



SHREWSBURY PUBLIC SCHOOLS

Office of Special Education / Pupil Personnel Services

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**Department of Nursing Report to the School Committee
Data from 2016-17 School Year
Presented by Noelle Freeman, Director of Nursing Services
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Introduction

The National Association of School Nurses defines school nursing as: a specialized practice of professional nursing that advances the well-being, academic success, and lifelong achievement of students. The Shrewsbury Public Schools Department of Nursing plays a critical role in the life of the school and as part of the overall team to support student learning. Shrewsbury Public Schools' nurses promote students' overall health and empower learners each day through collaboration with school staff, families, outside providers, and the students themselves.

The nurses are integral in supporting the district's strategic priorities, one of which is the promotion of health and wellness. The school nurses support this goal daily as they work to keep students safe, healthy and ready to learn.

The school nurses in Shrewsbury come from a variety of backgrounds and bring with them a wealth of experience and nursing knowledge. The academic achievement of our students is bolstered by the skillful care that they receive when visiting the health office. The consistent return to class rate from our health offices (93.7%) reflects the nurses' focus on education and learning. Their work ensures that the students of Shrewsbury Public Schools are receiving the care and services that they need to optimize their learning potential.

School Nursing Staff

During the 2016–17 school year, Shrewsbury Public Schools Nursing Services employed: 1 Director (51% direct student services and 49% Director responsibilities), 10 full-time nurses, two 0.4 FTE nurses, 1 part-time 2 hour nurse (Floral Street School), and 1 LTS 0.7 FTE (SHS), providing health care services to 5,960 students and 814 staff in the Shrewsbury Public Schools.

We have approximately 10 substitute nurses who fill in for the regular staff nurses or accompany field trips when necessary. The majority of these substitutes are employed elsewhere and are available to us on a limited basis.

The Massachusetts Department of Public Health recommends a school nurse to student ratio of 1.0 fulltime equivalent (FTE) certified nurse in each building with 250 to 500 students. In buildings with more than 500 students, the recommendation is that there be 0.1 FTE for each additional 50 students. We exceed this ratio at our high school, both middle schools, and Floral St Elementary School.

Data Management

The school nurses are responsible for maintaining the integrity and confidentiality of the student Health Record. Each student has an electronic Health Record as well as a paper file. The nurse ensures that all required immunizations are up to date, that state physical exam requirements are met, and that mandated screenings are completed, recorded and reported.

For the 2016-17 school year there were a total of **63,677** student health encounters and **1,186** staff health encounters documented in SNAP (the electronic health record used by SPS nurses). An “encounter” is defined as any contact with an individual during which the school nurse provided counseling, treatment, or aid of any kind. Mandatory screenings (vision, hearing and postural) are not counted as encounters. Screenings are tracked and reported separately.

SNAP Health Center separates visits into the following categories:

- Injury** – Includes encounters in which an injury is reported/evaluated for the first time (injuries may have occurred in school, or outside of school)
- Illness** – Includes encounters for chronic and acute illnesses, re-evaluation of injury, and common complaints such as headaches, stomachaches, nosebleeds, fatigue, etc.
- Management** - Includes encounters that do not include physical care, and instead involve information exchanges with students, staff, family members, etc.
- Other** - Includes mental/behavioral health concerns such as anxiety and stress (see below*), as well as bathroom use, contact lens care, orthodontic care, assistance with medical devices, etc.

*For purposes of this report, we have further analyzed these categories to create a **Mental and Behavioral Health** category. This includes visits for anxiety, stress, emotional issues, etc.

The charts below represent the breakdown of visits by students and staff for each visit category.

Student Visits:

Primary Concern	Number of Visits
Illness	31,397
Injury	11,329
Other	10,167
Management	8,588
Mental/Behavioral Health	2,296
Total Student Encounters	63,677

Staff Visits:

Primary Concern	Number of Visits
Illness	682
Injury	303
Other	176
Mental/Behavioral Health	25
TOTAL STAFF ENCOUNTERS	1,186

Following a visit to the nurse, 94% of students return to class and learning.

Primary Responsibilities

The school nurses manage a comprehensive, coordinated health service program that includes:

- Providing skilled nursing care to students and staff who present with a broad range of physical and mental health issues
- Implementing mandated health screening programs (vision, hearing, postural, and BMI)
- Managing the school's medication program
- Managing immunization compliance for incoming and existing students
- Coordinating health care needs for students attending field study trips, field day, etc
- Implementing disease management education for children and families with chronic illnesses such as diabetics and asthma
- Providing a safe haven for students needing additional emotional support

MA Department of Public Health Mandated Screenings

The following school screenings are mandated by Massachusetts state law (M.G.L. c.71, s.57 and 105 CMR 200.000) and are conducted according to the following schedule:

- Vision screenings screening: each year for students in grades pre K, K, 1, 2, 3, 4, 5, 7, and 10
- Hearing screening: each year for students in grades K, 1, 2, 3, 4, 5, 7, and 10
- Heights and weights are measured and BMI is calculated for students in grades 1, 4, 7, and 10. Aggregate data reported to the state as mandated. Individual student data is not reported but is recorded in the confidential student health record.
- Postural screenings: each year for all students in grades 5, 6, 7, 8, and 9
- Verbal drug use screenings (Screening, Brief Intervention, Referral to Treatment -SBIRT) for all students in grades 7 and 10 to be implemented by the end of the 2017-18 school year

Per MA 105 CMR 200.000, the purpose of mandated screenings is to “identify and take appropriate actions with respect to disabilities and medical conditions of school children in public schools as soon as possible so as to enable all children to obtain the fullest benefit of their educational opportunities ...” Screenings are a tool used for referral for further care and are not considered diagnostic. Letters are mailed home if follow-up for vision, hearing, or postural screening is recommended. BMI data is available by parent request to the nurse.

Hearing and vision screenings are conducted in the health office by school nurses and trained personnel.

Postural screenings, height, weight and BMI screenings are done by the Physical Education (PE) teachers, usually during the first 2 weeks of PE class. If the PE teacher has concerns about a particular student, the student is rescreened by the school nurse.

SBIRT screenings will be conducted by school nurses, school adjustment counselors, school psychologists, and guidance counselors. All screeners must attend a training presented by DPH staff.

In order for a student to be excused from any screening(s), the parent/guardian must make a request in writing to the school nurse annually. For postural screening exclusion requests, documentation of screening within the past year by a medical professional must also be provided.

Medication Management and Administration

Students may require scheduled medications during the school day for various reasons including ADHD, diabetes, behavioral and mental health concerns, etc. Nurses manage the administration of these medications, as well as medications that are prescribed and given on an as needed basis.

We have Standing Orders/Medical Directives for over the counter medications such as Ibuprofen, Acetaminophen, Tums, etc., as well as life-saving medications such as EpiPens, albuterol nebulizer treatments, and Narcan. Standing Orders are reviewed and signed annually by our school physician, Dr. Timothy Gibson. A parental consent form, which is now in the PowerSchool Parent Portal, must be completed before these medications can be administered.

For the 2016-17 school year, there were 86 prescriptions for scheduled daily medications across the district, totaling 12,207 administrations. 10,266 doses of medication were given on an “as needed” basis for students, and 422 doses were recorded for staff.

Tracking Immunization Compliance

School nurses are responsible for checking the immunization status of all students who enter SPS. The district welcomed over 700 new students to Shrewsbury during the 2016-17 school year (this number does not include kindergarten and preschool students who registered for school before June 21, 2017). For each of these students, immunization records are checked against Massachusetts requirements and parents/guardians are informed if any immunizations are missing. Students are not permitted to begin school until they are fully immunized (or on a catch-up schedule). Referrals are made to area clinics, including St Anne’s Free Medical Clinic, as needed. This process is ongoing throughout the year as families move into the district.

Field Study Preparation

Preparation includes accessing a list of students who will attend a trip, determining the medical needs of those students (allergies requiring EpiPens, asthma, daily medications, anxiety issues, diabetes, seizure precautions, etc) and assessing the need to send a substitute nurse to care for those needs. If a substitute nurse is required, the school nurse informs her of the needs for the day. If a substitute is not needed, the school nurse must review the needs with the teacher who will be responsible for the students during the trip. In either scenario, the nurse prepares a bag of first aid supplies to be sent along with the adult in charge; medications are included as needed. SPS nurses prepared medical alert information for approximately 80 K-8 field studies, and multiple SHS field studies (including overnight trips to Disney, etc) throughout the 2016-17 school year.

Procedures/Treatments/Nursing Interventions

School nurses perform various procedures and treatments throughout each day. Some of these include:

- Respiratory Procedures (auscultation of lungs, peak flow monitoring, nebulizer treatment, oxygen saturation check)
- Diabetes Procedures (blood glucose testing, insulin pump care, carbohydrate/insulin calculations, monitoring and treatment of ketones)
- Cardiovascular Procedures (blood pressure measurement, central line care, site care, flushing)
- GI/GU Procedures (Ostomy care, gastrostomy or other feeding tube care or usage)
- Orthopedic Procedures (Wheelchair assistance, crutch-walking instruction)
- Wound Care

Disposition after Illness/Injury Assessment

By addressing the immediate health needs of students and providing onsite care, school nurses support learning through improved attendance levels. After assessment and treatment by a school nurse, the majority (approximately 94%) of students visiting the nurses' office with an illness or injury complaint returned to the classroom to continue their studies.

Students who are treated by the school nurse can return to the classroom with minimal interruption to their learning, working parents do not have to take time off, and the high cost of treatment in a doctor's office or emergency department may be avoided.

Emergency Calls to 911

When a student presents to the school nurse with a serious injury or acute medical condition, a determination is made whether or not the situation requires activation of Emergency Medical Services (EMS). The following chart summarizes the number of times that calls were made to 911 in the 2016-17 school year.

Student 911 Medical Emergencies*	6
Student 911 Behavior Health Emergencies	2
Student Calls to Mobile Crisis	0
*EpiPens administered prior to 911 call	0
Staff 911 calls	2

Case Management

The Shrewsbury Public School nurses spend a significant portion of their day performing case management duties that include communication with families, school staff, and community health care providers regarding student health issues. The table below reflects the number and type of these communications that were documented in SNAP by nurses this year. While this number is significant, it does not capture every communication that nurses are involved in throughout the day.

Type of Communications		Total # of Students
Communications with Parents or Guardians	< 15 mins	9,512
	> 15 mins	112
Communications with School Staff about health issues	< 15 mins	2,778
	> 15 mins	53
Communications with Community Agencies	< 15 mins	218
	> 15 mins	4
Number of Group Meetings with staff/Parents	< 15 mins	54
	> 15 mins	32
Total		12,763

Students with Special Health Care Needs

There are approximately 1,700 students in Shrewsbury Public Schools with diagnosed conditions that fall into the category of Special Health Care Needs. These conditions include asthma, life threatening allergies, Crohn’s disease, sickle cell disease, seizure disorders, cardiac conditions, cancer, ADHD, autism spectrum disorders, eating disorders, anxiety, depression, etc. School nurses use their clinical knowledge and past experience to care for students with this wide variety of needs daily. As new or unfamiliar situations arise, nurses seek out colleagues and other resources as needed to increase their skills and knowledge base.

Additional School Nurse Responsibilities

All of the Shrewsbury nurses are involved with the following activities in their respective buildings:

- Individualized Educational Program (IEP) and 504 meetings
- Child Abuse Prevention (CAP) Team
- Building Crisis Team
- Medical Emergency Team (MERT)
- Student Support Team (SST) or Early Intervening Team (EIT)
- Building Leadership Teams
- Clinical rounds with consulting psychiatrist
- Creating and updating evacuation plans for our students with physical impairments
- Maintenance of Automated Electronic Defibrillators (AED’s)
- Collection of monthly report data required by Essential School Health Service (ESHS) Program

The following are examples of additional teams/activities that include school nurse involvement in various buildings:

- Classroom presentations on health-related subjects
- School Wellness Advisory Committee (SWAC)
- Shrewsbury Educators Association (SEA) Health and Safety Committee

- Shrewsbury Board of Health Emergency Preparedness Team - provide Emergency Shelter staffing as needed
- Responsible for completion of MA Department of Public Health mandated surveys re: Immunizations, Diabetes, Asthma
- Shrewsbury Coalition for Addiction Prevention and Education (SCAPE)
- Coordinating Flu Shot Clinics available to all school and town employees
- Teaching CPR/AED certification classes for school staff
- Partnering with Assabet Valley Collaborative Evolution Program at SHS to ensure the Health and Safety of their students
- Mentoring SHS students who are considering nursing as a career through the Advanced Career Exploration (ACE) Program
- Serving as preceptor for RN-BSN students in their Community Health practicum
- Coordinating food drives, winter coat and hat/mitten, holiday giving collection and distribution in conjunction with school based groups and community organizations (St. Anne's Human Services, Worcester County Food Bank, etc)
- Acting as SHS Class Advisor
- Teaching first aid to local Brownie Girls Scout troops

Essential School Health Service Program

Shrewsbury Public Schools participates as a mentored school district and receives consultation on school health services from the Northbridge School District (funded ESHS program) based on the requirements of the Essential School Health Grant. The grant provides opportunities for consultation in the areas of policy development, programming and interdisciplinary collaboration.

Some of the responsibilities inherent with the grant are to provide data to MDPH. This data is utilized for published studies, statewide reports and strategic planning. The types of information included are:

- Health Service activities
- Incident reports
- Emergency referrals
- Number of diagnosed or suspected head injuries
- Medication management for students
- Epinephrine and naloxone administrations
- Nursing assessments/interventions/procedures/treatments
- Behavioral Health intervention tracking
- Wellness management
- Program development
- Professional development

In return, we receive a stipend of \$3,000 per year. These monies are used for such things as medical equipment and professional development opportunities for nursing staff.

Emergency Equipment

Epinephrine Auto Injectors

In accordance with district policy that was adopted in the 2015-16 school year, we stock a supply of epinephrine auto injectors in each health office. This supply is sufficient to cover the unlikely event of 2 simultaneous anaphylactic reactions in any given health office, along with an additional supply sufficient to send on field studies as needed. Parents have been notified of this practice and given the option to not send an epinephrine auto injector from home for use during the school day. We have seen an increase in families who are choosing to take advantage of this option this year; more than 80% choosing not to send epinephrine from home (see chart below).

In the Spring of 2017, the Director of Nursing was contacted by approximately 12 school districts in Massachusetts, inquiring about the details of our stock epinephrine implementation. These districts learned of our policy through a letter that was sent to schools by the Massachusetts Medical Society, and were considering implementing similar practices.

Our supply of stock for the 2017-18 school year was again obtained at no cost to the district. Epinephrine auto injectors were obtained from the “EpiPens 4 Schools” (EpiPen) program, and the “Q Your School” (Auvi Q) program.

School	# Students with Known Allergy	# Students with EpiPen from Home
Shrewsbury High School	98	8
Oak Middle School	67	5
Sherwood Middle School	60	12
Coolidge School	17	8
Floral St School	43	10
Paton School	14	0
Spring St School	34	6
Beal School	14	9
Parker Rd Preschool	14	6
Total	361	64

Naloxone (Narcan)

Each health office stocks 2 doses of naloxone for treatment of opioid overdose. A state-wide effort is underway to address the opioid epidemic. Schools are encouraged by the MA Department of Public Health to stock naloxone for treatment of possible opioid overdose by students, staff or visitors. All nursing staff are trained in the administration of nasal naloxone.

The recommended dosage for naloxone has increased from 2mg/dose to 4mg/dose. The supply of naloxone that will be purchased for the 2017-18 school year will reflect that change. The cost to the district for naloxone will be approximately \$750.

AEDs

An automatic external defibrillator is a portable device used to restore normal heart rhythm to a patient in cardiac arrest. We were able to purchase 3 additional AEDs for our buildings last year thanks to Emergency Supplies and Training funds provided by a generous anonymous donor. Shrewsbury Public Schools now has a total of 20 AEDs with 1 AED in each preschool building, 2 AED's at each elementary and middle school (one AED at OMS is maintained by Parks and Recreation) and 4 at Shrewsbury High School, one designated for the athletic trainer.

The SPS nurses are responsible for checking the AED status on a regular basis. Several of our devices are nearing the end of their predicted "lifespan" and will need to be replaced. A plan to systematically replace these devices over the next several years has been initiated; 2 new devices were purchased in August 2017. The cost to the district for replacement AED's is approximately \$1500/unit; the maintenance cost for AED's (replacement of expired batteries and electrodes) is approximately \$1500/year.

Tourniquets

All nursing staff attended a "Stop the Bleed" tourniquet training in October 2017. Tourniquets and trauma packs have been purchased to add to our emergency response capabilities. These supplies will be stocked in our emergency "go-bags" and in all AED cases. This purchase (\$1950) will be funded by the generous Emergency Supplies and Training anonymous donation.

Health and Wellness Initiatives

Tourniquet Training – As noted above, all nurses attended a "Stop the Bleed" tourniquet training in October 2017. This hands-on training allowed for practice in the proper use of tourniquets for life threatening bleeding. Tourniquets will be in place in all buildings by the end of this month.

Shrewsbury Coalition for Addiction Prevention and Education (SCAPE) – SCAPE is a collaboration between various members of the Shrewsbury community, including school personnel. The coalition hosted screenings of the Jim Wahlberg film "If Only" for students at SHS and OMS, as well as for the greater Shrewsbury community in October 2016. The presentation was well received by students and community members alike. SCAPE will host a presentation on brain development and youth risk taking, including substance abuse, on November 16th in the SHS auditorium. This presentation by nationally recognized Dr. Ruth Potee is being sponsored by State Representative Hannah Kane. The evening will also include resource tables with several local treatment and support organizations participating.

CPR/AED Training for Staff – During the 2016-17 school year, 38 staff members across various buildings were trained in CPR and AED skills in order to be more prepared to respond to emergency situations. Three of the nurses are American Heart Association Heartsaver and Basic Life Support Instructors and will continue to offer trainings throughout the coming year. The cost of certification, which was previously assumed by the staff themselves, is now paid for by funds from the generous anonymous Emergency Supplies and Training donation.

Flu Shot Clinics for Staff - Flu shot clinics were once again organized with Osco Pharmacy and held at all school buildings and town hall. Participants were able to use health insurance to pay for flu shots, with no out of pocket expense in the vast majority of cases. Clinics were open to all school and town employees. More than 300 people received flu shots.

Goals for the 2017 -18 School Year

Screening, Brief Intervention and Referral to Treatment (SBIRT) Implementation – One of the requirements of the Opioid law (bill H.4056) that was passed in January 2016 is, “subject to appropriation, each city, town, regional school district, charter school or vocational school district shall utilize a verbal screening tool to screen pupils for substance use disorders. Screenings shall occur on an annual basis and occur at 2 different grade levels as recommended by the department of elementary and secondary education, in consultation with the department of public health.” This screening process must be implemented by the end of the 2017-18 school year. School staff (nurses, guidance counselors, adjustment counselors and school psychologists) who will be conducting the screenings attended a MA DPH training in October 2017 and were instructed in the specific motivational interviewing technique known as SBIRT. We are in the process of creating a plan to implement screenings for all students in grades 7 and 10. Families of students in those grades were notified in August via PowerSchool of our plan to screen students during this school year and will receive notice of particular screening dates as they are scheduled. Pilot screening days for Oak Middle School and Shrewsbury High School have been scheduled for early December.