

WHITE PAPER REPORT TO GUILFORD COUNTY COMMISSIONERS

From Guilford County Project One A volunteer community based initiative

regarding GUILFORD COUNTY SCHOOL NURSES

December 2017



Table of Contents

Project ONE: Who we are, how we formed, webpage	03		
Problem Statement: How we see the issue	03		
The Value of One Professional Nurse for Every School			
The Responsibilities of a School Nurse	07		
How Nurses Support the Goals of the North Carolina State Board of Education			
Old and New Ways to Determine Nurse Workforce			
School-Based tele-health - an option for the future			
Guilford County School Nurses by the Numbers			
New Positions for 2017-18			
Getting it Done: The Cost to Hire One Nurse in Every School			
Conclusion	14		
List of Works Cited			

Information and recommendations referenced in this report are in no way to be understood as reflecting the positions or suggestions of the Guilford County Department of Public Health (GCDPH), or the Guilford County Schools (GCS). The ideas that follow belong wholly to the Project ONE team. Five statements reflecting consensus opinions of Project ONE are inserted in italics throughout the text and at the end as Attachment I.

Robin Lane, RN, PNP, MPH, with assistance from Project ONE intern, Amy Shadron, RN, BSN, a Master's candidate in the University of North Carolina Gillings School of Global Public Health, is the principal author of this white paper. Members of the Project ONE team created the Fact Sheets which became the foundation of this report. We are especially grateful to Jean Regan, RN, BSN for her work on our Fact Sheets.

NOTE: Use of the word "nurse" in this report, unless otherwise stated, should be understood to refer to a Registered Nurse (RN). The term "school nurse" in the report always refers to a RN who typically has a Bachelor's degree with or without certification earned according to national standards.

Introduction - Project ONE

Project ONE is the name given to the collaborative work of community volunteers. Its purpose is to educate Guilford County about the role of the registered professional school nurse (RN) and the need for at least one full time RN in every school.

The Project ONE team began meeting in the spring of 2016 following a presentation to the Guilford County Health and Human Service Advisory Committee (Advisory Committee) by staff of the Guilford County Department of Public Health (GCDPH), the agency in charge of school health nursing in Guilford County. The original Project ONE team was made up of volunteers from the Advisory Committee. As the group determined a need for broader community participation, additional members came on board. For a list of current members of the Project ONE team, please visit the webpage at www.guilfordcountyprojectONE.com.

This document is a compilation of the information gathered by the Project ONE team in their first eighteen months of study. A series of Fact Sheets and Frequently Asked Questions (FAQ's) as well as a list of scholarly articles and news stories, are available on the webpage.

Problem Statement

Nurses have been delivering care to children in schools since the beginning of the last century. With each passing decade, their role and contributions have become more firmly established, and yet, while the need for professional school nurses is now greater and better understood than ever before, the number of nurses available for students in our public schools remains woefully inadequate. In fact, data included in this report reflect a loss of the number of funded positions in relation to the number of students and schools in Guilford County Schools (GCS) over the past 12 years. In school year (SY) 2011-12, Guilford County was third from the bottom of North Carolina school systems in the ratios that compared number of nurses to students.¹ In SY 2016-17, the number of students for each nurse in Guilford County was double that of the average across the state.²⁻³

Ironically, this occurred during a time when the connection between health, learning and adult productivity enjoyed greater acknowledgement and firmer support.⁴ We have long known that students not in school and in their seats, cannot learn the material required of them to perform on grade level. We now understand that students in school who do not feel well, emotionally or physically, also cannot learn.⁵ Academic achievement with its ties to improved high school graduation rates, and the greater earning potential that relies on good health, is essential to bringing business into Guilford County. Simply stated, success for students and the whole of Guilford County, is directly linked to and assured by partnerships between school, family and health communities.^{4,6,7} Project ONE is committed to the protection of the health and well-being of our students: this is essential to developing the next generation of leaders and a robust economic climate for our citizens.

It is our belief that the time has come for Guilford County's school and health personnel, policy makers, parents and community representatives to develop a strategy that will give our students an adequate number of professional nurses to meet our students' health and learning needs. We are grateful and encouraged by the positive steps Guilford County Commissioners have taken so far. It is our hope that this report will provide some of the information and insight required to continue that progress.

The Value of One Professional Nurse for Every School

When asked, almost everyone who cares about children will readily agree that it is important to have a full-time health professional present in every school. In fact, most parents believe this is indeed the case (personal communication, Robin Lane, MPH). If questioned further, individuals point to the most visible of a school nurse's duties as reasons for their support⁸: being available for first aid and emergencies, to intervene when a child becomes ill, to deal with outbreaks of disease and or other conditions (lice) with the potential to affect other children.

The role of today's school nurse extends way beyond band aids and first aid.⁸ The National Association of School Nurses (NASN) describes their current role this way: "School nursing, a specialized practice of nursing, protects and promotes student health, facilitates optimal development, and advances academic success. School nurses, grounded in ethical and evidence-based practice, are the leaders who bridge health care and education, provide care coordination, advocate for quality student-centered care, and collaborate to design systems that allow individuals and communities to develop their full potential.⁹

The prestigious American Academy of Pediatrics (AAP) expands this description, adding that nurses "monitor and manage chronic disease, offer health education, ensure emergency preparedness, and provide case management along with other more visible duties". The AAP reminds us, however, that even with the addition of many expanded services to cover growing responsibilities, the "core focus of keeping students in school remains unchanged. School attendance is essential for academic success".⁶

Keeping kids in school healthy and ready to learn is harder with each passing day. As we learn from a review article published by NASN, "there are significantly more children in special education and more children in school with medically fragile conditions and chronic illnesses" than ever before. ⁵ Consider these facts (a sampling of the many available in the review): from 2002 to 2008, the percentage of children in special education with health impairments due to chronic or acute health problems increased 60 percent." ⁵ In similar fashion, in the time from 2005 and 2011, the number of chronic health conditions among all children enrolled in public school rose by 48 percent.¹⁰ The prevalence of food allergies, which carries a risk of a life threatening anaphylaxis, increased from 3.4 percent in 1997-99 to 5.1 percent in 2009-11 ⁶ and continues to grow; the prevalence of major depressive disorders increased in adolescents by 30 percent, from 8.7 percent in 2005 to 11.3 percent in 2014 as reported in a 2016 study.¹¹ According to Susan Hawks, BSN, School Health Nursing Supervisor, GCDPH, school nurses wrote and followed mandated care plans¹² for over 200 insulin diabetic children during the 2017-18 school year (R. Lane, oral communication, June 2017). It is important to note that in addition to growth in the severity and prevalence of chronic health conditions, the complexity of our health care system has also increased dramatically. Nurses, skilled participants in health care delivery, are "the eyes and ears of the school community".⁷ They have the unique ability to access both school records (protected by the Family Educational Right to Privacy Act or FERPA) and health information (protected by the Health Insurance Protection and Portability Act or HIPPA), so that as one health policy analyst noted, "being physically present throughout the school day makes them (nurses) uniquely positioned to be a child's health care touch point across multiple settings from the classroom to the physician's office."⁷

Finally, as influences beyond direct medical care on a child's cognitive development are now widely recognized⁴, assessing these "determinants of health" means the modern school nurse has one more consideration to add to an already long list of responsibilities. Determinants of health range from limited access to exercise, to "food and housing insecurity to safety at home".⁷ Local statistics illustrate how just one of these influences, food insecurity, has grown: in 2003, 44 percent of GCS students participated in the Free and Reduced School Lunch program. Last School Year (SY), 2017-17, the Guilford County Schools School Nutrition Services reported that 51.61 percent (R. Lane, oral communication, June 2017) of students participated in the program, an increase of an astonishing 27 percent in a little more than a decade!

When these factors are considered together it is no surprise that research demonstrates the value of an adequately staffed school nurse program. Recent studies document that school nurses:

- Are cost effective. For every dollar invested in a school nurses, savings of \$2.20 might be gained.¹³
- Reduce the rate of school absenteeism. In 2013, researchers at the North Carolina Department of Public Instruction (DPI) examined the question of whether higher levels of school nurse staffing were associated with the number of days economically disadvantaged students were absent from school. The study took note of previous research showing that, compared to children who did not miss any school, children who miss 2 weeks or more of school are almost twice as likely to score C's and below. Findings from the DPI study support the view that adequate staffing (with the 1:750 ratio recommended at that time) reduced absenteeism even when those schools had higher concentrations of poverty.¹⁰
- Protect teaching/administrative time and improve productivity. When a health professional is present in the school, teachers and administrators spend less time addressing acute and chronic health problems.³ In a study by the GCDPH in 2016 (Attachment II), school staff were surveyed to determine how much time they spent on medical related tasks each day. The study found that across the system, each school's staff spends more than 8 hours, on average, each day on health-related care (medication administration, procedures, addressing concerns).¹⁴ These findings are consistent with state and national data sources.^{3,5,15-16}
- Enhance collaboration. Because nurses can collaborate with other health care providers who are caring for students, they are an essential link to community resources.⁶ Nurses play a significant

role in assisting families to find and establish a medical home and a consistent source of primary care.^{3,6,7,17} Moreover, they "are an essential arm of public health, promoting wellness and preventing injury.¹⁸ Experts argue that this core function very much depends on the time a nurse is able to spend in the school not only to build the necessary relationships for an assessment, but also to have the time to complete interventions and referrals.¹⁸

- Prevent suicide. From 2006-2015, suicide rates have increased in North Carolina from 1.0 to 1.5 per 100,000 with a surge in 2014 with a rate of 2.0 per 100,000.¹⁹ In 2014-2015, North Carolina's school nurses reported 750 known suicide attempts and had 1,200 sessions related to suicidal ideation.¹⁶ Estimates are that school nurses now spend one-third of their time on mental health challenges.^{20,21} They are "advocates, facilitators, and counselors"²², who are particularly effective because they are a stigma free health provider in the school, one that students can see as problems arise, without the barriers created by lack of transportation, time delays in waiting for an appointment or fear of talking to a new provider who may not fully understand their situation. But they must be immediately available if they are to deal with a crisis, an important rationale for the new recommendation of a full-time nurse in every school. In fact, the role of school nurses in preventing suicide is so well recognized that the in their latest report, the North Carolina Child Fatality Task Force supports an increase in funding to support more school nurse positions as an important strategy to prevent teen suicide.¹⁹
- Address Opioid Crises. The number of opioid deaths in North Carolina increased 14.5_percent from 2014 to 2015, a statistically significant difference.²³ Additionally, the 2013 Partnership Attitude Tracking Study (PATS) revealed that almost one in four teens (23 percent) reported abusing or misusing a prescription drug at least once in his or her lifetime".²⁴ When armed with Narcan[™] (naloxone), which blocks the effects of opioids and reverses the effects of an overdose, nurses are enabled to save the lives of teens who otherwise might perish.²⁴ Schools are not exempt from the opioid crisis and school systems across the country now stock Narcan[™].

Administrators and those familiar with the range of health issues that arise during the school day well understand that the daily presence of a nurse at school, one who is familiar with the needs of the students served because she has established the relationships that make this possible, is integral to developing accurate assessments and interventions for the whole of what takes place on the school campus. When examination of all that is expected of the school nurse is paired with an understanding of the connection of good health to learning, the inescapable conclusion is that increases in staffing must take place if Guilford County Schools (GCS) are to make significant gains in performance outcomes.

The Responsibilities of a School Nurse

Because school nurses play a vital role in every aspect of a student's day in school, there is always more work than time allotted. This is especially true when nurses cover 4 to 6 schools, as is the case in Guilford County.²⁷ Here is a brief description of what a typical day might look like:

After arriving at a school where she has not been for several days, the nurse is greeted by one teacher's urgent request to look in on a child leaving class frequently to go to the bathroom; a second to respond to the school's concerns that a child newly diagnosed with diabetes has returned to school without medical orders for an emergency; and yet another to advise faculty and staff regarding an outbreak of lice in a Kindergarten classroom. The nurse adds these to the list of what was left undone when time ran out the last time she was at the school: evaluation of vomiting in a child known to have school phobia, fulfilling a promise to return a call to a parent who has asked for help finding health insurance. When the most urgent needs are taken care of, the nurse checks on students she is following with chronic illness such as asthma and/or depression, or to supervise teachers or staff who have been asked to perform medical procedures and/or administer medication. She might also need to set aside time for meetings (Individualized Education Plan (IEP) meetings, for example. Always there are mandated tasks waiting for her attention: vision screenings and referrals, immunization reviews and emergency protocol reviews, writing of care plans for diabetes, documentation of all activities.^{2,27}

As school nurses know all too well, student health needs do not disappear during the summer months, and work does not end when traditional summer vacation begins.²⁸ Although most school nurse positions in Guilford County are 10-month positions, 12-month school nurses work over the summer to continue to follow children who have significant medical needs, destroy medications that were not picked up from the previous school year, prepare education materials and health forms for the next school year, and follow up on immunization records and referrals. Nurses employed in 12-month positions also give direct service to children in summer school, many of whom are enrolled due to absenteeism, as well as to those students in the County's 22 schools operating on an extended year calendar.²⁸

Project ONE supports the goal of one professional nurse for every public school based on our recognition that the role and responsibilities of today's school nurse requires many more "hands on deck", with at least one professional nurse in present in every school, or at minimum with every school having reliable daily access to a professional nurse. We gratefully acknowledge the wisdom of the County Commissioners in making the five new positions full 12-month positions.

How Nurses Support the Goals of the North Carolina State Board of Education

The North Carolina Board of Education (NCBOE) has identified 5 Goals in its most recent Strategic Plan, available online at <u>https://stateboard.ncpublicschools.gov/strategic-plan/goals-obj</u>. Nurses share a strong commitment to achieving these goals as described by North Carolina State School Health Nurse Consultant, Ann Nichols, in a recent presentation to the NCBOE.³ The common goals, shared by nurses and educators alike, are listed beneath each of the following BOE strategic goals.

- Goal 1: Every student in the NC Public Schools System graduates from high school.
 Common Goal: Keeping students in school. Nurses assess student needs, coordinate information and complete student health care plans.²⁹ "They provide, or teach and oversee staff in providing direct care and procedures".³
- Goal 2: Every student has a personalized education.
 Common Goal: Student based education planning and accommodation. Nurses participate in school based Student Support Service Teams, looking after how special needs students fare during the day, while tracking health status and its effect on their learning.³
- Goal 3: Every student, every day has excellent educator Common Goal: Support for faculty and staff work and wellness: When included in the local job description, nurses assist faculty and staff with common concerns such as stress, hypertension and weight management, including minor injury and other problems that faculty experience during their time on a school campus. When indicated (coordinating administration of flu vaccines) school nurses deliver important preventive care, all to keep teachers healthy and on the job. As mentioned above, studies show that a nurse's presence in the school saves 60 minutes for administrators, 20 minutes for every teacher, and 45 minutes for clerical staff, on average, every day.³
- Goal 4: Every school district has up-to-date financial, business and technology system
 Common Goal: Safe accurate and accessible student records: protected by both the Family
 Educational Rights and Privacy Act or FERPA and Health Insurance Accountability and Portability
 Act or HIPPA, school nurse records are trusted sources of accurate information needed for
 accurate student assessments.³
- Goal 5: Every student is healthy, safe, and responsible
 Common Goal: Healthy students cared for in a safe manner that assures good outcomes: this is the daily commitment for a school nurse and the focus of their work.³

The identification of these common goals underscores for the Project ONE team the fact that the value of school nursing is not in providing health services alone. It is intrinsically linked to achievement outcomes for our students. When a school nurse is present, school staff can do the work for which they were hired. We do not believe that the county is well served if expenditures for books, buildings and teachers are made without a recognition of fact that health promotion is an integral part of student success. We look forward to working with our county's educational leaders to help them achieve their student achievement goals.

Old and New Ways to Determine Nurse Workforce

Earliest Recommendations

Recommendations for school nurse staffing date back to the 1970's when national legislation assured the right of every child, including the rights of children with special health care needs, to an appropriate education in a public school. Over the next two decades' laws evolved from The Individuals with Disabilities in Education Act, to what is known today as "IDEA" legislation. IDEA's rulings, along with the medical advances that made it possible for medically fragile children to attend school, resulted in many more children with significant health challenges coming to our public schools.²⁹

In addition to bringing more children into the mainstream of public education, a notable and positive step forward, IDEA legislation shed light on the need for more realistic assessment of the number of nurses required to care for the general population of students. Early recommendations from professional organizations - the National Association of School Nurses (NASN), American Academy of Pediatrics (AAP), Centers for Disease Control (CDC), and others- endorsed using ratios (nurse: students) with a standard recommendation of one nurse for every 750 students (1:750), for a typical student body, and 1:250 for students with complex health care needs.¹⁸ These numbers are still in play (see below), but considered outdated, in the words of the AAP, to "meet the complex needs of students."⁶

And yet, 40 years later, even the old goal of using recommended ratios is illusory: not achieved in many US school districts⁸, rarely in North Carolina,¹⁰ and never in most of Guilford County's schools.²

Current Recommendations

In 2016, based on insights and hard data about students' needs, the use of ratios gave way to the current recommendation by NASN, AAP, CDC and others, for daily access^{6,18} to a professional nurse as a means to "health, safety and abilities to learn"¹⁸ with a goal of one full time nurse in every school.⁶

Obvious constraints to success in reaching this goal include limited dollars, nursing shortages and other external factors such as available space to house more staff. Until it is possible to place one nurse in every school, we endorse the use of an Acuity Business Model, outlined in Attachment III. The model works by assigning a score for 5 categories, with each category assigned a weight to determine a final score that will prioritize a school for nursing service. Elementary, middle and high schools receive a separate relative rank for better distribution. All schools receive a final acuity score from 1 to 3 with 1 being the lowest and 3 the highest. Weights are assigned as follows

- Identified health conditions (30 percent)
- Limited English proficiency students (10 percent)
- Students receiving free and reduced lunch (30 percent)
- Students needing medical procedures (10 percent)
- North Carolina ABC results performance composite (20 percent)

Nurses are assigned to schools according to the final acuity score, making it possible to "provide optimal student health services based on best practice with limited nursing resources."³⁰ along with four other identified goals. While this may seem to solve the problem of meeting needs at first glance, Project ONE views this as a temporary and incomplete answer to the critical need to adequately care for the students in the GCS system.

"One Nurse in Every School" is the official goal of Project ONE. However, we recognize that there are many challenges in achieving this goal and understand that the most realistic approach is to achieve it through incremental increases in funding for the school nurse program sufficient to add a minimum of 10 RN positions every year. Until full staffing can be achieved, we support the use of the Guilford County Business Acuity Model to prioritize nursing assignments.

School-Based tele-health - an option for the future

Another way to enhance school nursing services is by using telehealth technology.³¹ Telehealth means that primary care or specialist services are provided virtually using smart phone and/or other internet based technology. Historically, this has been a way to serve populations in rural areas of a state with barriers to access created by distance and limited resources.

In several school systems outside of Guilford County, telehealth is used as an adjunct to health care provided by the school nurse, when a student needs referral or follow-up with a health care provider. When properly implemented, with full access to appropriate medical providers (typically nurse practitioners or physicians), telehealth has been shown to:

- Protect expenditures of time and dollars when a child is ill. In addition to better chronic disease management, telehealth allows for earlier diagnosis and treatment of acute illnesses. Use of telehealth may also preserve precious family dollars by reducing the times parents leave work to tend to an ill child.³¹
- More effectively manage chronic illnesses. Children with ADHD, asthma, and type 1 diabetes participating in telehealth programs showed improved health outcomes (improved behavior, more symptom free days, and better hemoglobin A1C, a measure of diabetic control, respectively) with fewer hospitalizations. ³¹
- Enhance communication. When telehealth connects to a child's medical home, it can provide a direct link in real time from the school to the healthcare provider, bringing schools, providers, and parents together. This has the potential to reduce costly miscommunication as everyone hears the same information at the same time with a chance to clarify. Telephone conferencing can also mean that parents have more immediate access to resources.³¹
- **Reduce absenteeism.** One study found a 63 percent reduction in absences from illness in schools using telehealth.³¹

Implementation challenges described in the literature and acknowledged by Project ONE include, but are not limited to the following:

- 1. Most of the current models are in rural areas. There is scanty evidence to demonstrate how it might work in GCS or how much time it would take from the work nurses are currently doing.
- 2. Startup expenses, including equipment, time for training and problem solving as technical issues arise, are hard to estimate.
- 3. Currently there is no fee for service reimbursement in place to compensate nurses for the work they already do in schools (case management, for example). Revenue streams from sources other than direct billing are limited. This presents a challenge, as Telehealth ultimately will demand paying for the additional providers needed for supervision and medical advice. Without reimbursement, these providers could not be expected to supply adequate support.
- 4. Adding a new way to perform school nurse functions will require a change in how nurses and their health care partners view their roles and relationships. School nurse buy-in is an important factor to consider when implementing school based telehealth. Clarification of responsibility and liability issues must be a first step before a telehealth program is launched

Project ONE agrees with the National Association for School Nurses' (NASN) statement that, "While neither telehealth nor any other technology replaces the registered professional school nurse, the availability of telehealth provides a valuable tool to assist the school nurse in providing a more complete, coordinated approach to student health services in school."³² Project ONE sees many possible pitfalls if a Tele-health program is put in place without careful consideration of whether it might increase the workload of our current school nurse workforce without bringing a commensurate benefit.

Guilford County School Nurses by the Numbers

Guilford County is the third most populated county in the state of North Carolina³³, but near the bottom or our state's 115 LEAs in terms of outdated nurse-to-student ratios.³⁴ By the numbers the picture looks like this: North Carolina has on average approximately one nurse for every 1,000 students. Ratios in Guilford County are more than double that number at approximately one for every 2,000 students. This last school year, (2016-17}, the number of nurses in the GCS was just two more than it was in 2002 with nurses serving almost 10,000 more students and 25 additional schools.² Until newly funded nurses are hired, Guilford County will have 33 RN's, 3 School Health Aides (SHA's), and 3 supervisors serving over 71,000 students in 125 district schools.

The use of SHA's began in 2016 when Guilford County Commissioners authorized hiring them to expand health services with smaller expenditures than would be required for a comparable number of nurses.³⁵ The SHA's have proven to be a positive addition to the nursing staff in our county, however it is

important to recognize that they are unlicensed personnel who can assist but do not replace a RN.¹⁷ Their role, defined in state statute under rules of the North Carolina Board of Nursing (NCBON), is distinct from that of the RN. SHA's work in the school only when supervised by a RN, and they can take on only those tasks delegated to them by the professional nurse. For example, under supervision, SHA's may review immunization records, or perform first aid, but they are unable to conduct independent assessments (a student who is vomiting or complains of being dizzy, for example), or to offer their own health management advice.

Project ONE does not include SHA's in our use of the term "school nurse". SHA's are unlicensed personnel. Our goal of "one nurse in every school" means licensed professional nurse or RN in every school. We believe this is an achievable, appropriate, and necessary goal.

New Positions in 2017-18

In June 2017, the Guilford County Commissioners approved funding increase of \$450, 367 to cover the cost of adding 4 new RN nurse positions and 1 supervisor to the current staff.³⁶ This translates into a significant improvement, especially because the nurses will be hired for 12-month positions. However, the increase in the number of students and schools in the county (see table below), along with the known yearly increase in the prevalence of chronic conditions^{6,29}, including mental health issues,²¹ means that the additional positions are a way of keeping pace rather than a way of moving forward.

Using the more appropriate standard of one full-time professional nurse in every school, Guilford County, will have a shortfall of 90 nurses (the additional number needed to cover 125 schools) in the coming years. Stated another way, if 4 nurses are added each year, it will take at least 22 years to reach the desired goal of one nurse for every school. It is worth noting that one large county in North Carolina, Mecklenburg, ³⁵ has already reached our goal of one RN for each school, and another, Wake, is engaged in significant planning efforts to meet the needs of their public-school students. Five LEA's across the state have a full time professional nurse in every school.³

Getting it Done: The Cost to Hire One Nurse in Every School

Across the state of North Carolina, more school nurses are employed by LEA's (55 percent) than by Health Departments (40 percent) with a very small percentage (5 percent) employed by a "hospital/health alliance." ³ In Guilford County, almost all the nurses working in schools are employees of GCDPH, 33 positions in place at this writing (10/2017) with 4 new positions to be added with allocations in the 2017-18 budget, three nurses are employees of Guilford County Schools

Source	Amount	Requires renewal Yes/No
School Nurse Funding Initiative (State)	\$ 100,000	No, granted in bi-annual legislative budget with recurring funds
Child Health Agreement (State)	\$ 554,956	Yes, Annual, must reapply
Guilford County Schools	\$ 306,845	Yes, Annual, must reapply
Guilford County Government*	\$ 1,813,817	No, but dollar amount is depending on what is allocated by Commissioners in their annual budget
TOTAL	\$ 2,775,618	A mix: State 24%, Local 76%

In 2016-17, the Health Department received grant/support funding from the following sources:

Source: Guilford County Department of Public Health and Ann Nichols, State School Health Nursing Consultant. Across the state, the source of funding is more evenly split between state and local sources (R. Lane, personal communication, July 2017). *In 2017, Guilford County funds will increase by \$459,367 to cover the five new positions described in previous text.

Qualifications and compensation

School nurse salaries are traditionally lower than those for their hospital counterparts, According to the U.S. Workforce Study, in 2014 the national average salary of a professional nurse (RN) across settings, was \$69,790, with a national average salary for a school nurse of \$55,290.⁸ This underscores the competition GCDPH can expect as they seek to hire additional qualified staff.

In Guilford County, the starting salary for an entry level school nurse (SHNI) is \$3,982 per month or \$39,820 for 10-month positions, \$47,784 per year if a nurse is employed for 12 months. The county employees 28 nurses as SHN I's. Nurses who have additional competencies (including certification) can apply for one of five SHN II positions as they become available. The average starting salary for a SHN II is \$41,810 for a 10-month position and \$50,172 for a 12-month position (email communication from GCDPH to R. Lane, August 2017).

The following calculation shows an approximation amounts needed for current salary support (provided here as illustration of typical costs, not to be taken as actual numbers): 28 positions at \$47,784 = 1,337,952, five positions at \$50, 172 = \$250,860 resulting in \$1,588,812 needed for salary support.

Salary figures are estimates and because they do not include fringe benefits (FICA, retirement, 401 K contributions, life insurance, disability insurance, health insurance), they do not reflect the total cost to hire a nurse. In Guilford County school nurses can choose between different benefit packages, averaging around \$11,000 per nurse (email communication from GCDPH to R. Lane, August 2017). If included, the total cost to hire a nurse can roughly be calculated as between \$56,000 and \$58,000 per year. Other costs (office space and supplies, equipment, transportation, etc.) add to the dollar amounts needed to fully fund the school nurse program.

Of course, without funding to hire more nurses, hidden costs are still present; the consequence of inattention to preventable conditions. Known as "downstream" costs, these include everything from the need to fund remediation when students are unable to achieve academically, to the requirement for more intense therapy when mental health illness is ignored.¹⁸

Conclusion

The case for more school nurses is clear and strong. **For parents**, especially parents of children with a chronic disease, the case might be built on a need for peace of mind and the assurance their children are safe, in their seats and learning while they are at school. **Educators** might emphasize a desire for improved academic achievement with more time to do the job for which they were hired. **Pediatricians** might underscore the need for better coordination with the care they provide in their offices. **Business leaders and elected officials**, might see adequate school services as an important means of advancing economic development. **Everyday citizens** might describe the need for more school nurses as a matter of common sense. Whatever the reason or perspective, the time has come to provide our students with the services the experts tell us they need. We hope you will join us in the quest for how our county can participate with others across the state and country in meeting the recommendation for safe staffing: one nurse in every school.

Join the conversation at <u>www.guilfordcountyprojectone.coms</u>

Addendum

In January 2018, shortly after this White Paper was completed, the Program Evaluation Division of the North Carolina General Assembly released "The Final Report to the Joint Legislative Program Evaluation Oversight Committee". The report, a descriptive analysis of the provision of nursing services in public schools, addressed current staffing levels, roles and responsibilities of school nurses (including limitations), and how the State and local school districts fund their programs. Findings from the State study are consistent with observations and conclusions detailed this White Paper.

Selected charts are attached to this White Paper: Summary (Attachment IV), Timeline of Policy (Attachment V), Detail and Frequency of Legislative Nurse Responsibilities (Attachment VI). To view the entire document, visit https://www.documentcloud.org/documents/4356961-School-nurses-report-2017.html

Special thanks to reviewers who supplied edits, comments and suggestions.

WORKS CITED

- 1. North Carolina Department of Health and Human Services. North Carolina Annual School Health Services Report for Public Schools: summary report of school nursing services. In:2012.
- 2. Project ONE. Fact Sheet 1: school health nursing services overview. In:2016.
- 3. Nichols A. North Carolina School Nurses, Partners in Education. In: NC Division of Public Health; 2017.
- 4. Robinson LR, Bitsko RH, Thompson RA, et al. *CDC Grand Rounds: Addressing health disparities in early childhood.* Centers for Disease Conrol and Prevention Morbidity and Mortality Weekly Report; July 28, 2017.
- 5. National Associaton of School Nurses. The case for school nursing: review of the literature. *NASN School Nurse*. 2013.
- 6. Council on School Health. Role of the school nurse in providing school health services. *Pediatrics*. 2016;137(6):1-6.
- Stahl EM. A Nurse in Every School *Health Policy Hub blog.* 2016.
 <u>https://www.communitycatalyst.org/blog/a-nurse-in-every-school .WXOuTsaZP1I</u>. Accessed June 14, 2016.
- 8. Camera L. Many school districts don't have enough school nurses. USA Today. March 23, 2016.
- 9. National Association of School Nurses. Definition of School Nursing. In. nasn.org
- 10. Smith R, Sherrod J. School nurses and student absenteeism: the role of school nurse staffing levels in NC's efforts to turn around low-performing schools. In: Instruction NDoP, ed. Raleigh NC Public Schools of North Carolina State Board of Education.
- 11. Majtabai R, Olfson M, Han B. National Trends in the Prevalence of Depression in Adolescents and Young Adults. *Pediatrics.* 2016;138(6).
- 12. Engelke MK, Swanson M, Guttu M, Warren, M, Lovern S. School nurses and chilren with diabetes: a descriptive study. *NC Medical Journal*. 2011;72(5):351-358.
- 13. Wang LY, Vernon-Smiley M, Gapinski MA, Desisto M, Maughan E, Sheetz A. Cost-benefit study of school nursing services. *JAMA Pediatrics*. 2014;168(7):642-648.
- 14. Guilford County Department of Health and Human Services. School Health Program Time Study. In. Guilford County, NC2016.
- 15. National Association of School Nurses. Five ways a school nurse benefits the school. https://higherlogicdownload.s3.amazonaws.com/NASN/6bdbf043.../FiveWays.pdf.
- 16. Services. NDoHaH. About Us: school nurses. In: Branch CaY, ed. *NC Department of Health and Human Services* Raleigh NC2016.
- 17. Taras H. School Nursing: beyond medication and proceedures. *JAMA Pediatrics.* 2014.
- 18. National Association of School Nurses. School nurse workload: staffing for safe care (Position Statement). NASN School Nurse 2017;30(5):290-293.
- 19. North Carolina Child Fatality Task Force. Annual Report of the North Carolina Child Fatality Task Force to the Governor and the General Assembly January 2017. In. North Carolina.
- 20. Bohnenkamp J, Stephan S, N. B. Supporting student mental health: the role of the school nurse in coordinated school mental health care. *Psychology in Schools.* 2015;52(7):714-727.
- 21. Project ONE. Fact Sheet 3: mental health and students in schools In:2017.
- 22. National Association of School Nurses. The Behavioral Health of Students (Position Statement).
- 23. Drug Overdose Death Data. In:2016.
- 24. Partnership for Drug-Free Kids. *The Partnership Attitude Tracking Study*. MetLife Foundation 2013.
- 25. King R, Embrey, M. Naloxone use in the school setting: the role of the school nurse. *NASN School Nurse*. 2017;31(2).
- 26. Harris EA. In School Nurse's Room: tylenol, bandages and an antidote to heroin. *New York Times.* March 17, 2017.
- 27. Project ONE. Fact Sheet 2. a day in the life of a school nurse. In. Guilford County NC USA2017.

- 28. Project ONE. Fact Sheet 4: school health is no summer vacation In:2017.
- 29. National Association of School Nurses. The Role of the 21st-Century School Nurse (Position Statement) NASN School Nurse.32(1):56-58.
- 30. Guilford County Department of Health and Human Services. Guilford County 2017-18 Acuity Business Model. In:2017.
- 31. Reynolds CA, Maughan ED. Telehealth in the school setting: an integrative review. *Journal of School Nursing* 2015;31(1):44-53.
- 32. National Association of School Nurses. Tele-health, the role of school nurses (Position Statement) NASN School Nurse. 2017;31(1):44-53.
- 33. NC Budget and Management. Certified County Population Estimates. In:2015.
- 34. Fact Sheet 1. wwwguilfordcountyprojectoneorg. 2016. http://guilfordcountyprojectone.org/resources/fact-sheet-1/. Accessed October.
- 35. Sauer T, Embrey M. <u>A Family Advocacy Toolkit</u> In. Raleigh NC School Nurse Associaton of North Carolina
- 36. Queram KE. Guilford County's budget to include additional school nurses. *Greensboro News & Record.* June 8, 2017.