

2013

The School Nurse Shortage in Philadelphia: Prognosis & Prescription for Change

The Problem

Faced with a budget shortfall of more than \$700 million, the School District of Philadelphia laid off 47 nurses effective December 31, 2011. Subsequent layoffs and the retirement of 25 additional nurses resulted in a net loss of more than 100 school nurses in the 2011-2012 school year.

During the current academic school year (2012-2013), the Education Law Center and other legal advocacy organizations received calls from educators, families, and advocates raising concerns about the impact of the layoffs on children, particularly those with disabilities. We heard about children with special education needs and those with chronic health conditions for whom school nursing services are a critical and mandated service under federal and state law.

We also heard the stories of children whose enrollment was delayed in violation of state law because their immunization records could not be reviewed due to the absence of a school nurse. These reports caused us to wonder whether children with disabilities — and indeed, all children — were now placed at risk. How is the school nurse shortage affecting children? What is the impact on learning and instruction? As a result of surveys, in-depth interviews and research reviews, we have concluded that the shortage is having a more significant, widespread, and potentially long-term impact than anticipated. The shortage of nurses has created significant risks for students, and it is imperative that these issues be addressed in a thoughtful and strategic manner, with the input of school nurse experts, to ensure the safety and well-being of all children.



**How is the
school nurse
shortage
affecting
children?**

Legal Landscape

An nursing shortage impacts all children, but, in particular, children with disabilities, who are among the most vulnerable students. There are more than 19,210 students in Philadelphia with identified special education needs, accounting for approximately 14 percent of all children in the District.¹ Many of these students rely on nursing services, and the District is legally obligated to provide specific services in order for these students to benefit from classroom instruction.²

In addition to children with special education needs, the District is legally obligated to accommodate children with qualifying disabilities (such as asthma and diabetes) as required under Section 504 of the Rehabilitation Act of 1973.³ If school nursing services are not provided to accommodate these children, such children are discriminated against in violation of federal and state law.

Finally, medical safety and the provision of nursing services in school is a state requirement as well. Specifically, the School Code and related regulations mandate that a child in “private, parochial and public schools shall be provided with school nurse services in the school which the child attends.”⁴ In addition, the following health services must be offered to school-age children in both public schools (including all charter and even cyber schools) and private schools: medical and dental examinations; vision and hearing screenings; threshold screening tests; height and weight measurements; maintenance of medical and dental records; tuberculosis tests; and special examinations.⁵

Provision of nursing services in schools is a state requirement.

School nurses, in particular, perform the following duties:

- Assist in health programming and examinations
- Maintain student health records
- Advise students, teachers, and parents about the procedures of health exams
- Assist in explaining the health needs of individual children to parents and teachers and facilitate access to community resources for children
- Provide information for school personnel
- Plan for environmental needs and advise school officials on environmental adjustments necessary to meet the needs of students with special needs
- Assist in budget preparation for the health program
- Coordinate the school health program with community health programs
- Provide first-aid services and instructions for personnel responsible for giving first aid⁶

¹ Philadelphia School District (2012). *Enrollment – District Schools*. Retrieved from <http://www.phila.k12.pa.us/about/#enrollment>.

² *Individuals with Disabilities in Education Act* (“IDEA”), 20 U.S.C. §1400 *et seq.*, its implementing regulations at 34 C.F.R. Part 300 and state implementing regulations at 22 PA Code Chapter 14.

³ *Section 504 of the Rehabilitation Act of 1973*, 29 U.S.C. § 794 (“§ 504”), its implementing regulations at 34 C.F.R. Part 104, and the state implementing regulations at 22 PA Code Chapter 15.

⁴ 22 PA Code § 23.51

⁵ 28 PA Code § 23.1

⁶ 22 PA Code § 23.71-§ 23.79

Our Inquiry

In response to the calls we received, we reviewed research on public health and school nurses, and we conducted in-depth interviews with representatives of organizations serving children with disabilities, as well as school nurses and parents of children with healthcare needs. Based on this information, we developed a brief online survey which was distributed via e-mail to the Pennsylvania Association of School Nurses and Practitioners — Philadelphia region, Philadelphia parent organizations, and special education and disability rights advocacy organizations. Sixty-nine individuals, including 50 school nurses, completed the survey.

What We Learned

As a result of the survey, interviews and published research, we gained a better understanding of the impact of the school nurse layoffs in Philadelphia — the scope of the problem and first-hand accounts of how the nursing shortage is affecting schools and classrooms.

The vast majority of school nurses surveyed (more than 70 percent) reported a marked reduction in school nursing staff or staff time in schools, as nurses are required to “cover” two, three, or more school buildings. They reported that children with chronic health conditions requiring daily maintenance are the most significantly impacted group, followed by children whose families do not have health insurance, children with multiple disabilities, children whose parents are unable to go to school to administer medications, and children whose families lack financial resources.

School nurses reported a marked reduction in school nursing staff, or staff time, in schools.

Impact of the reduction in nursing staff time on students



- 70 percent** reported medications and/or treatments were being administered by teachers or aides.
- 52 percent** reported that children are **not** receiving urgent medical care.
- 36 percent** stated that children do not receive their treatments at prescribed intervals.
- 30 percent** noted that children do not receive evaluations for a disability in a timely manner.

Overwhelmingly, school nurses explained that some non-medical school personnel are handling school nurse duties. They cautioned that there are significant risks and costs associated with school staff serving in this role. The nurses expressed concern about the unavailability of urgent medical care when children’s health crises erupt or when they sustain injuries.

Significantly, they reported that the District has had to resort to assigning multiple schools to one nurse as it deals with the current shortage of nurses. This dramatic increase in nurse to student ratio decreases a nurse’s time at each school and prevents opportunities for nurses to develop a rapport and trust with students to identify disabilities, needed services and interventions.

Accordingly, the unavailability of nursing staff adversely impacts student health and also creates barriers for academic success as children may not receive

treatments at prescribed intervals and school staff may not identify or evaluate a suspected disability in a timely manner. Their compelling, qualitative observations included the following:

“Children that have chronic health problems such as asthma, diabetes, food allergies are not safe in schools without a full-time school nurse. School-based staff administer medication on days where no nurse is present. Numerous medication errors have occurred as a result. In addition, most [lay staff] are not aware of the signs and symptoms warranting further evaluation. If the District continues on the current path, we will soon realize the real cost.”

“The school nurse layoffs have affected the safety of all our children as schools are left without any coverage as school nurses are pulled in and out of schools.”

“There is no room to develop a rapport with our young clients, we are in and out. Without the ability to get to know our students, gain their trust and become aware of their needs our role is severely compromised. The impact of these cutbacks may not be fully understood for several years.”

“Last month my school principal called 911 three times. The three incidents could have been handled by the school nurse.”

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Impact of the reduction in nursing staff time on families:

68 percent described families as concerned/stressed that children will not receive care.

39 percent reported that families are trying to transfer their children into schools where a school nurse is present and on-site.

46 percent stated that parents are being asked/required to go to the schools to administer medication or treatment to their children.

Many nurses expressed concern about the toll of the school nurse shortage on families. In particular, they noted that parents are asked or required to administer medications in school and increasingly students are asked to transfer schools so that their health needs will be addressed — a practice which adversely impacts students socially, emotionally, and academically.

“Students with known medical issues that require full-time nurse assist[ance] are being transferred to schools that have nurses full time. This is not fair to a student who may have siblings in that school or may have already attended that school for years.”

“Poorer, younger, grandparenting families, families in shelter or with a member incarcerated all need additional support. Lack of school nurse presence in a school means we may not even be cognizant of a family’s unique situation.”

Impact of the reduction in nursing staff time on learning:

52 percent noted that children are missing classroom instruction time.

School nurse respondents also shared compelling observations regarding the impact of these cuts on learning. Children with chronic conditions may be sent home or miss school while teachers who are providing medication or handling issues formerly addressed by school nurse issues must leave the classroom — decreasing instruction time.

“Students are sent home for things that could be taken care of by the school nurse. Instead of going back to class they are going home missing class instruction. Less time to do follow ups on medical conditions, screening failures (e.g vision, hearing and weight). Less time to do mandated screenings and monitor immunization compliance.”

Beyond Band-Aids: Why School Nurses Matter

To understand the impact of these cuts, it is essential to fully understand the critical role of school nurses in today’s schools.

School Nurses Improve Learning

For children to learn optimally, they must be healthy. School nurses assess student health status and make referrals for students with health and mental health concerns and those with disabilities. They identify vision and hearing problems that impact learning and deliver urgent care. They prevent health problems and reduce the impact of chronic conditions. Nurses often identify issues that primary care physicians miss because school nurses see the students more often. Students are more likely to talk to a familiar school nurse about abuse, emotional problems, and other issues. School nurses provide health counseling and wellness programs that educate students on self-management and, in turn, promote their readiness to learn.

For children to learn optimally, they must be healthy.

School Nurses Address Chronic Conditions

In the past decade, Philadelphia — along with the rest of the nation — has experienced a sharp and dramatic rise in chronic medical conditions among children. The incidence rate of type 1 diabetes in Philadelphia has increased almost 30 percent since 1985, with a sharp increase in diagnoses among Black children ages 0-4.⁷ Additionally, an estimated 20-25 percent of children in Philadelphia screen positive for asthma.⁸ School nurses perform a critical role in treating these and other chronic health conditions. One study found that students with asthma who received case management and health education from their school nurse had fewer absences, fewer emergency room visits, and fewer hospital days than their classmates with asthma who did not receive these services.⁹

School Nurses Address Mental Health Needs

School nurses also play an important role in identifying and addressing students’ mental health needs. In a national survey of school-based mental health services, school nurses reported spending approximately one-third of their time providing mental health services.¹⁰ An estimated 20 percent of students may have mental health problems that go undiagnosed and untreated, which can negatively impact

⁷ Lipman, T.H., Levitt Katz, L.E., Ratcliffe, S.J., Murphy, K.M., Aguilar, A., Rezvani, I., Howe, C.J., Fadia, S., & Suarez, E. (2013). Increasing incidence of type 1 diabetes in youth: Twenty years of the Philadelphia Pediatric Diabetes Registry. *Diabetes Care*, epublication ahead of print.

⁸ Bryant-Stephens, T., West, C., Dirl, C., Banks, T., Briggs, V., & Rosenthal, M. (2012). Asthma prevalence in Philadelphia: Description of two community-based methodologies to assess asthma prevalence in an inner-city population. *Journal of Asthma*, 49(6), 581-585.

⁹ Levy, M., Heffner, B., Stewart, T., & Beeman, G. (2006). The efficacy of asthma case management in an urban school district in reducing school absences and hospitalizations for asthma. *Journal of School Health*, 76(6), 320-324.

¹⁰ Foster, S., Rollefson, M., Doksum, T., Noonan, D., Robinson G., & Teich, J. (2005). *School Mental Health Services in the United States, 2002-2003*. Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services. Retrieved from <http://store.samhsa.gov/shin/content//SMA05-4068/SMA05-4068.pdf>.

their academic work. By screening students for mental health concerns and making appropriate referrals to community mental health services, school nurses play an important role in addressing these unmet needs.¹¹

School Nurses Provide Preventative Health Care

Routine screenings conducted by nurses can identify serious health problems and help students access crucial medical care. One nurse in Philadelphia shared a story about identifying the source of a student’s significant hearing loss which was due to a bead stuck in the child’s ear. That screening led to surgery and helped to save the student’s hearing.

When a full-time school nurse is present, students are less likely to go home from school during the day for medical reasons.

School Nurses Improve Attendance

They help students manage chronic illness, administer medication and vaccines, and address health concerns that keep students at school more consistently and parents at work. They allow teachers to teach instead of providing health care. They give information on where to get health care, health insurance, counseling, etc., that keeps children in school, and provides important health education for students on topics such as hand-washing, which can reduce infection and absenteeism.¹² When a full-time school nurse is present, students are less likely to go home from school during the day for medical reasons.¹³ In one urban school district, more than twice as many students were dismissed from school early for injury or illness on days when the school nurse was unavailable, compared to days when a nurse was present.¹⁴

School Nurses Support the Community

School nurses help reduce calls to 911 and prevent hospitalizations by quickly identifying illnesses. For example, it was a school nurse in New York City who identified the first cases of the H1N1 influenza pandemic in the city, and her quick action helped to secure necessary treatment for students as well as prevent further spread of the virus.¹⁵ Research also indicates that students attending schools with school nurses are more likely to be up-to-date on their immunizations, contributing to improved public health in the community.¹⁶

¹¹ Puskar, K.R., & Bernando, L.M. (2007). Mental health and academic achievement: Role of school nurses. *Journal for Specialists in Pediatric Nursing*, 12(4), 215-223.

¹² White, C.G., Shinder, F.S., Shinder, A.L., & Dyer, D.L. (2001). Reduction of illness absenteeism in elementary schools using an alcohol-free instant hand sanitizer. *The Journal of School Nursing*, 17(5), 248-265.

¹³ Allen, G. (2003). The impact of school nurses on student attendance. *The Journal of School Nursing*, 19(4), 225-231.; Pennington, N., & Delaney, E. (2008). The number of students sent home by school nurses compared to unlicensed personnel. *The Journal of School Nursing*, 24(5), 290-297.

¹⁴ Wyman, L.L. (2005). Comparing the number of ill or injured students who are released early from school by school nursing and nonnursing personnel. *The Journal of School Nursing*, 21(6), 350-355.

¹⁵ Nelson, R. (2009). School nurses are needed more than ever. *American Journal of Nursing*, 109(12), 25-27.

¹⁶ Stanwyck, C., Davila, J., Wake, L., & Koshak, M. (2007). Assessment of kindergarten immunization rates in Colorado: School self-reports vs. Health Department audits, 2004-2005. *Public Health Reports*, 122, 461-465.

The Cost Benefit Analysis

In one national study, three out of four school nurses reported delegating the task of administering medications to unlicensed assistive personnel (e.g., school secretaries), which contributed to almost half of the nurses reporting errors in administering medication.¹⁷ Certainly such errors represent a terrible cost to our students and significant potential financial cost to the District. But the reduction in school nursing staff comes at a great “cost” to all of us. For our students, this cost is measured in risks to safety, reduced health and undermining a student’s ability to learn. For our District, we see the cost in reduced attendance and instruction time, lowered student achievement, increased stress on educators and school administrators and increased liability. There is also a significant cost to the health of our communities and a more immediate financial cost to our city. For example, every time a school principal does not have a nurse on staff and calls 911, it costs approximately \$950 per run. While this cost is not borne by schools and is reimbursable through Medicaid and Medicare, it is a significant cost to our city, as the Philadelphia Fire Department has reported that it collects less than 20 percent of such charges.¹⁸

Recommendations for Philadelphia

Currently, it appears that the District may have about 195 nurses serving approximately 200,000 students in public, parochial and private schools, including the roughly 150,000 students attending the District’s public schools.^{19, 20} This is clearly insufficient to address the health and education needs of students.

There is evidence that retaining the current rule of employing full-time rather than part-time nurses is advantageous and should continue. For example, one urban school district monitored students’ access to health services from full- and part-time school nurses. Although the researchers expected that full-time nurses would be involved in approximately 2.5 times the number of health activities as part-time nurses, they found that full-time nurses were 6-12 times more likely than part-time nurses to be involved in activities such as asthma visits, responses to critical incidents and trauma, mental health counseling, and health education activities. This study highlights that students attending schools with part-time nurses may not have adequate access to health services, compared to their peers in schools with full-time nurses.

Retaining the current rule of employing full-time rather than part-time nurses is advantageous and should continue.

However, there may be discreet tasks that could be handled by a part-time nurse or nursing student with supervision to maximize the use of highly trained school nurses deployed across the District. For example in *The Future of School*

¹⁷ McCarthy, A.M., Kelly, M.W., & Reed, D. (2000). Medication administration practices of school nurses. *Journal of School Health*, 70(9), 371-376.

¹⁸ <http://www.philadelphiacontroller.org/publications/audits/FireDept-AnalysisofAmbulanceFees.pdf>

¹⁹ DeNardo, M. (2013). Philadelphia School District eyeing external providers for some nursing services. *CBS Philly*. Retrieved from <http://philadelphia.cbslocal.com/2013/02/02/philadelphia-school-district-eyeing-external-providers-for-some-nursing-services/#respond>.

²⁰ Philadelphia School District (2012). *Enrollment – District Schools*. Retrieved from <http://www.phila.k12.pa.us/about/#enrollment>.

Nursing: Banishing Band-Aids to Improve Public Health Outcomes, the author emphasizes the shrinking amount of time nurses spend in each school and recommends hiring nursing assistants to help nurses with non-nursing functions (such as obtain records or contact parents.) to free up nurse time for work that fully utilizes their expertise.. The author further notes: "...today's harsh economic environment contributes to increases in nursing layoffs and/or unwise and unsafe clinical 'downgrading.' Hiring 'health aides' or other similarly undertrained personnel to conduct practices that are within the scope of practice for baccalaureate trained registered school nurses compromises student safety and stifles important public health and educational contributions made by school nurses..."²¹ It is therefore important that any additional staff brought in to supplement school nurses in the District be properly trained and supervised to ensure student safety and prevent costly mistakes. The District has recently begun negotiating with local universities to bring supplemental health services into schools, an important first step towards bringing more trained staff into schools.²²

Based on the foregoing, our recommendations are as follows:

- **Conduct a cost-benefit analysis** to show the value of school nurses for overall public health and for managing the costs of health care through greater access to preventative care.
- **Survey other large school districts** throughout Pennsylvania on their efforts to address the health and education needs of students following dramatic state funding cuts.
- **Adopt a student-to-school nurse ratio on a "per school" basis** that accounts for the impact of students with acute and chronic medical needs and special education needs. Increase the number of nurses in the District as needed to support the true needs of all students and ensure compliance with all applicable federal and state laws protecting both students with disabilities under the IDEA and those with qualifying disabilities under Section 504.
- **Review current policies and protocols** governing school nurse staffing and adopt specific district-wide policies to ensure the safety of students — e.g., limit the number of schools that nurses cover, ensure that children with disabilities cannot be segregated or miss instruction time due to their disabilities. Eliminate the policy of transferring and disrupting the school stability of students. Maintain a pool of certified school nurses to cover schools as needed (e.g., when nurses are sick).
- **Eliminate reliance on untrained personnel** to perform the duties of school nurse professionals, including administering medications. At the same time, in light of the unavailability of sufficient school nursing staff, train designated school personnel on common emergency medicine issues such as CPR and recognizing diabetes-related "warning signs" of distress.
- **Utilize nursing students to perform discreet tasks** with supervision by school nurses. This might include review of immunization records in order to ensure prompt enrollment.

²¹ Fleming, R. (2012). The future of school nursing: Banishing band-aids to improve public health outcomes. *Policy, Politics, and Nursing Practice*, 1-5; quote on p.3.

²² DeNardo, M. (2013). Philadelphia School District eyeing external providers for some nursing services. *CBS Philly*. Retrieved from <http://philadelphia.cbslocal.com/2013/02/02/philadelphia-school-district-eyeing-external-providers-for-some-nursing-services/#respond>.

Recommendations for Pennsylvania

State Law Must Be Revised: Currently, Section 1402 of Pennsylvania’s Public School Code sets forth a school nurse to student ratio of 1 nurse to 1,500 students. That ratio was established in 1965 and is unrealistic today. As reflected in recommendations made to Philadelphia’s School Reform Commission, the National Association of School Nurses (NASN) recommends a ratio of 1:750 and notes that a school nurse is a specialty, just like a surgical nurse or a pediatric nurse. They are not easily replaced by lay persons, due to their specialized knowledge. The U.S. Department of Health and Human Services has endorsed this nurse-to-student ratio in Healthy People 2020, a 10-year agenda for improving the nation’s health,²³ and the Pennsylvania Association of School Nurses and Practitioners also supports this recommendation.²⁴

NASN makes a critical distinction, however, that the nurse-to-student ratio of 1:750 is for healthy students. For students with special health care needs, NASN advocates for a nurse-to-student ratio of 1:250, and a ratio of 1:125 for medically complex students. Further, in some cases, students may require a 1:1 nurse. Pennsylvania’s law regarding the nurse-to-student ratio does not currently take into account the higher level of care required for students with special health care needs and medically complex students.

Lower nurse-to-student ratios have been associated with increased services provided to students with chronic conditions such as asthma and diabetes; increased counseling services provided to students with mental health or social needs; and increased follow up on school-related injuries and students’ vision problems.²⁵

Examine Best Practices in Other States: According to the Center for Disease Control’s 2006 School Health Policies and Programs Study, Pennsylvania has taken positive steps in school nursing but also trails behind on certain measures, compared to other states. Pennsylvania requires that newly hired nurses have an undergraduate degree, an RN license, and a state school nurse certification, requirements that are not always stipulated by other states. Pennsylvania was also one of only eight states to specify a nurse-to-student ratio.²⁶ Like the majority of states, however, Pennsylvania does not mandate the presence of one school nurse per school which is optimal or delineate the duties of school nurses to children with disabilities.²⁷

NASN-recommended nurse-to-student ratios:

1:750 for healthy students

1:250 for students with special health care needs

1:125 for medically complex students

²³ U.S. Department of Health and Human Services (2012). Healthy People 2020: Educational and Community-Based Programs. Retrieved from <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=11>.

²⁴ Joint State Government Commission, General Assembly of the Commonwealth of Pennsylvania (2004). Laws Regulating School Nurses in Pennsylvania and Other States. Retrieved from <http://jsg.legis.state.pa.us/resources/documents/ftp/publications/2004-47-Nurses%20Report.pdf>.

²⁵ Guttu, M., Engelke, M.K., & Swanson, M. (2004). Does the school nurse-to-student ratio make a difference?. *Journal of School Health*, 74(1), 6-9.

²⁶ Centers for Disease Control (2006). *State-Level School Health Policies and Practices: A State-by-State Summary from the School Health Policies and Programs Study 2006*. Retrieved from http://www.cdc.gov/healthyyouth/shpps/2006/summaries/pdf/HS_State_Level_Summaries_SHPPS2006.pdf.

²⁷ Centers for Disease Control (2006). *State-Level School Health Policies and Practices: A State-by-State Summary from the School Health Policies and Programs Study 2006*. Retrieved from http://www.cdc.gov/healthyyouth/shpps/2006/summaries/pdf/HS_State_Level_Summaries_SHPPS2006.pdf.

Support the Student-to-School-Nurse Ratio Improvement Act of 2012:

We would also urge Pennsylvania federal legislators to support this Act. This legislation would authorize the Secretary of Education to make matching demonstration grants to local educational agencies (LEAs) in which the student-to-school nurse ratio in each of their public elementary and secondary schools is 750 or more students to every school nurse to reduce such ratio. This would grant priority to LEAs like Philadelphia that serve a high number or percentage of impoverished students and demonstrate the greatest need for new or additional nursing services for their students.

Conclusion

The dramatic reduction of school nurses in the School District of Philadelphia has had an immediate impact on the health and safety of all school children, and has placed additional burdens on children with chronic medical conditions, as well as on their families. Lost class time, increased absences, and poorly managed medical conditions will compromise students' academic achievement and later outcomes as well. The District faces increased liability when school personnel without professional training take on medication management and monitoring, and there is a direct cost to the city in unnecessary 911 runs.

Utilizing highly trained school nurses is a critical investment in both the life and education of individual children and in the long-term future of our schools and communities. This is a worthy investment that demands greater attention and financial commitment from our school district and our state.

Utilizing highly trained school nurses is a worthy investment.

The **Education Law Center** is a non-profit legal organization dedicated to ensuring that all students — particularly the most vulnerable and at-risk students — receive a high-quality public education.

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