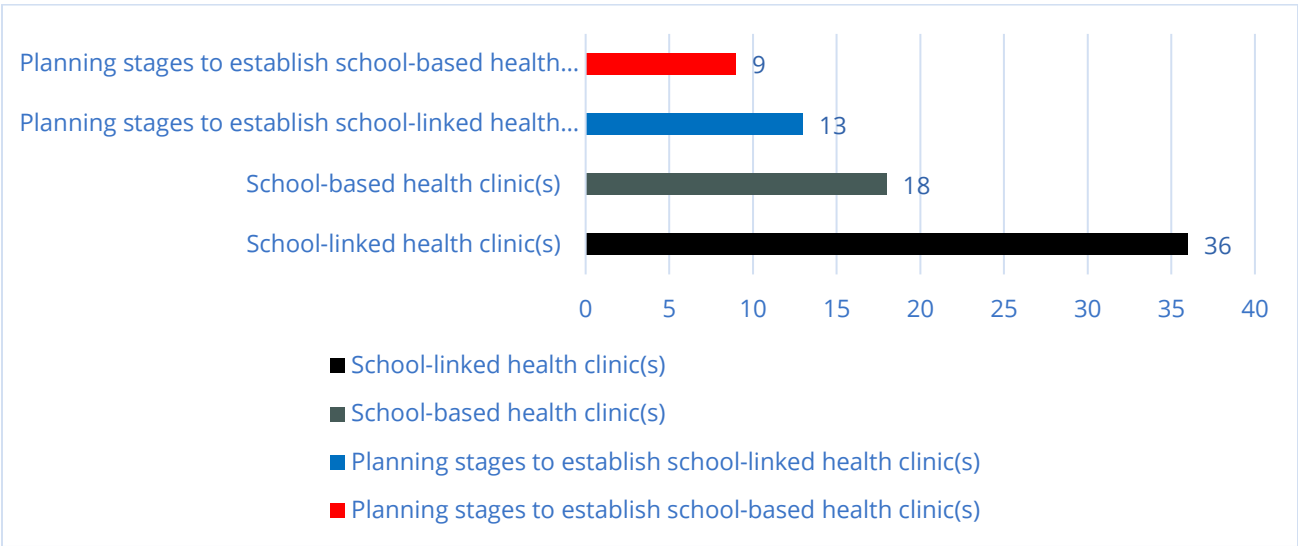
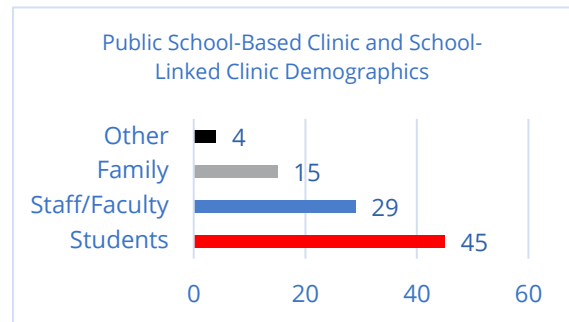


Figure 23: Demographic of Public-School Districts School-Based and School-Linked Clinics, 2022-23

During the 2023-24 school year, there were **36** public school districts with school-linked health clinics and **18** public school districts with school-based health clinics. There were **18** non-public schools with a school-linked health clinic and **12** non-public schools with a school-based health clinic. There were **22** public school districts and **11** non-public schools in the planning stages to establish school-linked and/or school-based health clinic(s) (Figure 19, 20).

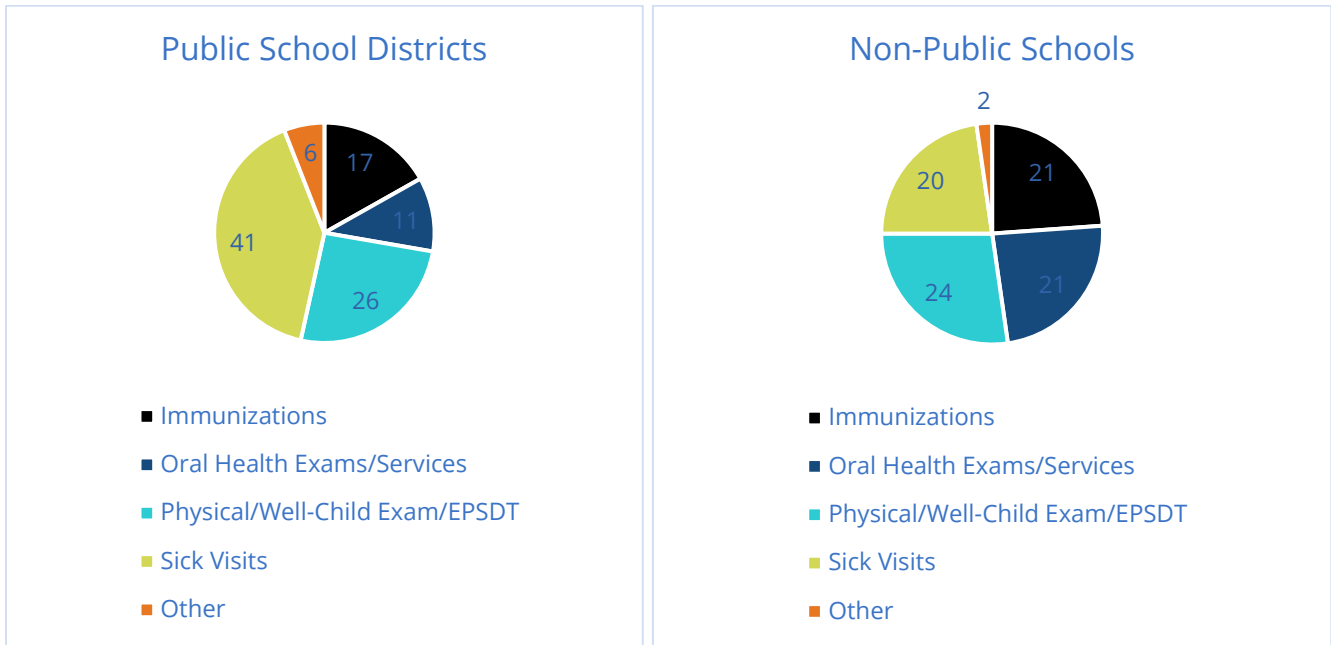


Services provided in school-based and school-linked clinic(s) services are provided to students, school staff, families, community members, and others. Figure 21 displays who services are most provided to, with **45** public school districts that have school-based and/or school-linked clinic(s) providing services to students.

There were **24,380** students in public school districts and **4,889** non-public school students who received services in school based/school-linked clinic(s) during the 2023-24 school year. There were **2,075** student referrals made by school-based/school-linked clinic(s) in public school districts to an external mental health provider, and **394** referrals were made by school-based/school-linked clinic(s) in non-public schools to an external health care provider or mental health provider.

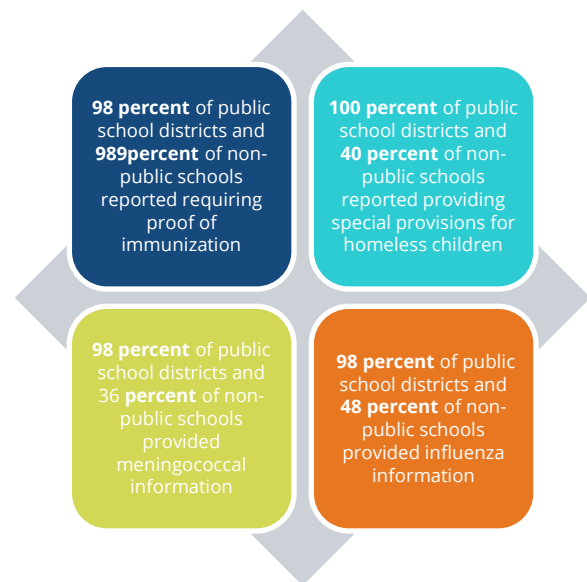
Seventeen public school districts and **21** non-public schools with school-based/school-linked health clinic(s) provided immunizations, **26** public school districts and **24** non-public schools provided physicals/well-child exams, and **41** public school districts and **20** non-public schools provided sick visits, making immunizations, physical examinations, and sick visits the most common services provided in school based and school linked clinic(s) during the 2023-24 school year (Figure 23).

Figure 24: Number of Public-School Districts and Non-Public Schools Providing Listed Services in School-Based/School-Linked Clinics, 2023-24



Immunization and Meningococcal Information to Parents

Figure 25: Immunization and Meningococcal Information



Pursuant to Tenn. Code Ann. § 49-6-5001(c), no children shall be permitted to attend any public school, nursery school, kindergarten, preschool, or child care facility until proof of immunization is given to the admissions officer of the school, nursery school, kindergarten, preschool, or child care facility and no child or youth determined to be homeless shall be denied admission to any school or school facility if the child or youth has not yet been immunized or is unable to produce immunization records due to being homeless. **Ninety-eight percent** of public-school districts reported requiring proof of immunization prior to permitting a child to attend any public school, nursery school,

kindergarten, preschool, or daycare, and **100 percent** of public-school districts reported providing special

provisions for homeless children. **Eighty-nine percent** of non-public schools reported requiring proof of immunization prior to permitting a child to attend school, but only **36 percent** of non-public schools reported providing special provisions for homeless children (Figure 24).

Conclusion

The delivery of school health services advances the educational success, lifelong achievement, and health of school-aged children and adolescents. These services include assessment, planning, coordination of services, and direct care for all children, including those with special health care needs and those requiring complex medical procedures. School nurses, through the delivery and supervision of health services, play an essential role in keeping children healthy, safe, and ready to learn.

School health services are designed to ensure early intervention, access, and referral to primary health care services, to prevent and control communicable diseases and other health problems, and to provide emergency care for student illness and injury. School nurses continue to be essential members of our school communities. Overall, health is fundamental to a student's growth and development. Students with unmet health-related needs have difficulty engaging in the educational process. As the number of children with special health care needs attending school increases, so does the need for school nurses. Healthcare access by all students is an essential factor that can improve the overall health and wellness of society. School nurses remove barriers to healthcare access and provide direct care, care coordination, and case management to students in need. Continued collaboration among school nurses, health care providers, families, and school staff are increasingly critical to benefiting student health and educational outcomes.

Public school districts and non-public schools are encouraged to have a school nurse in every school to support the overall well-being and academic success of students. Having a nurse in every school ensures access to healthcare expertise and enables prompt assessment and treatment of acute and chronic illnesses, injuries, and emergencies. Having a full-time nurse at school enhances safety and emergency preparedness. Access to a full-time school nurse ensures health care for all students, including the most vulnerable students and families.

Schools are encouraged to assess the acuity of the student population and schools with a higher acuity level among students, such as those with a substantial number of students with chronic health conditions or disabilities, may need additional nurses on staff to provide specialized care, administer medications, and closely monitor the well-being of students with complex health needs.

Public school districts and non-public schools are encouraged to have supportive policies and practices that include providing adequate staffing, training, and support for school nurses.

References

American Academy of Pediatrics. (2016). Role of the School Nurse in Providing School Health Services. *Pediatrics*.

American Academy of Pediatrics. (2021). *Epilepsy: National Coordinating Center for Epilepsy*. Retrieved from <https://www.aap.org/en/patient-care/epilepsy/>

American Diabetes Association. (2021). Retrieved from Diabetes: <https://ada.com/conditions/diabetes/>

American Heart Association. (2021). *What is CPR?* Retrieved from <https://cpr.heart.org/en/resources/what-is-cpr>

American Psychiatric Association. (2021). Retrieved from What is ADHD?: <https://www.psychiatry.org/patients-families/adhd/what-is-adhd>

CDC. (2019). *Asthma*. Retrieved from CDC Healthy Schools: <https://www.cdc.gov/healthyschools/asthma/index.htm#:~:text=Asthma%20is%20a%20leading%20chronic,are%20likely%20to%20have%20asthma>

CDC. (2019). *Chronic Disease Management*. Retrieved from CDC Healthy Schools: https://www.cdc.gov/healthyschools/shs/chronic_disease_management.htm

CDC. (2019). *Morbidity and Mortality Weekly*. Retrieved from Disparities in Diabetes Deaths Among Children and Adolescents: United States, 2000-2014: <https://www.cdc.gov/mmwr/volumes/66/wr/mm6619a4.htm>

Healthy Schools Campaign. (2015). *Healthy Schools C*. Retrieved from An Action Plan for Reducing Absences Due to Asthma: <https://healthyschoolscampaign.org/blog/an-action-plan-for-reducingabsences-due-to-asthma/>

National Association of School Nurses. (2016). *Framework for 21st century School Nursing Practice*. Retrieved from <https://higherlogicdownload.s3.amazonaws.com/NASN/3870c72d-fff9-4ed7-833f-215de278d256/UploadedImages/PDFs/Framework%20for%2021st%20Century%20School%20Nursing%20Practice/21s>

National Association of School Nurses. (2020, June). Retrieved from School Nurse Workload: Staffing for Safe Care: <https://www.nasn.org/nasn-resources/professional-practice-documents/position-statements/ps-workload>

National Association of School Nurses. (2020). *School Nurse Workload: Staffing for Safe Care*. Retrieved from <https://www.nasn.org/nasn/advocacy/professional-practice-documents/position-statements/ps-workload#:~:text=The%20school%20nurse%20provides%20the%20critical%20link%20to,needs%3B%20and%20work%20as%20advocates%20and%20change%20agents.>

National Association of School Nurses. (2020, January). *The School Health Services Team: Supporting Student Outcomes*. Retrieved from <https://www.nasn.org/nasn-resources/professional-practice-documents/position-statements/ps-team>

National Association of School Nurses. (2021, January). *Concussions: School Based Management*. Retrieved from National Association of School Nurses: <https://www.nasn.org/nasn/advocacy/professional-practice-documents/position-statements/ps-concussions>

National Association of School Nurses. (2024). A contemporary *Framework* update for today's school nursing landscape: Introducing the *School Nursing Practice Framework*[™]. *NASN School Nurse*, 0(0). doi:10.1177/1942602X241241092

Tennessee Department of Health. (2020). *Return to Learn/Return to Play: Concussion Management Guidelines*. Retrieved from <https://www.tn.gov/content/dam/tn/health/program-areas/tbi/2020%20Tennessee%20Department%20of%20Health%20Return%20to%20Learn.Return%20t>