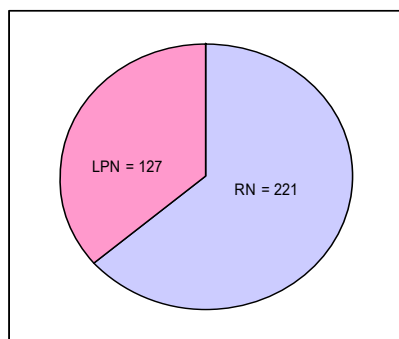


Summary Report of Arkansas School Nursing in Public and Charter Schools School Year 2008-2009

School nurses in all public and charter school districts in the state of Arkansas were asked to complete the Arkansas School Health Nursing and Program Summary developed by the State School Nurse Consultant. This report is compiled from data voluntarily submitted by school nurses from eighty-seven (87) school districts across the state totaling an enrollment of 144,343 students. The survey was available on the Coordinated School Health website, www.arkansascsh.org. Data was entered into a database electronically. This was made available through the services of Leon Brown, IT director at the Crowley's Ridge Educational Service Cooperative located in Harrisburg, AR. It does not include data from correctional or private schools.

School Nurses

The demand for school nursing services has grown rapidly in recent years. Nursing personnel who work daily with school children must have the knowledge and expertise to meet increasingly complex health needs. Among the 87 survey respondents who listed the license credentials of their school nurses (n=348), two hundred twenty-one (64%) were Registered Nurses (RNs) while 127 (36%) were Licensed Practical Nurses/Licensed Psychiatric Technical Nurses (LPN/LPTNs). Among the survey respondents who listed the RN's academic credentials, 33% (n = 73) reported a baccalaureate or higher degree.



School Policies

Policies are essential to guide the development and implementation of school programs. School nurses reported the presence of written, school board approved policies that could be found in the student handbook and/or the personnel policy handbook. Eighty-four districts reported having a policy for medication administration while 60 districts had a policy for HIV/Chronic Infectious Disease management. Seventy-seven districts had a policy for emergency response, 75 had policies for reporting an injury, while 74 districts had a policy requiring two persons per campus be trained in Cardio-Pulmonary Resuscitation (CPR) and only 69 districts had policies requiring two persons per campus have First Aid Training.

Written, school board approved health policies: School year 2008-2009

Policy	Number of districts with policy
Medication Administration	84
HIV/Chronic Infectious Disease Management	60
Emergency Response	77
Injury Reporting	75
2 persons/school trained in CPR	74
2 persons/school trained in First Aid	69

Health Screening, Referral and Follow-up

Health screenings have historically been an integral part of a school nurse's job. In Arkansas, there are four mandated health screenings for students: height and weight for Body Mass Index (BMI) calculations, vision, hearing and scoliosis. All of these screenings are performed by school nurses who have received certification by Community Health Nurse Specialists (CHNS). In addition, height and weight measurements may be performed by certified teachers (i.e. PE or health) that have received certification from the CHNS. Hearing screenings may be performed by school nurses, audiologists or speech/language pathologists. For vision and hearing, students in Pre-Kindergarten, Kindergarten, first, second, fourth, sixth and eighth grades and all transfer students are screened. For this school year of 2008-2009, 72,985 students received a vision screening and 63,561 received a hearing screening. In addition, all Kindergarten, second, fourth, sixth, eighth and tenth grade students were required to be measured for height and weight for their BMI calculation. Those students measured for height and weight were 61,584.

Scoliosis screenings were conducted on females in grades six and eight as well as males in grade eight only. Of the 87 reporting school districts, 15,201 students were screened and 389 students were referred with 178 students receiving an exam.

Other screenings reported by school nurses included: 8,530 dental screenings, 4,232 blood pressure screenings and 5,514 screenings for *Pediculosis capitus* (head lice).

Screenings performed: School Year 2008-2009

Screening	Number Screened	Number referred	Received Exam
Vision	72,985	7,290	4,554
Hearing	63,561	1,615	696
Body Mass Index (BMI)	61,584		
Scoliosis	15,201	389	178
Dental	8,530	1,235	814
Blood Pressure	4,232	326	197
Other: Head lice	5,514	1,180	1,070

Chronic Illness/Disabilities

Changes in American society, nursing practice and the nature of youth health services have resulted in an increased demand for expert clinical health services in youth oriented settings, such as schools. Advances in health care and technology have increased the survival rate and life expectancy of low birth weight infants, children with chronic illnesses, congenital anomalies and those who have survived traumatic injuries. Some of these children have special healthcare needs, such as technology assistance, medication and treatment administration, and supplemental nutrition that must be addressed while the child is away from home. An even greater number of children have long-term chronic medical conditions such as diabetes, asthma, anemia, hemophilia, epilepsy, and leukemia. Some of these conditions require daily management in a setting outside of the home, while other conditions may require only intermittent management or acute care procedures on an emergency basis. These changes have also heightened the need for population based health promotion, prevention, and early intervention services. Safe and accountable nursing practice requires adherence to the nursing process (assessment, diagnosis, outcome identification, planning, implementation, and evaluation) and systematic, continuous documentation of the individual care provided to clients (AR State Board of Nursing School Nurse Roles and Responsibilities Practice Guidelines).

An increasing number of students with chronic health conditions attend school. These conditions can affect attendance, school performance, and the student's level of well being. School nurses work closely with students, their families and health care providers as well as school administrators and staff to reduce the negative impact of illness on learning. Some of the responsibilities nurses have in caring for students with chronic illnesses or disabilities are to serve as case managers, evaluate activities of daily living, and assist with the development of appropriate modifications for the learning environment. In the 2008-2009 school year, 27,491 students in the 87 school districts reported having a chronic illness and/or a disability. This represents 19% of the student population of the elementary, middle and high school campuses in these districts. Twenty-nine percent of these students reported having asthma, a major chronic illness among school-age children. The numbers and percentages of the ten most reported conditions in these 87 districts can be found in the table below.

Chronic Health Conditions: School Year 2008-2009

Type of Condition (Rank)	Number of Students with Known Condition
	TOTAL
ADD/ADHD (2)	7,545
Anaphylaxis (or potential for) (4)	1,328
Anorexia/Bulimia	72
Asthma (1)	7,946
Autism (9)	672
Blind/Visually impaired (3)	1,493
Cardiovascular	554
Cerebral Palsy	275
Cytomegalovirus	4
Cystic Fibrosis	32
Deaf/Hearing Impaired	4633
Depression (5)	1,211
Diabetes Insulin dependent/Non- insulin dependent	448
Down's Syndrome	136
Epilepsy/Seizure disorder (8)	826
Genetic Diseases, other	155
Hemophilia/Bleeding disorder	71
Hepatitis B/C	10
HIV/AIDS	4
Hypertension	237
Malignant Disease	52
Migraine Headaches (6)	1,203
Neuromuscular Disease	75
Muscular Dystrophy	23
Multiple Sclerosis	7
Orthopedic disability (permanent)	205
Psychiatric Disorder (7)	1,014
Renal Disease	99
Rheumatoid Arthritis	74
Sickle Cell Anemia	69
Spina Bifida	64
Substance Abuse (known)	264
Ulcers	174
Other (Allergies)	516
TOTAL	27,491

Health Care Procedures at School

Some students with chronic illnesses and/or disabilities require health care procedures to be performed during the school day. School nurses from the reporting districts revealed 2,556 students needing specialized care. The following table illustrates the diversity of some of the more commonly performed procedures performed at school.

Children requiring specialized care at school: School Year 2008-2009

Procedure	Number of students
Bladder Program	155
Blood Glucose testing	328
Bowel Program	157
Catheterization by Nurse or Aide	39
Catheterization by Self	23
Dialysis (Peritoneal)	5
Diapering/Personal Toileting	364
Feeding Assistance (oral)	213
Nebulizer	273
Range of Motion Exercises	166
Respiratory Care (i.e. oxygen, postural drainage)	36
Stoma Care	51
Suctioning	25
Tracheostomy Care	17
Tube Feedings	86
Ventilator Assisted Care	6
Sub-cutaneous medications	363
Intramuscular Medications	135
Intravenous Medications	3
Other Procedures	111
TOTAL	2,556

Pregnancy

In the school year 2008-2009, there were 460 known student pregnancies. Of these, 111 received homebound services as a result of complications such as pre-eclampsia and pre-term labor. Thirty-one students quit attending school altogether. Two of these students were in middle school.

Students known to be pregnant: School Year 2008-2009

	Elementary School	Middle School	High School	TOTAL
Total number of known pregnancies		52	408	460
Number receiving homebound services		12	99	111
Number who dropped out of school		2	29	31

Suicide and Homicide

It is important to note the reports from school nurses in the 87 districts regarding suicide attempts, suicide deaths and homicides. The number of students attempting suicide totaled 65. Thirty-eight of the attempts were high school students, 25 attempts were middle school students and alarmingly, 2 attempts were elementary students. There were 9 deaths from suicide in middle and high school students. Equally alarming is the number of deaths by homicide among public school students. There were 3 reported by the school nurses. It is important to note that none of the deaths occurred at school.

Student Deaths by Suicide/Homicide: School Year 2008-2009

	Elementary School	Middle School	High School	TOTAL
Students attempting suicide	2	25	38	65
Student deaths from suicide	0	4	5	9
Number of suicides occurring at school	0	0	0	0
Student deaths from homicide	1	0	2	3
Homicides occurring at school	0	0	0	0

Abuse/Neglect

In an effort to protect all students, Arkansas Law states “It is the public policy of the State of Arkansas to protect the health, safety, and the welfare of minors within the state.” In addition, among the list of 27 mandated reporters of suspected abuse or neglect are “a licensed nurse, mental health professional, school counselor, school official, social worker, and teacher” (Act 1039 of 2003). In the 2008-2009 school year, school nurses from the 87 school districts indicated there were 687 reported cases of child abuse, 181 cases of sexual abuse, 594 reported cases of neglect and 185 other cases of abuse for a total of 1,647 cases of abuse. The following table presents the reported cases by elementary, middle and high school aged students.

Reported Cases of Abuse: School Year 2008-2009

	Elementary School	Middle School	High School	TOTAL
Reported cases of child abuse	439	165	83	687
Reported cases of sexual abuse	87	72	22	181
Reported cases of neglect	365	168	61	594
Reported cases of other abuses	77	100	8	185
TOTAL CASES OF REPORTED ABUSE	968	505	174	1,647

Medication Administration

During the 2008-2009 school year, school nurses reported that 18,660 students received medication while at school. Of these, 3,646 students received medications on a long-term basis, that is, longer than three weeks. Another 2,981 students received medications on a short-term basis, less than three weeks. Twelve thousand thirty-three students were given medications on a PRN (as-needed) basis. Medications received most frequently on a daily basis include but are not limited to: Ritalin, Dexedrine, Lithium and other psychotropic, controlled substances as well as Insulin delivered through an infusion pump or as a sub-cutaneous injection for students who have diabetes mellitus. Emergency medications include rescue asthma inhalers, Diastat, Versed, epinephrine injections and medications for migraine headaches (i.e. Imitrex and Maxalt). Over-the-counter (OTC) medications include Acetaminophen (Tylenol), Ibuprofen (Advil), Benadryl, Anti-acids, and topical ointments/lotions (i.e. Neosporin and Calamine).

Number of students receiving medications at school: School Year 2008-2009

	Elementary School	Middle School	High School	TOTAL
Students on long-term medicine (>3 weeks)	2,274	819	553	3,646
Students on short-term medicine (<3 weeks)	1,461	756	764	2,981
Students on PRN medicines	5,215	4,041	2,777	12,033
TOTAL	8,950	5,616	4,094	18,660

Health Care Coordination

The school nurse's role frequently extends beyond the school setting. Nurses serve as liaisons with physicians, dentists, community agencies, and families while supporting and caring for the health needs of students. More than 1,000 home visits were conducted during the 2006-2007 school year. In addition, there were 16,318 meetings held with parents or guardians, support staff and community agencies. Often times the school nurse is called on to care for school employees as well. This is evidenced by 9,387 contacts were made with school employees.

In addition, Individualized Health Care Plans must be developed by a Registered Nurse for all students with special health care needs. Some of these special health care needs include but are not limited to: life-threatening allergies requiring sub-cutaneous epinephrine; blood glucose monitoring with carbohydrate consumption calculations and guiding insulin injections.

Contacts/Meetings conducted by School Nurses: School Year 2008-2009

	Elementary School	Middle School	High School	TOTAL
Home visits conducted by School Nursing Staff	1,069	86	79	1,234
Meetings conducted with parents or guardians	6,451	1,836	1,739	23,102
Meetings conducted with support staff	2,126	1,858	957	7,646
Meetings conducted with community agencies	644	331	376	1,128
Children with Individualized Health Care Plans	3,697	1,457	1,201	7,940
Individual contacts-School employee health needs				

Injuries/Emergency Care

Injuries are common occurrences in the school-aged population. Many minor incidents occur to students and staff during the course of the school day. School nurses reported 397,125 at-school minor injuries requiring first-aid and 3,785 major injuries occurred in the 2006-2007 school year. Elementary injuries numbered 270,442, middle school injuries were 74,356 and high school injuries were 52,327. Major injuries are defined as medical emergencies requiring an EMS call or immediate medical care plus the loss of at least one-half day of school. Of the major injuries reported, 68% occurred on the play/school grounds, 17% involved PE/Athletics and 9% occurred in the classroom.

Injuries requiring EMS or immediate care by a MD or dentist AND loss of at least ½ school day(s)

Type of injury (give # in each category)	Bus	Hall	Class room	Play ground	PE class, Athletic practice/event	Shop	Rest-room	Lunch-room	Other	Total
Respiratory emergencies	5	22	149	286	226	2	3	5	10	708
Head Injury	18	79	108	626	156	3	5	3	4	1002
Back Injury	3	32	27	213	100	2	2	2	3	384
Eye Injury	2	29	110	190	47	19	0	1	2	400
Fracture	2	11	10	278	154	0	1	0	20	476
Sprain or Strain	5	39	78	1838	552	0	0	1	1	2514
Laceration	6	25	144	2207	118	30	3	14	2	2549
Dental Injury	2	6	25	132	41	0	0	4	3	213
Anaphylaxis	0	2	10	9	4	0	0	1	1	27
Psychiatric Emergencies	1	11	51	15	10	1	2	0	32	123
Heat Related Emergencies	0	0	2	22	76	0	0	0	0	100
Other	1	4	36	4	18	1	0	8	54	126
TOTALS	45	260	750	5820	1502	50	16	38	132	8622

There were adverse outcomes for some of the students with serious injuries occurring at school. Two serious injuries resulted in a permanent disability. Two hundred forty injuries occurred as a result from an incident requiring law enforcement intervention.

It is important to note that in 95% of the reporting districts (n = 83), 41% of the nurses were available all of the time, 59% were available most of the time and 2% were seldom available. In addition, the same districts reported the person available for the first care and triage of serious injuries included: principal (63%), secretary (34%), health aide (20%) and other (29%).

Other Responsibilities

Many school nurses reported being a part of several committees in the school district. Some of these committees include: student handbook, emergency preparedness, child nutrition/physical activity, 504, absentee, hometown health improvement, crisis team and literacy. School nurses are also required to fulfill other needs at school such as: bus duty (22%), lunch duty (24%), morning duty (19%), classroom substitute (13%), and other (42%) including office duty, wellness committee chair, attendance clerk, front office relief, testing proctor, car duty, translator, and substitute office secretary.