



2017-2018 School Nurse Survey Summary

Kansas Department of Health and Environment
Bureau of Health Promotion & Bureau of Family Health



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In spring 2018, the Kansas Department of Health and Environment (KDHE)'s Bureau of Health Promotion and Bureau of Family Health conducted a survey of public school districts and accredited private schools in the state to determine the school nurse workforce, management of students with chronic diseases, health screenings data, and immunization policies.

School district health staffing and chronic disease data points and definitions were collected as part of the National Association of School Nurses' (NASN) *National School Health Data Set: Every Student Counts!* initiative.

Methods: All school districts in Kansas were emailed an invitation letter with a Qualtrics survey link requesting their participation. The KDHE Child and Adolescent Health Consultant sent two follow-up reminder emails. Two School Nurse Advisory Council (SNAC) members made follow-up calls to non-respondents. Participation in this survey was voluntary. The KDHE Institutional Review Board granted this project "exempt" status, as it involved minimal or no risk for participants.

School districts were asked to report health screening data from the prior school year, 2016-2017, as current year's screening information may not have been complete at the time of the survey. Due to incomplete/inaccurate responses, only respondents from public school districts and state schools were included in the data analyses. Immunization policy questions are being analyzed by a separate organization and are not included in this report.

I. KANSAS SCHOOL DISTRICTS – ENROLLMENT SIZE

The Kansas State Department of Education reported 286 public school districts on file for the 2017-18 school year, with the largest category of school districts enrolling fewer than 500 students each. [Table 1](#) provides a breakdown by number and percentage of enrollment sizes for the 286 school districts.

Table 1. Number and Percentage of Kansas Public School Districts Based on Enrollment Size for the 2017-18 School Year, N=286

Enrollment Size by Number of Students	Number of Districts	Percentage of Total Districts
<500	134	46.9%
500 to 999	68	23.8%
1,000 to 5,000	64	22.4%
>5,000	20	7.0%

II. SURVEY PARTICIPATION RESULTS

As was mentioned in the survey results introductory statements, the 2017-18 Kansas School Nurse Survey attempted to obtain data from all public and accredited private school districts in Kansas. [Table 2](#) shares the resulting participation rate by both public and state school districts, as well as by county. A total of 226 school districts participated in the survey. [Table 3](#) shows whether the individual completing the survey was a Registered Nurse (RN) or a Licensed Practical Nurse (LPN). A participation rate of 78.7% of Kansas public school districts was obtained, and 93.8% of those completing the survey were either an RN or LPN.

Table 2. Number and Percentage of Survey Participation by School District Category and County Represented for the 2017-18 School Year, N=226

	Number Participating	Total	Participation Rate
Public school districts	225	286	78.7%
State schools	1	5	20.0%
Counties*	98	105	93.3%

*Counties not represented by participating school districts include Chase, Clark, Comanche, Gove, Norton, Stanton, and Wichita.

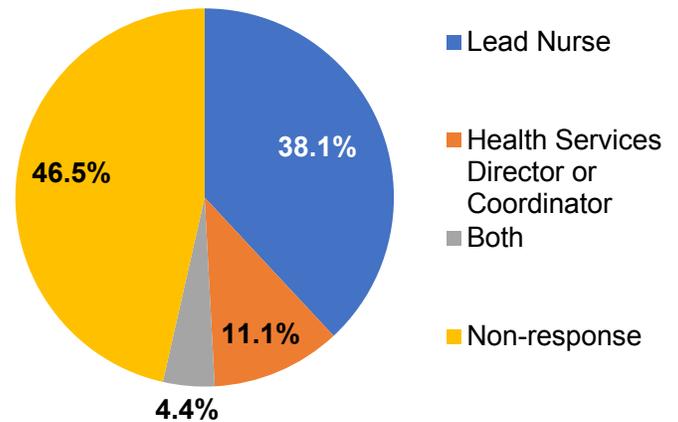
Table 3. Kansas School Districts Reporting an RN or LPN Completed the Survey for the 2017-18 School Year, N=226

	Districts	Completing the Survey
Yes	212	93.8%
No	14	6.2%

III. SCHOOL NURSE WORKFORCE

The survey included a question on school nurse workforce to determine the health services leadership for school districts. Types of leadership categories included a health services director or coordinator (typically not assigned a student case load or assigned a partial student case load) and a lead nurse (most often assigned a student case load). School districts also had the option to indicate that both types of leadership existed. Figure 1 illustrates that more than 50 percent of Kansas school districts have school nurse leadership.

Figure 1. Percentage of Kansas School Districts Employing a School Nurse Leader for the 2017-18 School Year, N=226



Health services staffing by FTE and assignment

School health staffing data points and definitions were collected as part of NASN’s *National School Health Data Set: Every Student Counts!* initiative.¹ The data definitions are provided below Table 4.

Full Time Equivalent (FTE) numbers (based on teacher FTE) from 170 Kansas school districts or state schools were provided for the following assigned caseload categories: direct services, supplemental/float providing direct services, and limited caseload to medically fragile students. The reported school nurse (RN) to student ratio (not including administrative RNs) is 1:468 (369,071/789=468). The student population of these 170 school districts represents 75.1% of the total public and state school student population in 2017-18 (total = 491,631). For more information about safe school nurse staffing levels refer to the NASN position statement *School Nurse Workload: Staffing for Safe Care*.

Table 4. Kansas School Districts Reported Health Services Staffing by Type of Personnel and by Assigned Caseload for the 2017-18 School Year, with 170 School Districts Reporting

Assigned Caseload	Registered Nurses	Licensed Practical Nurses	Health Aides Non-RN & Non-LPN
Direct services	657.0	49.1	140.5
Supplemental/float	60.9	15.0	27.9
Limited caseload	71.1	17.0	18.5
Subtotal	789.0	81.1	186.9
Administrative	33.4	2.2	60.1
Total	822.4	83.3	247.0

Assigned Caseload

Direct services – Responsible for the care of defined group of students in addressing their acute and chronic health conditions, including health screenings, health promotion, and case management. Direct services also include care provided in a health care team including LPNs or aides. Include long term substitute(s) but not substitutes for short term needs.

Supplemental/float – Permanently hired/contracted staff who provide supplemental/additional direct nursing

services or specific procedures. This category does not include staff with assignments of 1:1, 1:2, 1:3, 1:4, or 1:5 school nurse to student ratios.

Limited caseload – Providing direct services such as to medically fragile students (1:1, 1:2, 1:3, 1:4, and 1:5 ratios).

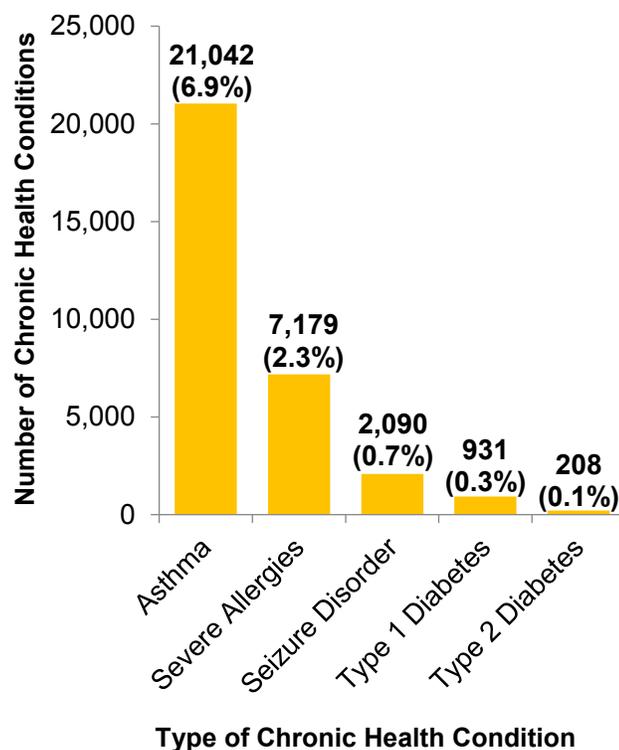
Administrative or supervisory – Providing management/clinical supervision to RNs, LPNs or other health extenders, or conducting other administrative health services, e.g. case management.

IV. CHRONIC HEALTH CONDITIONS

According to the U.S. Department of Health and Human Services, chronic health conditions include acquired, incurable diseases and other illnesses lasting more than 3 months.² It is estimated that one in four students in U.S. schools may have a chronic health condition.³ Multiple chronic conditions typically occur with age; however, one study found that 6.7% of children had multiple chronic conditions.⁴ Children with chronic conditions are at increased risk for school absences, low student engagement, exposure to bullying, and below-average performance on standardized achievement tests, and as such, benefit from care coordination by school nurses to reduce and minimize these risks.^{5,6,7}

The *National School Health Data Set: Every Student Counts!* requests that school nurses report on the number of students with a **physician/health care provider diagnosis** for asthma, type 1 and type 2 diabetes, seizure disorder, and severe allergies/anaphylaxis. Figure 2 provides the number and percent of student cases per selected chronic health condition and finds that asthma is the most prevalent among the five conditions (6.9%), followed by severe allergies/anaphylaxis (2.3%), seizure disorder (0.7%), type 1 diabetes (0.3%), and type 2 diabetes (0.1%).

Figure 2. Number and Percentage of Selected Chronic Health Conditions among Kansas Students 2017-18 School Year



Note: Percentages of Kansas students with selected chronic conditions were calculated by dividing the number of students with the condition by the number of students in the school districts that reported a number for that condition. The number of districts reporting by condition ranged from 130 to 155.

Managing Chronic Health Conditions in the School Setting

KDHE's Bureau of Health Promotion was a recipient of the "Public Health Actions to Address Diabetes, Heart Disease, Obesity and Associated Risk Factors Program" (CDC-RFA-DP13-1305) grant opportunity through the Centers for Disease Control and Prevention from 2013 to 2018. This grant program had a primary prevention focus on chronic health conditions in children and youth. The School Nurse Advisory Council (SNAC) was formed to provide guidance for school nurses by school nurses. SNAC developed and delivered tools and training to school nurses to improve the management of chronic conditions among students. KDHE, in collaboration with SNAC, focused on promoting the management of four chronic diseases among students: asthma, seizure disorder, severe allergies, and diabetes. SNAC developed several tools and provided education to school health personnel in targeted school districts on the management of these health conditions in the school setting.

Health condition management begins with a system of identification accomplished through review of school and sport physicals along with entry-into-school health intakes, and continues with ongoing updates from parents to school health services personnel (e.g., the school nurse). Once a student is identified as having a health condition necessitating its management during the school day, school nurses – in collaboration with the health care provider, student, and families – develop plans of care known as Individualized Healthcare Plans (IHPs), ensure availability of needed supplies, and provide ongoing assessment and documentation of services. School nurses also communicate with health care providers as the situation warrants. As part of an IHP, school nurses create Emergency Action Plans (EAPs) and provide instruction, training, and delegation of responsibilities for non-nurse staff in school settings to react appropriately in cases of medical emergencies among students with identified chronic conditions.

For purposes of determining current levels of care in managing chronic conditions across Kansas, the survey ranked care from a Level 1 to a Level 5, with Level 1 representing the most comprehensive level of care and Level 5 the least, or indicating a non-response. School districts could select only one level of care per health condition, and the results are presented in [Table 5](#).

The survey results indicate that type 1 diabetes receives the most comprehensive level of care in the school setting while type 2 diabetes receives the least comprehensive level of care.

Table 5. Variations in Identification and Care Coordination per Type of Health Condition for 2017-18 School Year, N=226

Health Condition	Number of School Districts	Percent of School Districts
Asthma		
Level 1	48	21.2%
Level 2	79	35.0%
Level 3	43	19.0%
Level 4	28	12.4%
Level 5	28	12.4%
Seizure Disorder		
Level 1	64	28.3%
Level 2	82	36.3%
Level 3	17	7.5%
Level 4	12	5.3%
Level 5	51	22.6%
Severe Allergy		
Level 1	59	26.1%
Level 2	92	40.7%
Level 3	25	11.1%
Level 4	18	8.0%
Level 5	32	14.2%
Type 1 Diabetes		
Level 1	86	38.1%
Level 2	56	24.8%
Level 3	16	7.1%
Level 4	12	5.3%
Level 5	56	24.8%
Type 2 Diabetes		
Level 1	34	15.0%
Level 2	37	16.4%
Level 3	20	8.8%
Level 4	12	5.3%
Level 5	123	54.4%

The levels of care were defined as follows:

Level 1 – health condition is comprehensively identified, IHPs are developed with ECP/EAPs as needed, and school nurse is in contact with other Medical Home team members as needed.

Level 2 – health condition is comprehensively identified, IHPs are developed with ECP/EAPs as needed.

Level 3 – health condition is comprehensively identified by a school process (e.g., intake forms)

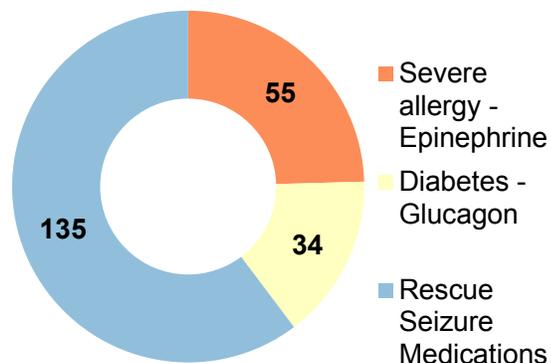
Level 4 – health condition is identified only via prescribed medication at school.

Level 5 – health condition not identified or non-response.

Emergency medications in Kansas schools

Increasingly, emergency medications are administered in the school setting to manage students' chronic health conditions. The survey requested information on the number of times that emergency medications were given for three health conditions, with the appropriate medication for each included in parentheses: severe allergy/anaphylaxis (epinephrine), type 1 diabetes (glucagon), and seizure rescue (multiple types of medication available). [Figure 3](#) provides the survey results regarding emergency medication administration. Rescue seizure medications were administered most frequently (135 times), followed by epinephrine for severe allergy/anaphylaxis (55 times), and glucagon for diabetes (34 times).

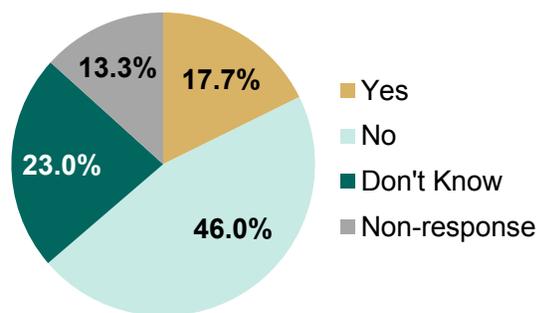
Figure 3. Number of Times Emergency Medication Administered for Three Selected Health Conditions, 2017-18 School Year



Monitoring student health insurance status

Related to management of chronic health conditions, school districts were asked about the school district's tracking of student health insurance status. As displayed in [Figure 4](#), only 17.7% reported tracking this status. However, 84 school districts (37.2%) reported referring uninsured students to health insurance programs. Nearly half (46.0%) of the school districts do not track health insurance status among students. There are several possible reasons for a school district not collecting student health insurance status, including a lack of time among health services personnel, a lack of an efficient process for collecting the information, and concern over the confidential nature of the question. Online enrollment processes, along with systems that allow parents to provide the information (while not requiring the information) help to overcome barriers to collecting this important information related to management of students' health conditions.

Figure 4. Percentage of Kansas School Districts Tracking Student Health Insurance Status, 2017-18 School Year, N=226



V. STUDENT HEALTH SCREENINGS

School districts were asked questions about health screenings. The questions covered four different student health screenings. Kansas statutes currently require screenings for hearing, vision, and oral health. The survey also asked about body mass index (BMI) percentile screenings.

For each of the four screenings, results are grouped by:

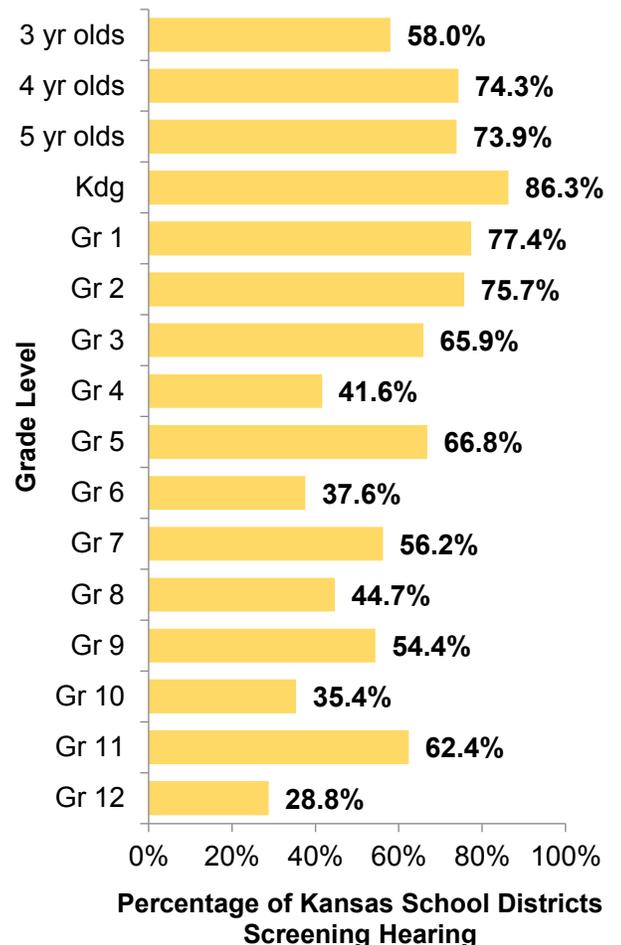
1. **Grade levels** screened by percentage of responding school districts, including 3-, 4-, and 5-year-old students enrolled in public schools as part of *Individuals with Disabilities Education Act Part B* statewide programs.
2. **Categories of personnel** conducting the screening by percentage (and percentage of trained screeners for vision and hearing).
3. **Number of students screened**, and number and percentage referred and seen by a health care provider (completed referrals) for the prior school year, 2016-17, as current year's screening information might not have been completed at the time of the survey.

Hearing screening

Kansas statute (K.S.A. 72-6229) requires that students “be provided basic hearing screening without charge during the first year of admission and not less than once every three years thereafter.” In asking school districts to indicate the grade levels regularly screened for hearing, the survey acknowledged that many school districts will screen new-to-district students and students with an Individualized Education Program (IEP) no matter the grade level, but the survey did not remind school districts of the current state statute for periodicity of screening.

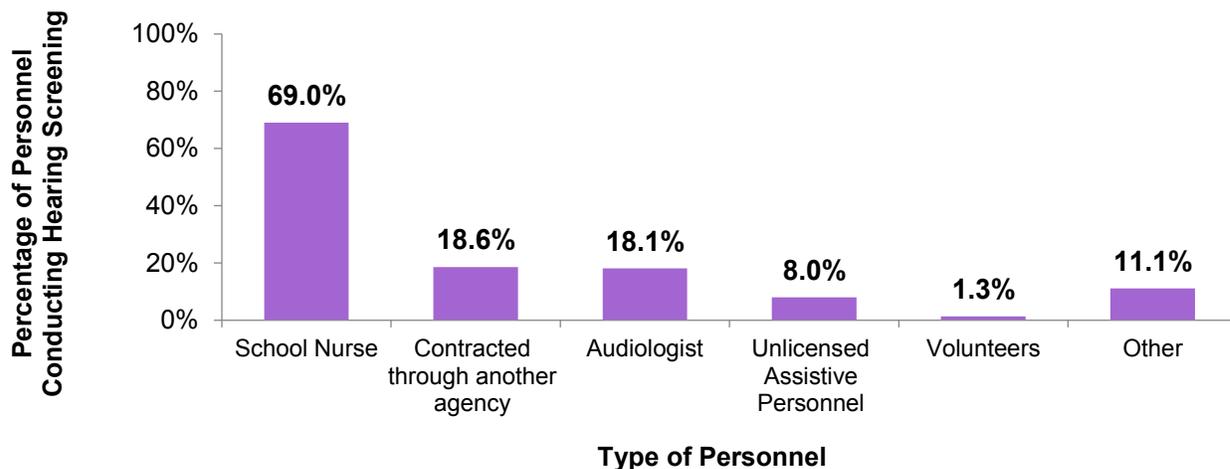
Figure 5 shows that kindergarten was the grade level with the highest percentage of hearing screenings conducted (86.3% of school districts), followed by Grade 1 (77.4% of school districts), Grade 2 (75.7% of school districts), 4-year-olds (74.3% of school districts), and 5-year-olds (73.9% of school districts). Grade 12 had the lowest percentage of hearing screenings held (28.8% of school districts).

Figure 5. Percentage of Kansas School Districts Screening Hearing by Grade Level, 2017-18 School Year, N=226



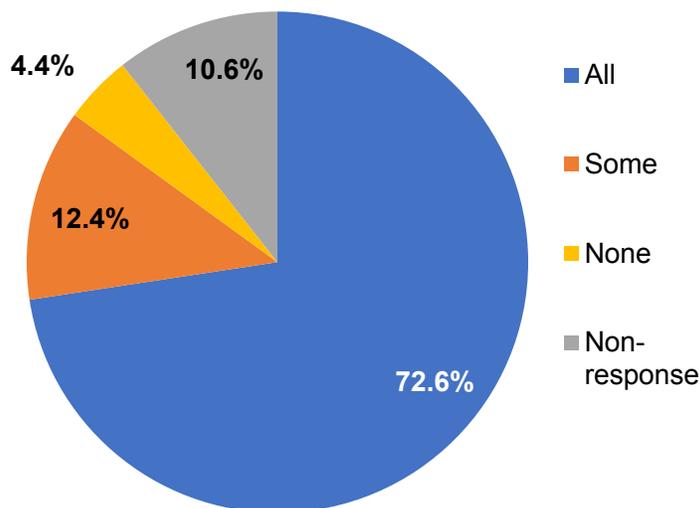
Results pertaining to the personnel conducting the hearing screening in Kansas school districts is displayed in [Figure 6](#). School nurses conducted the majority of hearing screenings in Kansas school districts (69.0%) while 18.6% were contracted through another agency to conduct the hearing screenings, 18.1% were conducted by an audiologist, 8.0% by unlicensed assistive personnel, 1.3% by volunteers, and 11.1% by other individuals.

Figure 6. Percentage of Personnel Conducting Hearing Screening in Kansas School Districts, 2017-18 School Year, N=226



Results pertaining to the percentage of hearing screeners trained are displayed in [Figure 7](#). Nearly three-quarters (72.6%) of Kansas school districts reported that all hearing screeners were trained, 12.4% reported that some were trained, 4.4% reported none of the hearing screeners were trained, and 10.6% did not provide a response to the question.

Figure 7. Percentage of Hearing Screeners Trained in Kansas School Districts, 2017-18 School Year, N=226



School districts were asked to report on the total number of students screened for hearing, the total number of students referred to a health care professional (i.e., those not passing the screening), and the total number of referred students who were seen by a health care provider for the 2016-17 school year. Of the 226 school districts, 96 provided data for hearing screenings. Three percent of students were referred, and only 25.4% of the referred students were seen by a health care provider as shown in [Table 6](#).

Table 6. Hearing Screening – Number of Kansas Students Referred and Referred Students Seen by Health Care Provider, 2016-17 School Year, N=96

Kansas School Districts	Hearing Screening	Percentage
Number referred	4,144	3.0%
Referred students seen by health care provider	1,052	25.4%

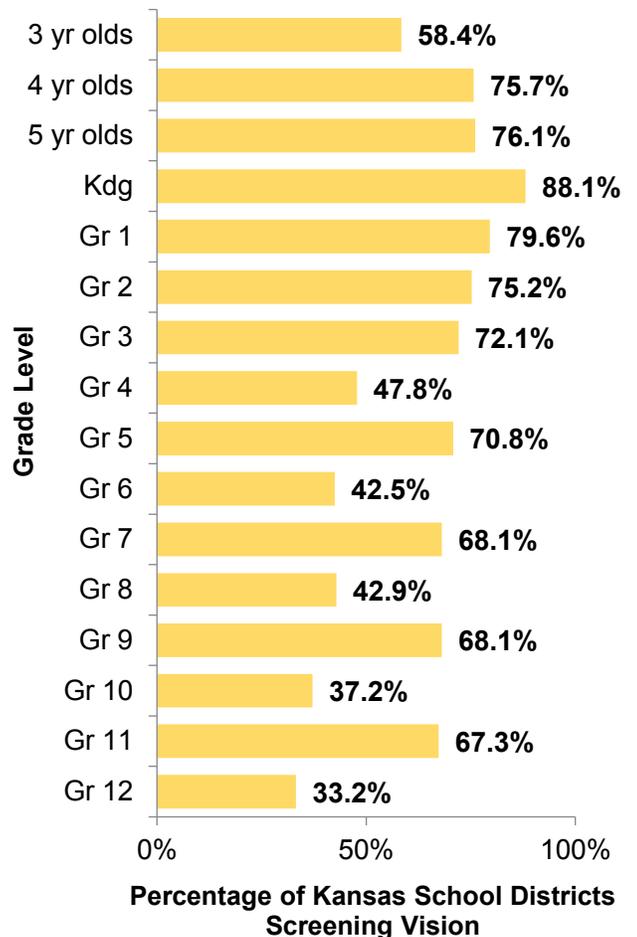
Notes: 140,029 students were screened. One school district reported not regularly providing hearing screenings at any grade level; 25 districts reported screening all students with IEP's annually; 19 districts reported on screening all new-to-district students; six school districts reported conducting hearing screenings annually on all students.

Vision screening

Kansas statute (K.S.A. 72-6242) requires Kansas schools to provide free vision screenings to each student no less than once every two years. In asking school districts to indicate the grade levels regularly screened for vision, the survey acknowledged that many school districts will screen new-to-district students and students with an IEP no matter the grade level, but the survey did not remind school districts of the current state statute for periodicity of screening.

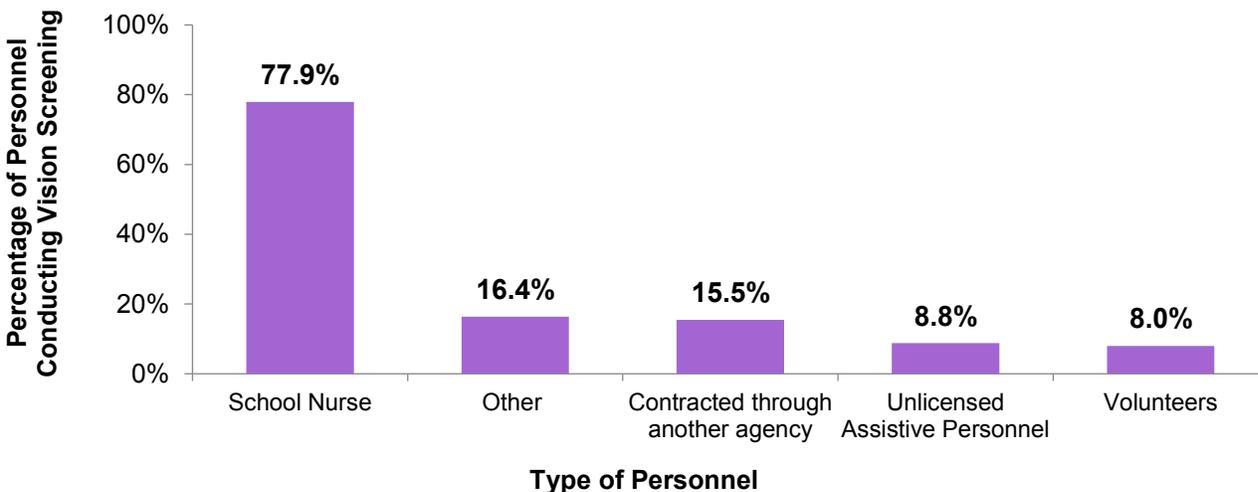
[Figure 8](#) shows that kindergarten was the grade level with the highest percentage of vision screenings held (88.1% of school districts), followed by Grade 1 (79.6% of school districts), 5-year-olds (76.1% of school districts), 4-year-olds (75.7% of school districts), and Grade 2 (75.2% of school districts). Grade 12 had the lowest percentage of vision screenings held (33.2% of school districts).

Figure 8. Percentage of Kansas School Districts Screening Vision by Grade Level, 2017-18 School Year, N=226



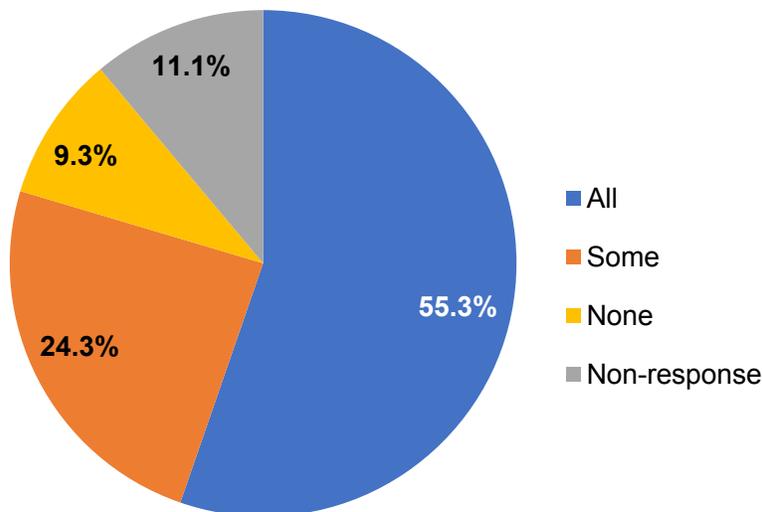
Results pertaining to the personnel conducting the vision screening in Kansas school districts is displayed in [Figure 9](#). School nurses conducted the majority (77.9%) of vision screenings in Kansas school districts while 15.5% were contracted through another agency, 8.8% by unlicensed assistive personnel, 8.0% by volunteers, and 16.4% by other individuals.

Figure 9. Personnel Conducting Vision Screening in Kansas School Districts, 2017-18 School Year, N=226



Results pertaining to the percentage of vision screeners trained are displayed in [Figure 10](#). Approximately half (55.3%) of Kansas school districts reported that all vision screeners were trained, 24.3% reported that some were trained, 9.3% reported none of the vision screeners were trained, and 11.1% did not provide a response to the question.

Figure 10. Percentage of Vision Screeners Trained in Kansas School Districts, 2017-18 School Year, N=226



School districts were asked to report on the total number of students screened for vision, the total number of students referred to a health care professional (i.e., those not passing the screening), and the total number of referred students who were seen by a health care provider for the 2016-17 school year. Of the 226 school districts, 99 provided data for vision screenings. Just over seven percent of students were referred, and only 19.6% of the referred students were seen by a health care provider as shown in [Table 7](#).

Table 7. Vision Screening – Number of Kansas Students Referred and Referred Students Seen by Health Care Provider, 2016-17 School Year, N=99

Kansas School Districts	Vision Screening	Percentage
Number referred	11,557	7.1%
Referred students seen by health care provider	2,262	19.6%

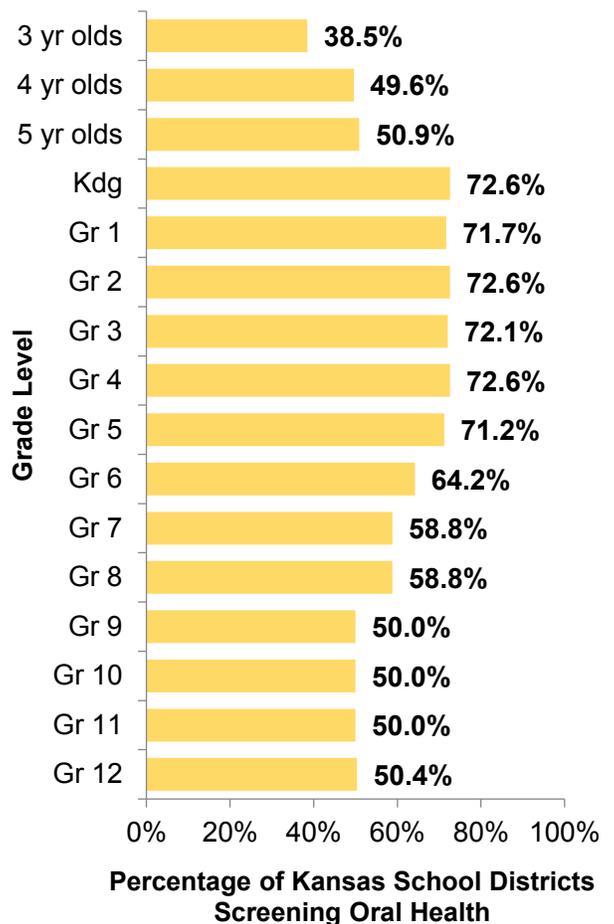
Notes: 162,285 students were screened. One district reported not regularly performing vision screenings at any grade level; 27 districts reported screening all students with IEP's annually; 23 districts reported screening all new-to-district students; 16 districts reported Lions Club volunteers assist with vision screenings; eight school districts reported using instrument-based screening with all or with lower grade level students (instrument-based screening is not a recommended tool for use in vision screening of individuals aged six years and older unless they are unable to participate in optotype-based screening); six school districts reported conducting vision screening annually on all students.

Oral health screening

Kansas statute (K.S.A. 72-6251) states that school districts are “required to provide for free dental inspection annually for all children, except those who hold a certificate from a legally qualified dentist showing that this examination has been made within three months.” In asking school districts to indicate the grade levels regularly screened for oral health, the survey did not remind school districts of the current state statute for periodicity of screening.

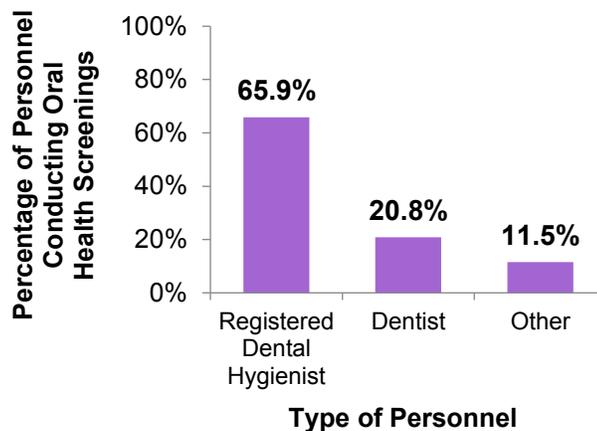
[Figure 11](#) shows that kindergarten and Grades 2 and 4 were the grade levels with the highest percentage of oral health screenings held (72.6% of school districts). School districts reported that three- and four-year-olds were receiving the least oral health screening across the state (38.5% and 49.6%, respectively).

Figure 11. Percentage of Kansas School Districts Screening Oral Health by Grade Level, 2017-18 School Year, N=226



Results pertaining to the personnel conducting the oral screening in Kansas school districts are displayed in [Figure 12](#). Only dentists and registered dental hygienists are qualified to conduct oral health screenings; school nurses and volunteers are not permitted to conduct these screenings. Training in conducting oral health screenings is available through KDHE Bureau of Oral Health. However, the survey did not inquire if oral health screeners had completed this training, as school personnel might not have access to this information. Nearly two-thirds (65.9%) of personnel conducting oral health screenings were registered dental hygienists, 20.8% were dentists, and 11.5% were other.

Figure 12. *Percentage of Personnel Conducting Oral Health Screenings in Kansas School Districts, 2017-18 School Year, N=226*



School districts were asked to report the total number of students screened for oral health and the total number of students referred to a health care professional (i.e., those not passing the screening) for the 2016-17 school year. Of the 226 school districts, 84 provided data for oral health screenings. Approximately one in twenty students (4.6%) were referred as shown in [Table 8](#). Unlike vision and hearing screening, the survey did not request the number of referred students seen by a health care provider.

Table 8. *Oral Health Screening – Number of Kansas Students Referred, 2016-17 School Year, N=84*

Kansas School Districts	Oral Health Screening	Percentage
Number referred	6,401	4.6%

Notes: 138,417 students were screened. 23 districts reported not regularly performing oral health screenings at any grade level; 14 districts reported parental “opt out” of oral health screenings for students; nine districts reported expanded dental services offered with parental consent; one district reported using a dental card program to document students seeing a dentist regularly.

Body Mass Index screening

Unlike the previous three health screenings, Kansas does not require school districts to conduct body mass index (BMI) screenings. [Figure 13](#) shows that among school districts conducting BMI screenings, Grade 3 had the highest single percentage of BMI screenings conducted (23.9% of school districts). Three-year-olds had the lowest percentage of BMI screenings conducted (8.8% of school districts).

Results pertaining to personnel conducting BMI screening in Kansas school districts are displayed in [Figure 14](#). One in five (20.4%) school districts had a nurse conduct BMI screening while 18.6% were conducted by a physical education (PE) teacher, 4.0% by unlicensed assistive personnel, 1.8% contracted through to another agency, 0.4% by volunteers, and 6.2% by other individuals.

Figure 13. Percentage of Kansas Schools Screening BMI by Grade Level, 2017-18 School Year, N=226

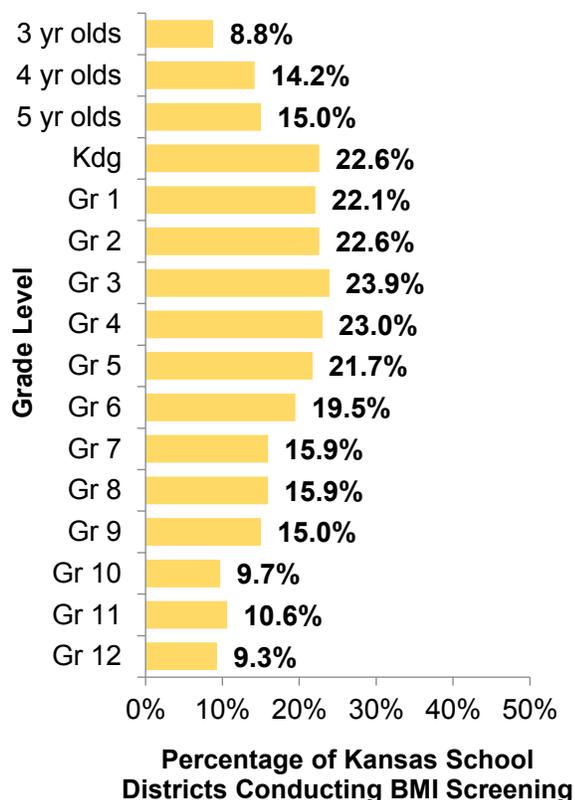
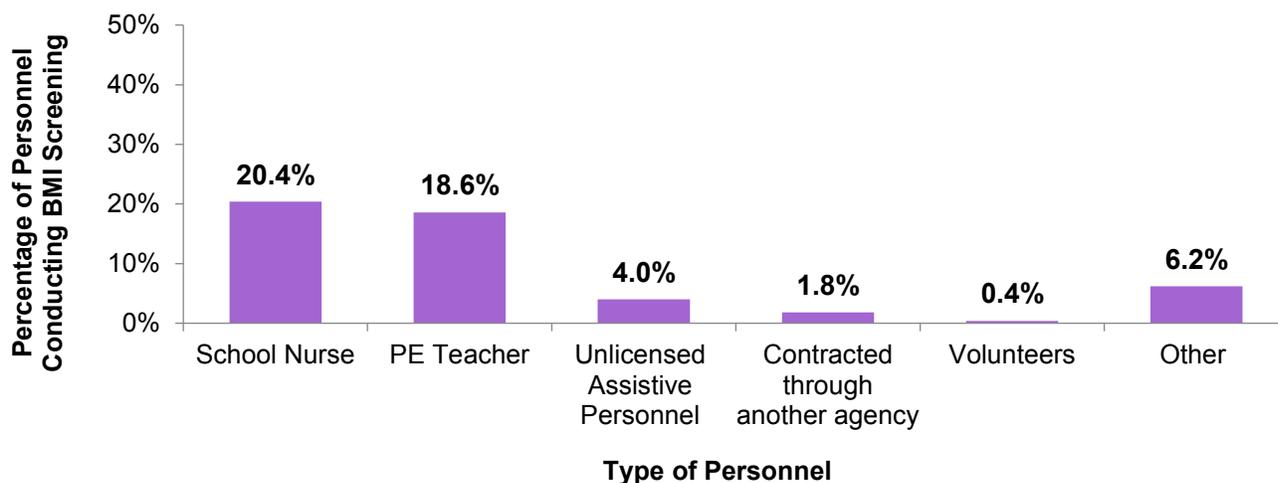


Figure 14. Percentage of Personnel Conducting BMI Screening in Kansas School Districts, 2017-18 School Year, N=226



School districts were asked to report the number of students screened and referred for the 2016-17 school year (Table 9), as well as the screening results according to percentile ranges (Table 10). Of the 226 school districts, only 30 school districts (13.3%) provided data for BMI screening. Results showed 38.7% of Kansas students screened have BMI percentiles falling in the overweight or obese ranges.

Table 9. BMI Percentile Screening – Number of Kansas Students Referred, 2016-17 School Year, N=30

Kansas School Districts	BMI Percentile Screening	Percentage
Number referred	1,364	3.6%

Notes: 37,975 students were screened. 107 districts reported not regularly performing BMI screenings at any grade level; seven school districts reported BMI screenings in conjunction with their school's physical education (PE) program and conducted by PE teachers in a variety of grade levels and timeframes.

Table 10. BMI Percentile Screening – Number and Percentage of Kansas Students in Various Percentile Ranges, 2016-17 School Year, N=14

Kansas School Districts' BMI Percentile Ranges	Number of Students (N=29,388 students)	Percentage of Students Screened
>95th	6,535	22.2%
85th to 94th	4,843	16.5%
5th to 84th	17,293	58.8%
<5th	717	2.4%

LIMITATIONS

1. Data from 226 districts are reflected in various portions of this report, representing 78.7% of Kansas public school districts and 93.3% of all Kansas counties. However, response rates varied across different portions of the survey and, as a result, limit the application of the results to the state overall. For example, several school districts did not provide complete data in the school nurse workforce and chronic disease sections by leaving fields blank. This limitation in data reporting can be corrected in future surveys by requesting that school districts respond with “zero” when applicable or to have an option to respond with “data unknown.”
2. The survey did not request referral completion information for oral health or BMI screenings. This limitation in reporting can be corrected in future surveys by requesting school districts report referral completion information for all health screenings.

CONCLUSIONS AND RECOMMENDATIONS

1. Survey results show more than 1,000 FTE health services personnel, including RN, LPN, and health aides, serve students in Kansas schools. The NASN position statement *School Nurse Workload: Staffing for Safe Care* provides schools with information and direction regarding safe staffing levels. In addition, *Delegation of Specific Nursing Tasks in the School Setting for Kansas* is available from the Kansas Board of Nursing and assists in guiding Kansas schools with proper nursing oversight to safely, and in accordance with the Kansas Nurse Practice Act, delegate nursing tasks and procedures in the school setting.
2. Asthma is the most prevalent condition of the five chronic health conditions measured by this survey, followed by severe allergy/anaphylaxis and seizure disorder. Type 1 diabetes is more prevalent than type 2 diabetes among students. Students with these and other chronic health conditions benefit from care coordination provided by school health personnel. School nurses improve equity and access to health care by reducing barriers to students’ health, including bridging health care and education, providing care coordination, advocating for quality student-centered care, and collaborating to design systems that allow individuals and communities to develop their full potential.⁸ Kansas school districts are encouraged to strengthen their capacity to manage chronic diseases in students by implementing electronic health records to accurately report on student health services and to query data more quickly.
3. Survey results reflect a need to increase efforts around completed referrals, as defined by the student receiving a referral examination by an appropriate health care provider. Completed referral does not necessarily mean that treatment has been completed, as sometimes treatment is ongoing, or the recommendation is for a follow-up exam within a few months or a year. Results reflected a referral completion rate of only 25.4% for hearing screening referrals and just 19.6% for vision screening referrals. As noted in the limitations section, the survey did not request referral completion information for oral health and BMI screening. A strong system for school health screening involves following up with parents/caregivers to help ensure that the referral examination occurs. School health personnel can identify and remove barriers to follow-up care, such as transportation barriers or a lack of knowledge of examination

procedure. Appropriate school health staffing ratios help ensure adequate time for follow-up care.

4. Issues of BMI and overweight/obesity are controversial topics in many school settings, which leads to fewer BMI screenings and therefore fewer students assisted with their overweight/obesity than with other chronic conditions. Oral health screenings must be conducted by a dentist or registered dental hygienist; the fact that school nurses and volunteers cannot conduct these screenings also leads to fewer oral health screenings and therefore fewer students assisted with their oral health issues than with other chronic conditions. To achieve more widespread BMI and oral health screenings in school districts requires continued state-level guidance and strategies, starting with engagement from SNAC. Likewise, the appropriateness and effectiveness of BMI screening in schools continues to be studied. Schools are encouraged to stay abreast of national and state guidance in this area.
5. School nurses are encouraged to stay informed of the standardized school health data initiative through NASN's *National School Health Data Set. Every Student Counts!*

RESOURCES

National Association of School Nurses' *National School Health Data Set: Every Student Counts!*
<https://www.nasn.org/nasn/research/everystudentcounts>

NASN Position Statement – *School Nurse Workload: Staffing for Safe Care*
<https://www.nasn.org/advocacy/professional-practice-documents/position-statements/ps-workload>

Kansas State Statute, Chapter 72, Article 62
http://www.kslegislature.org/li/b2019_20/statute/072_000_0000_chapter/072_062_0000_article/

Kansas Vision Screening Requirements and Guidelines
<http://www.ksno.org/wp-content/uploads/2018/10/6th-Edition-Kansas-Vision-Screening-Requirements-and-Guidelines-01.23.2019.pdf>

KDHE Bureau of Oral Health School Screening Program
http://www.kdheks.gov/ohi/screening_program.htm

Kansas School Nurses Organization – *Delegation of Specific Nursing Tasks in the School Setting for Kansas*
<http://www.ksno.org/delegationmedication-guidelines/>

KDHE's Bureau of Health Promotion
<http://www.kdheks.gov/bhp/>

KDHE's Bureau of Family Health
<http://www.kdheks.gov/bfh/>

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Information about future survey participation in Kansas can be directed to the Kansas School Nurses Organization at www.ksno.org.

REFERENCES

- ¹National Association of School Nurses. (n.d.) National School Health Data Set. Every Student Counts! Retrieved from <https://www.nasn.org/nasn/research/everystudentcounts>
- ²U.S. Department of Health and Human Services. (2011). Health, United States, 2010: With special feature on death and dying. Hyattsville, MD: Centers for Disease Control and Prevention, National Center for Health Statistics. <https://www.cdc.gov/nchs/data/hus/hus10.pdf>
- ³Van Cleave, J., Gortmaker, S.L., Perrin, J.M. (2010). Dynamics of obesity and chronic health conditions among children and youth. *JAMA*, 303(7): 623-630. doi: 10.1001/jama.2010.104
- ⁴Anderson, G. (2010). Chronic care: Making the case for ongoing care. Princeton, NH: Robert Wood Johnson Foundation. Retrieved from <http://www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf54583>
- ⁵National Association of School Nurses. (2018). School nurses: An integral member of the school team addressing chronic absenteeism (position statement). <https://www.nasn.org/advocacy/professional-practice-documents/position-statements/ps-absenteeism>
- ⁶Bethell, C., Forrest, C., Stumbo, S., Gombojav, N., Carle, A., & Irwin, C. (2012). Factors promoting or potentially impeding school success: Disparities and state variations for children with special health care needs. *Maternal & Child Health Journal*, 16 (Supp 1), S35-S43. doi: 10.1007/s10995-012-0993-z
- ⁷Forrest, C. B., Bevans, K. B., Riley, A. W., Crespo, R., & Louis, T. A. (2011). School outcomes for children with special health care needs. *Pediatrics*, 12(2), 303 -312. doi: 10.1542/peds. 2010-3347
- ⁸Johnson, K. (2017). Healthy and ready to learn: school nurses improve equity and access. *OJIN: The Online Journal of Issues in Nursing*. 22(3), Manuscript 1.