



# PROGRAM EVALUATION DIVISION

## NORTH CAROLINA GENERAL ASSEMBLY

May 2017

Report No. 2017-04

# Meeting Current Standards for School Nurses Statewide May Cost Up to \$79 Million Annually

## Summary

**The Joint Legislative Program Evaluation Oversight Committee directed the Program Evaluation Division to analyze the need for school nurses and determine how these nurses are funded. Need is growing due to increased attendance by exceptional children and students with chronic conditions as well as laws and policies expanding the health care responsibilities of schools.** Only 46 of 115 Local Education Agencies (LEAs) currently meet the school nurse-to-student ratio of 1:750 recommended by the State Board of Education in 2004. Achieving either the 1:750 ratio or providing one nurse in every school (the current recommended standard of the National Association of School Nurses) would cost between \$45 million and \$79 million annually.

**The State created two initiatives to address the demand for school nurses—the Child and Family Support Teams (CFST) and the School Nurse Funding Initiative (SNFI).** The two programs have differing criteria and the distribution of nurses lacks periodic review. Although these programs increased the number of nurses, state funding has not increased to meet demand and there is a substantial funding gap between CFST and SNFI. In addition, the CFST program was established to provide services at specific schools with at-risk students. However, following the removal of state oversight of the program, CFST nurses now function as regular school nurses and not exclusively as part of an interagency team.

**Approximately 60% of all medical procedures conducted in schools are performed by school employees who are not nurses.** As a result, students are vulnerable to errors and gaps in emergency medical care, and funding intended for education is being used to subsidize health care. Furthermore, unlike other school-based services such as speech therapy, few LEAs file for Medicaid reimbursement for nursing services because, under the current Medicaid State Plan, a Registered Nurse must provide the care as ordered by a physician as part of an Individual Education Plan for the student.

**The General Assembly should direct the State Board of Education to formulate a new goal for school nurse staffing levels and a strategic plan to meet those levels.** The General Assembly should direct the Department of Health and Human Services (DHHS) and the Department of Public Instruction to combine CFST and SNFI into a single program and implement acuity models at state and local levels. The General Assembly should also direct DHHS to request a Medicaid State Plan amendment to authorize Medicaid reimbursement for school-based nursing services documented in an Individual Health Plan or a 504 Plan and to review school-based nursing service rates to ensure they are set appropriately.

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## Purpose and Scope

At its September 12, 2016 meeting, the Joint Legislative Program Evaluation Oversight Committee directed the Program Evaluation Division to study the provision of nursing services in public schools by

- detailing the public benefits of school nurses;
- measuring the number of public school nurses by Local Education Agency (LEA);
- identifying the roles and responsibilities of school nurses, including any limitations; and
- determining how public school nurses are funded.

This evaluation is intended to be an initial assessment of the total resources devoted to providing nursing services in schools and the level of service being provided to students.

This study addresses three research questions:

1. What are the current staffing levels of nurses in public schools?
2. What are the roles and responsibilities of public school nurses?
3. How do the State and LEAs fund school nurses?

The Program Evaluation Division collected data from several sources including

- interviews with and data from the Department of Public Instruction and the Department of Health and Human Services;
- a survey of North Carolina's 115 LEAs;
- site visits to six school nurse programs at LEAs; and
- an interview with and data from the National Association of School Nurses.

This study focuses on school nurses working in traditional public schools and does not consider charter schools or private schools, which are not required by North Carolina law to provide nursing services. This report does not include information about the approximately 90 school-based health centers operating at individual schools in 25 counties.

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## Background

School nursing is a specialized practice of nursing that advances the well-being, academic success, and lifelong achievement and health of students. The roots of school nursing are based in public health initiatives to reduce the spread of contagious diseases. In 1902, New York City employed the country's first school nurse as a pilot project to promote student attendance. Within one year, medical exclusions for ailments such as conjunctivitis, lice, skin infections, and other contagious disorders decreased by 99%. This dramatic increase in student attendance led to the establishment of school nursing programs in cities across the country. Rural schools were soon provided with nursing services from private, benevolent societies such as the Red Cross and the Visiting Nurses Association that traveled from village to village.

In North Carolina, the School Health Coordinating Services advisory committee initiated the State's first formal system of school health care in 1938 and expanded this program statewide by 1947. The General Assembly provided annual funds to the State Board of Education to allocate to local school health programs from 1949 to 1959, although this

funding only accounted for a small portion of the overall money spent on student health services and school nurses. From 1974 to 1999, the School Health Fund was used for prevention, diagnosis, and correction of chronic remediable physical defects as well as for purchasing supplies such as medicine. The fund was not used for school nurse salaries.

**Local governments were primarily responsible for funding school nurses until 2004, when the State created two programs to supplement local funding.** Traditionally, local governments provided funding for school nurses and special education budgets. However, as the need for school nurses increased, the General Assembly established two programs to fund school nurses. The School Nurse Funding Initiative (SNFI) began in 2004 to provide school nurses in LEAs with the greatest financial need and the least ability to pay. This program initially allocated 81 nurses to LEAs. Communities that received SNFI funding were required to maintain their level of effort and funding for those school nurse positions that already existed at the time of allocation.

The following year, the General Assembly approved legislation that created the Child and Family Support Team (CFST) initiative to support another 100 school nurse positions. The CFST initiative sought to provide school-based professionals (nurses and social workers) to screen, identify, and assist children who are potentially at risk of academic failure or out-of-home placement due to physical, social, legal, emotional, or developmental factors. In addition to these programs, LEAs also use funds from local hospitals, grants from philanthropic organizations, and state-appropriated instructional support positions to provide school nurses.

During the 2015–16 school year, there were 1,318 full-time equivalent school nurses serving 2,313 schools. School nurse programs may be operated by LEAs, local departments of health, or other health-related agencies, or staff may be split between organizations. Likewise, local school nurse funding may be directed to LEAs, public health departments, or other employing agencies. When a local department of health or other agency operates a school nurse program, the LEA enters into a contractual arrangement with the agency that stipulates responsibilities. During the 2015–16 school year, 86 LEAs operated their own school nurse programs and 16 were operated by a local health department. In two LEAs, not-for-profit hospitals help fund or operate the school nurse program in conjunction with the LEA and county. Two other school nurse programs were operated by a nonprofit and nine other programs used a combination of these entities to employ and pay for nurses.

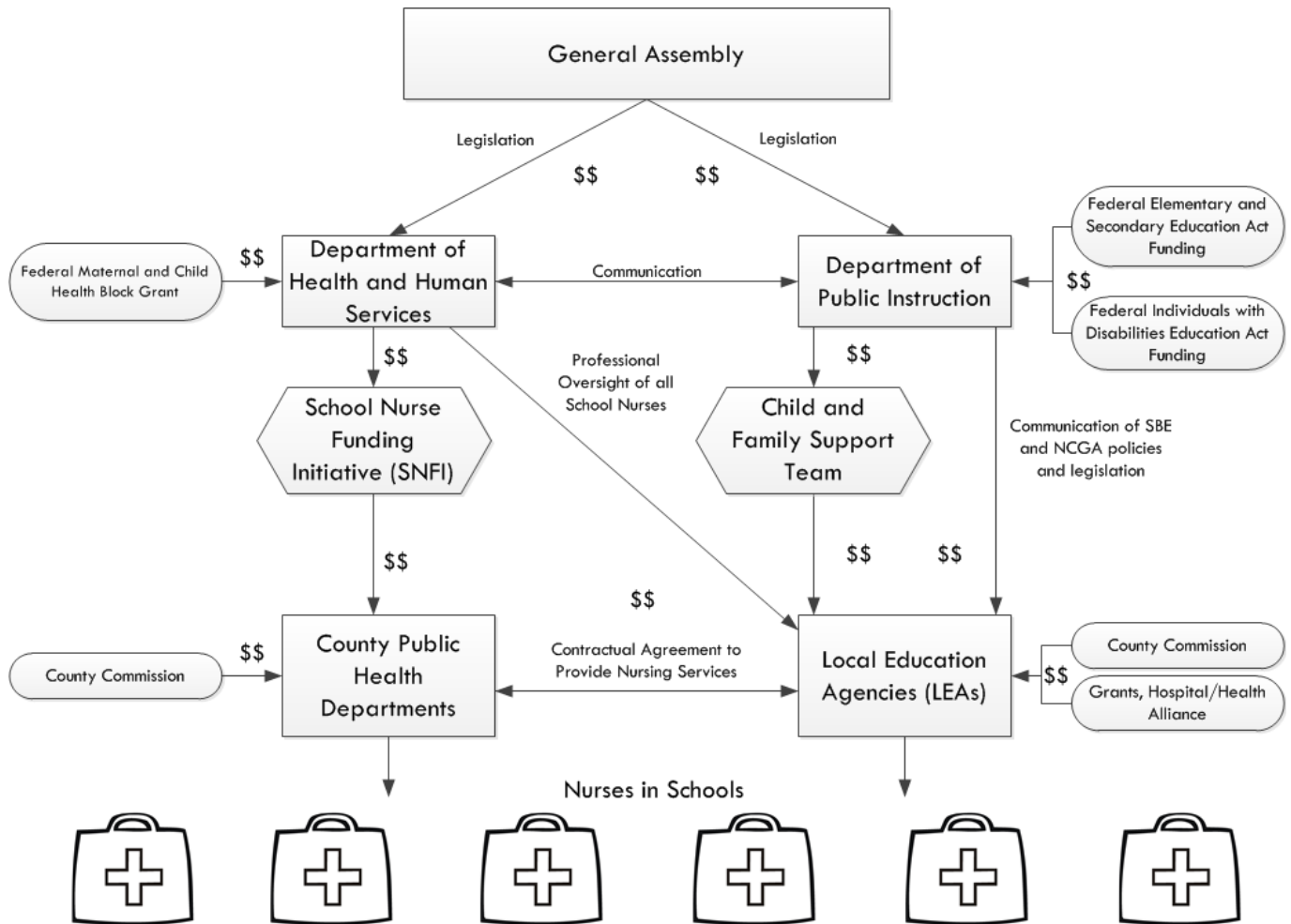
**The North Carolina Department of Health and Human Services (DHHS) and the Department of Public Instruction (DPI) each have responsibilities for school-based health programs.** At DHHS, the Division of Public Health's School Health Consultant Team, a part of the School Health Unit within the Children and Youth Branch, is responsible for

- consultation and technical assistance related to school health program needs and the needs of children with complex health issues,
- provision of continuing education, and
- program and sub-recipient monitoring.

Nursing practice regulations stipulate that nursing practice guidance must be provided by a licensed nurse. For this reason, the School Health Unit makes available the services of one state school health nurse consultant and six regional school health nurse consultants, all of whom are registered nurses. This work is provided by DHHS in a collaborative relationship with DPI. DHHS oversees the funding and creation and execution of work plans for SNFI nurses.

DPI disseminates funding for the CFST nurses and communicates with LEAs about changes to federal, state, and State Board of Education policies and procedures for school health programs. Exhibit 1 summarizes the organization structure and funding flows for school nurses.

### Exhibit 1: Funding and Oversight for Public School Nurses is Divided Among Two State Agencies



Note: This diagram does not depict the two school nurse programs that are operated by private hospitals.

Source: Program Evaluation Division based on information from the Department of Health and Human Services and Department of Public Instruction.

**Commonly, the school nurse is the only licensed health care provider in a school and manages all school health services and programs.** As a result, a school nurse is different from nurses practicing in other settings because they do not have other medical personnel upon which to rely. The increase in the number of disabled, medically fragile, and chronically ill children in schools has fundamentally changed the types and complexity of

tasks that school nurses perform on a daily basis. Although school nurses continue to perform basic functions such as first aid and checking vital signs, they also now help students manage chronic diseases and other complex health conditions.

**Most LEAs do not have a nurse present in every school every day of the week and therefore rely on unlicensed assistive personnel to provide student care in the absence of a nurse.** Unlicensed assistive personnel can be any staff member that agrees to receive training from a registered nurse and perform the tasks required. If no staff person agrees to perform a required medical duty for a student and a nurse is not present, the principal is responsible for performing the task, whether it is helping a student with insulin or changing a catheter.

In 2016, the Joint Legislative Program Evaluation Oversight Committee directed the Program Evaluation Division to study nursing services in traditional public schools. This report examines how school nurses are funded and attempts to determine whether there is a need for additional policy interventions. Summary statistics about school nurses are provided in Appendix A.

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## Findings

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**Finding 1. School nurse duties have increased in scope and complexity due to federal and state legislation, an increase in student health issues, and other cultural and contextual factors.**

The roles and responsibilities of school nurses have dramatically increased in recent years. At the same time, state financial support for nurses via the School Nurse Funding Initiative (SNFI) has stagnated and financial support for the Child and Family Support Teams (CFST) has declined.<sup>1</sup> Although school districts and nurses adjust to the amount of funding available to provide services, fewer resources force nurses to change both their approach and the extent to which they can carry out their roles in schools.

Routine school nurse duties span a range of responsibilities including

- monitoring public health issues in students such as communicable diseases and immunization records,
- administering episodic care or tending to emergency situations,
- managing chronic care and providing case management,
- providing general health education,
- preparing reports on student health,
- maintaining health supplies, and
- helping connect students with external care and specialists.

For example, during the 2015–16 school year, school nurses gave more than 23,000 presentations on student-health topics to students, parents, and school staff and provided 396,199 individual student health counseling sessions.

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<sup>1</sup> SNFI and CFST funding has not increased since school year 2009–10.

**Improved outcomes for children born prematurely and an increase in the number of children with chronic health conditions have increased the need for medical care in public schools.** Medical advances have increased the survival rates for children born preterm to greater than 90% for infants born after 27 weeks' gestation, ultimately resulting in an increase in the number of school-age children with moderate to severe disabilities and learning or behavioral problems. The Centers for Disease Control and Prevention (CDC) estimated in 2013 that the one in eight children born prematurely are more likely to have neurological deficits and cognitive delays, resulting in the need for health accommodations and/or academic accommodations. The number of children with chronic health problems such as asthma, diabetes, and food allergies continues to increase. Between 2002 and 2015, the number of chronic health conditions among children enrolled in North Carolina public schools increased by 75%, from 121,877 to 213,758. Some studies indicate that as many as 19% of all K-12 students are dealing with a chronic health condition.

**Beginning in the 1970s, changes in federal law increased the amount of nursing services that Local Education Agencies (LEAs) were legally obligated to provide.**

- The 1975 Education for all Handicapped Children Act, subsequently called the Individuals with Disabilities Education Improvement Act of 1991 (IDEA), mandated early intervention and educational opportunities for children with special needs from birth through 21 years of age. If related services, such as school nursing, are required for these children to participate in and benefit from educational opportunities, LEAs are required to provide these services. Whereas disabled children may have been institutionalized or educated at home in the past, today nearly 14% of students in North Carolina public schools are enrolled in Exceptional Children programs, meaning that they have some type of intellectual, physical, or emotional disability that interferes with their ability to learn.
- Section 504 of the Vocational Rehabilitation Act of 1973 upheld the rights of students to receive health and related services they need to attend school safely and successfully even if they do not qualify for special education under IDEA. To comply with Section 504, public schools must create an individual accommodation plan for students with chronic health conditions and other barriers to learning.<sup>2</sup>

Exhibit 2 provides a timeline highlighting legislation that has influenced nurse duties. Legislation has expanded the role of nurses and has specified what services schools must provide for specific ailments or conditions. As shown, schools, and more specifically school nurses, have been placed in the role of gatekeepers to enforce an increasing number of state health regulations.

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<sup>2</sup> A Section 504 Plan is a plan that describes the regular or special education and related aids and services a student needs and the appropriate setting in which those services should be provided for students with educational needs that do not require being served by an Individual Education Plan.

## Exhibit 2: Timeline of State and Federal Policy and Legislation Expanding the Role of School Nurses in North Carolina

- 1957 Immunization of NC Students.** Students entering NC public schools must receive specified immunizations and provide the appropriate certificates to school authorities (N.C. Gen. Stat. § 130A-152 and 130A-155).
- 1973 Education of Children with Disabilities.** All children with disabilities ages 3 through 21 must receive a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and that prepares them for further education, employment or independent living (N.C. Gen. Stat. § 115C-106.2).
- 1975 Education for All Handicapped Children Act.** Schools receiving federal funding must provide equal education and one free meal a day to children with mental and physical disabilities (Public Law 94 142).
- 1985 Health Assessments for Children in Public Schools.** All children entering kindergarten must receive a health assessment (N.C. Gen. Stat. § 130A-440).
- 1991 Individuals with Disabilities Education Act (IDEA).** States are required to educate students with disabilities. This act outlines the educational rights and regulations for students with disabilities ages 3 through 21 (Public Law 108-466).
- 2005 Early Childhood Vision Care.** All children entering kindergarten must receive vision screening (N.C. Gen. Stat. § 130A-440.1).
- Provision of Special Medical Needs of Students.** The scope of duty of teachers, teacher assistants, and any other public school employee or designee are expanded to include the provision of some medical care to students (N.C. Gen. Stat. § 115C-375.1).
- Students Possess and Self-Administer Asthma Medication.** Students with asthma or a student subject to anaphylactic reaction may possess and self-administer asthma medication on school property (N.C. Gen. Stat. § 115C-375.2).
- Individual Diabetes Care Plan.** Students with diabetes must receive an individual diabetes care plan. Necessary information and staff development of teachers and personnel must take place to support the care plan (N.C. Gen. Stat. § 115C-375.3).
- 2011 Gfeller-Waller Concussion Awareness Act.** All coaches, school nurses, athletic directors, first responders, volunteers, and parents of students who participate in interscholastic athletic activities must receive, on an annual basis, a concussion and head injury information sheet. If a student receives a concussion, they must follow specific steps before they can return to play. This act applies to middle and high school students (N.C. Gen. Stat. § 115C-12 (23)).
- 2014 EPI Pens in Schools.** Local boards of education must provide schools with a supply of emergency epinephrine auto-injectors on school property for use by trained school personnel to provide emergency medical aid to persons suffering from an anaphylactic reaction during the school day or at school-sponsored events (N.C. Gen. Stat. § 115C-375.2A).
- Health Assessment for Children in the Public Schools.** Each child presented for admission to public school for the first time must provide proof of a health assessment (S.L. 2015-222 amending N.C. Gen. Stat. § 130A-440).
- 2015 Return-to-Learn Concussion Policies for All Students.** Return-to-learn guidelines are applied for all students who experience a concussion regardless of where the concussion is experienced. This policy applies to students preschool to 12th grade and uses the same guidelines as the Gfeller-Waller Concussion Awareness Act (N.C. State Board Policy HRS-E-001).

Source: Program Evaluation Division based on North Carolina School Health Program Manual, 6<sup>th</sup> Edition.

**In the last 15 years, the North Carolina General Assembly has passed legislation related to chronic conditions such as asthma, diabetes, and severe allergies, further expanding the roles and responsibilities of school nurses.** Often this legislation directs local school boards to fund the required supplies or personnel time to carry out the specified tasks. The majority of the legislation passed regarding student health falls under the responsibility and oversight of the school nurses working in a given district.

An example of how student health legislation influences nurses and school districts can be observed in the Epi Pens in Schools law.<sup>3</sup> This statute requires local boards of education to provide schools with a supply of emergency epinephrine auto-injectors, more commonly known by the brand name of EpiPens. School nurses must secure the prescription, train school personnel on how to use the auto-injectors, formulate emergency plans regarding the use of the auto-injectors, and monitor their storage and use to ensure the district complies with state law and recommended procedures. The General Assembly did not provide state funding to implement this law.

Presently, a pharmaceutical company is providing school districts with auto-injectors for free. However, if this company discontinued the promotion, local boards of education would be responsible for supplying the EpiPens. The prescription must be renewed annually and the auto-injectors retail for approximately \$300 apiece. Schools often must provide more than the two auto-injectors that are required because dose sizes change as children grow and because statute directs school districts to have them available in different areas of the school. A school district that serves fewer than 10,000 students reported to Program Evaluation Division staff that it would have to budget \$47,000 annually to pay for EpiPens if the pharmaceutical company stops providing them for free.

During campus site visits, school nurses consistently told Program Evaluation Division staff that the legislative mandates and recommended policies and procedures are needed for the safety and improved health outcomes of students. The only concern expressed by nurses regarding these directives relates to the capacity of districts to staff enough nurses to comply with legislation and perform all of the tasks required of support staff and nurses.

Exhibit 3 provides a breakdown of typical school nurse roles and responsibilities based on how frequently nurses tend to perform different duties.

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<sup>3</sup> N.C. Gen. Stat. § 115C-375.2A.



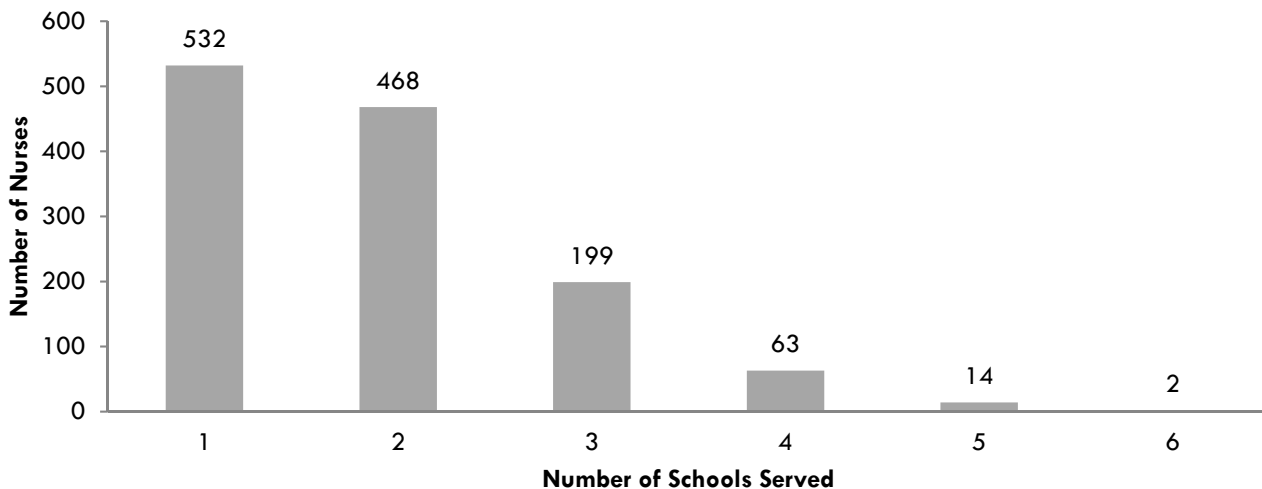
### Exhibit 3: Detail and Frequency of Legislated Nurse Responsibilities

Daily Tasks	2-4 Week Tasks	Annual Tasks
<ul style="list-style-type: none"> <li>Distribute medication</li> <li>Provide emergency care to students and teachers</li> <li>Respond to emergent student needs that are not emergencies (visits to the nurse)</li> <li>Provide care for students with special health needs</li> <li>Provide care for and monitor students' diabetes, asthma, allergies</li> <li>Oversee student 504 plans</li> <li>Oversee some student Individual Education Plans</li> <li>Monitor students who return to school after experiencing a concussion</li> </ul>	<ul style="list-style-type: none"> <li>Conduct medication distribution checks</li> <li>Oversee the delegation of daily tasks to licensed practical nurses (LPNs) and unlicensed assisted personnel (UAPs)</li> </ul>	<ul style="list-style-type: none"> <li>Immunization record verification</li> <li>Vision and hearing screening</li> <li>General training and education for faculty and staff</li> <li>Specific training for faculty and staff on certain health issues</li> <li>Delegation training</li> <li>Health assessment verification for all students entering NC schools</li> <li>Obtaining and filling the epinephrine auto-injector prescription</li> </ul>

Source: Program Evaluation Division based on interviews with school nurses and data collected by PED as well as data from the School Health Services Survey conducted by the Department of Health and Human Services.

These responsibilities can be particularly challenging if a school nurse serves more than one school. In some districts, school nurses serve three or more schools. Exhibit 4 depicts nurse assignments in terms of how many schools each nurse serves.

### Exhibit 4: Although Most School Nurses Serve One or Two Schools, 22% Serve Three or More Schools



Notes: Data is based on 1,285 school nurses and excludes vacant positions and nurses who work exclusively with Exceptional Children.

Source: Program Evaluation Division based on data from the Department of Health and Human Services.

**Additional cultural and contextual factors increase the workload of school nurses.** Legislation and the prevalence of chronic health issues are the largest contributors to the increase in school nurse workloads. However, the Program Evaluation Division heard during interviews with school nurses that additional factors exist in North Carolina communities that are often

contextually-specific but share a common outcome—more work for nurses. If a community lacks a public transportation system, parents struggle to retrieve sick students and to take children to medical providers outside of school. The lack of transportation often results in parents relying more heavily on a school nurse as one of the only medical providers their child will see. Communities dealing with multi-generational joblessness or poverty contend with student hygiene issues—lice, bed bugs, ringworm, lack of toilet training, lack of access to feminine hygiene products—that require nurses to help students with needs such as laundry and access to running water. In some instances, these issues prompt nurses to make home visits. During the 2015–16 school year, school nurses made approximately 8,300 home visits in North Carolina.

During interviews, nurses noted the increasing occurrence of mental health issues in students. Nurses often serve as a ‘safe’ person that children either seek out to directly share concerns or to whom children go when they have a mental health issue or problem at home but claim the ailment is physical. For example, if a student repeatedly comes to the nurse with a stomachache but shows no sign of physical ailment, the nurse will probe to understand what is happening at home or with the student and then connect the student with the appropriate resources. Nurses also help students and families navigate resources such as finding a doctor, signing up for insurance, or accessing mental health providers.

In summary, recent federal and state regulations have increased the amount of medical services that schools are required to provide. The growing number of students with chronic health conditions and more complex health needs has increased the scope of school nurse tasks. In addition to health concerns, school nurses may be tasked with identifying or evaluating resources for students with social or mental health issues. Whereas the majority of school nurses staff one or two schools, there are 278 school nurses in North Carolina assigned to three or more schools.

**Finding 2. North Carolina neither met the State Board of Education’s recommended nurse-to-student ratio by its target date of 2014 nor is it meeting the National Association of School Nurses’ current recommendation of one nurse per school.**

The Basic Education Act of 1985 stipulated there should be one state-funded school nurse for every 3,000 students or at least one school nurse per county. The State provided funding for these staff positions through the allotment system by which funds are distributed to schools by the Department of Public Instruction (DPI).

In 2003, the General Assembly directed the State Board of Education to determine if school districts were achieving the recommended level of school nurse staffing required by the Basic Education Act and if these standards were sufficient to meet the changing needs and demands for health services of the current and projected school populations. The State Board of Education report found

- state funds were supporting 321 full-time equivalent (FTE) nurse positions,
- four LEAs were operating without any school nurses, and

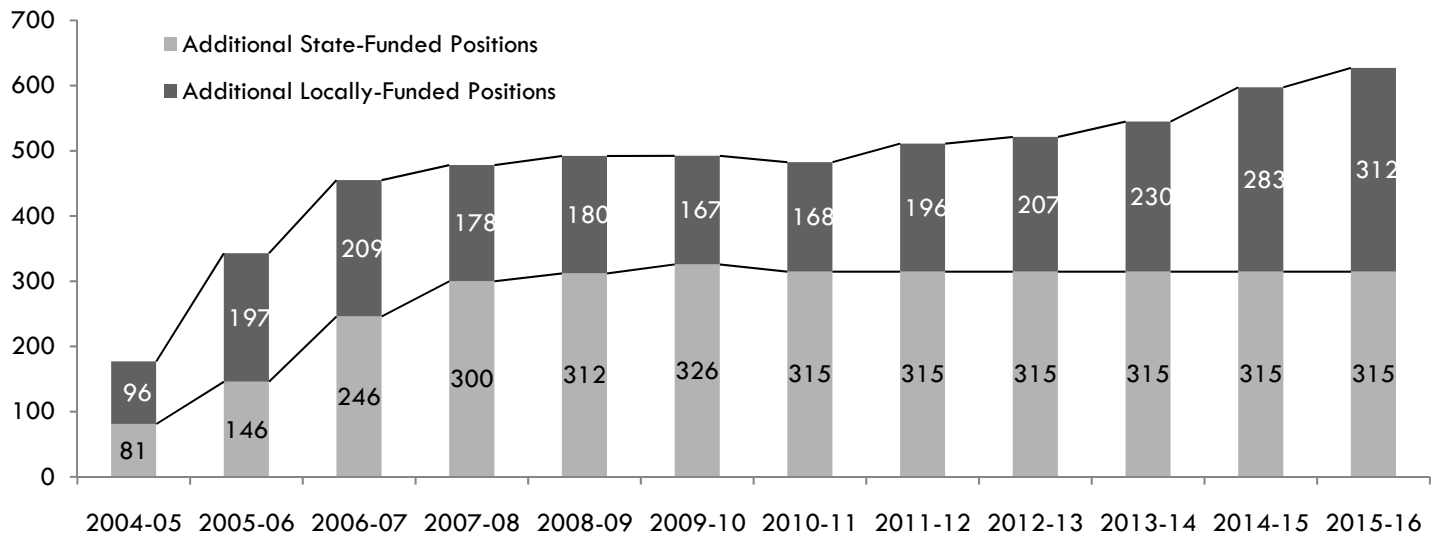
- the statewide ratio of school nurses to students was 1:1,918, with individual LEA nurse-to-student ratios ranging from 1:473 to 1:7,082.

**The General Assembly increased support for school nurses in 2004 at the recommendation of the State Board of Education.** The Board recommended that North Carolina seek to attain a ratio of one school nurse for every 750 students by 2014. This ratio aligned with the staffing standard recommended for the general student population at that time by the National Association of School Nurses and endorsed by the U.S. Department of Health and Human Services and the American Academy of Pediatrics. Shortly after the State Board of Education's report was issued, the General Assembly created the School Nurse Funding Initiative (SNFI) and the Child and Family Support Team (CFST) initiative to fund school nurse positions.

**Although the number of school nurses initially increased due to state funding, more recent growth has been a result of greater funding at the local level.** As shown in Exhibit 5, 66% of the growth in school nurses from school year 2004–05 to 2009–10 came from the creation and continued support of the SNFI and CFST programs. During this period, 326 state-supported school nurse positions were created in addition to the existing 321 positions already funded with state education allotments. In 2007, North Carolina's school nurse-to-student ratio ranked 36<sup>th</sup> in the nation. By 2010, in part due to the State's increased funding, North Carolina's ranking improved to 31<sup>st</sup>.

However, since school year 2009–10, increases in local funding have spurred all of the growth in school nurse positions. Most notably, the Charlotte-Mecklenburg school system announced in 2014 that it would attempt to have a nurse in every school. Of the 145 positions created by local governments since 2010, Charlotte-Mecklenburg is responsible for at least 44 (30%). A grassroots campaign by concerned parents served as a catalyst in Mecklenburg County's decision to provide access to a nurse at every school.

## Exhibit 5: Between 2004–05 and 2009–10, Growth in School Nurse Staffing was Largely Driven by State-Funded Programs; Since 2009–10, All Staffing Growth Has Been Locally Funded



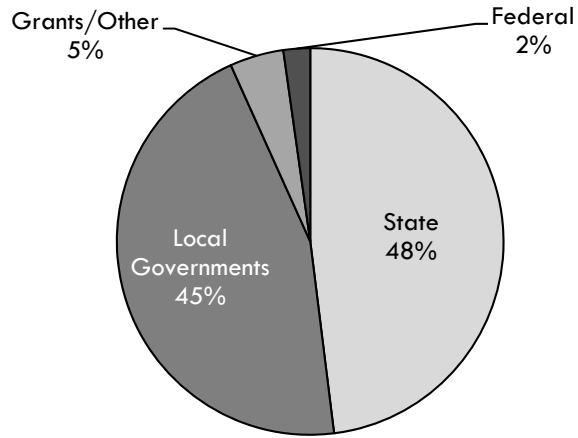
Note: This data is only for school nurses who work with student populations and does not include nurses serving in administrative positions.

Source: Program Evaluation Division based on data from the Department of Health and Human Services and the Department of Public Instruction.

A survey conducted by Program Evaluation Division staff confirmed that as of 2015–16, financial contributions for school nurses are split almost evenly between state and local government sources, with federal money and grants augmenting the cost (see Exhibit 6). In total, these entities spend \$91.6 million on school nurse salaries and benefits. However, financial contributions can vary widely between districts. About 11% of LEAs receive funding roughly equivalent to one FTE nurse from their local government including hospitals or care alliances. Twenty-one percent of local governments including hospital or care alliances support 5 or fewer FTE, and 14% support 10-20 FTE. A small portion of local governments (5%) support more than 20 FTE nurses for their LEAs with one county providing more than \$12 million to its LEA's school nurse program.

### Exhibit 6

The Source of School Nurse Funding was Split Almost Equally Between Local Governments and the State in School Year 2015–16

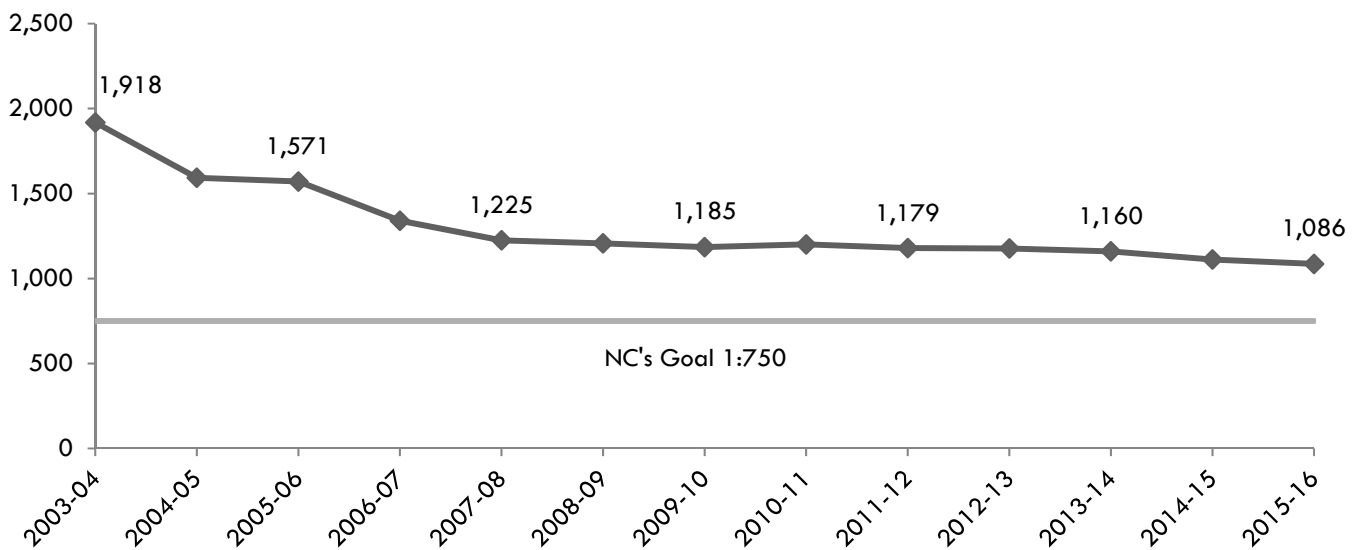


Sources of School Nurse Funding, 2015–16

Source: Program Evaluation Division based on a survey of LEA business officers, public health personnel, hospitals, and other relevant entities that fund school nurses.

Currently, North Carolina’s average school nurse-to-student ratio by LEA is 1:1,086 and ranges from 1:320 to 1:2,242. Every LEA or local health department has access to at least one school nurse. As shown in Exhibit 7, North Carolina has made progress towards reaching the ratio created by the National Association of School Nurses and later recommended by the State Board of Education in 2004. The average school nurse-to-student ratio fell by 43% from 2004 to 2016. Currently 40% of LEAs, or 46 school districts, have achieved the 1:750 staffing ratio. Appendices B, C, and D of this report summarize this information for each LEA in North Carolina.

### Exhibit 7: North Carolina’s Average School Nurse-to-Student Ratio Has Improved but Not Achieved Goal



Source: Program Evaluation Division based on data from the Department of Health and Human Services and the Department of Public Instruction.

**The recommended standard for school nurse staffing has evolved since North Carolina last considered this issue and is now one school nurse for each school.** The National Association of School Nurses' staffing ratio recommendation of one nurse for every 750 healthy students was created around the same time the Individuals with Disabilities Education Improvement Act was approved and did not account for the impact that mainstreaming exceptional children would have on the need for nursing services. The National Association of School Nurses stopped using the 1:750 ratio to compare state levels of school nurses in 2010 because there were a number of measurement issues that made appropriate comparisons difficult. In addition, this school nurse-to-student ratio does not provide any information about how frequently a nurse is present in a particular school.

In 2015, the staffing ratio was replaced with the recommendation that every student have access to a registered school nurse on a daily basis. Reasons for this change include the increase in chronic conditions among students, the increased presence of exceptional children in the general school population, and the growing reliance on school nurses by students with mental health concerns, impoverished students, and students who speak English as a second language. Some North Carolina schools already meet the new staffing requirement. The 2016 School Health Profiles Principals' Survey indicated that 26.9% of North Carolina's middle and high schools have a full-time registered nurse who provides health services to students. At least five LEAs have a school nurse in every school.

**North Carolina did not achieve the State Board of Education's 2004 goal to have a nurse-to-student ratio of 1:750 by 2014, and there is no current state plan to progressively increase the number of school nurses.** North Carolina did not achieve the 2014 goal for school nurse-to-student ratios set by the State Board of Education in 2004. No formal plan or policy has been created since that time to

- define the appropriate level of school nurse staffing;
- propose how funding for school nurses should be divided between local governments, the State, and other entities; or
- attempt to prioritize the creation of new school nurse positions.

The State Board of Education's current legislative agenda calls for the addition of 11 school nurses in 2017–19. This agenda provides no details on how these positions will be allocated and only indicates that one position will be part of the CFST program.

Achieving either a school-nurse-to-student ratio of 1:750 or a nurse in every school would entail substantial investment on the part of the State and local governments. If additional school nurses were hired with the level of compensation and benefits currently provided to CFST nurses, the cost to reach a school nurse-to-student ratio of 1:750 would be approximately

\$45 million. Providing enough nurses to have a nurse in every school would cost up to \$79 million each year.<sup>4</sup>

In summary, the State and local governments have put forth resources to increase the overall number of nurses, yet the State is not currently meeting the 1:750 nurse-to-student ratio set forth by the State Board of Education in 2004 to be met by 2014. The division of funding responsibilities for nurses between the State and local governments is shared almost equally at 48% and 45% respectively. However, more recent growth in the number of nurses is due to concerted efforts from some localities and not the State, as resources provided by the latter have stagnated. During this time, the National Association of School Nurses changed its recommended nurse-to-student ratio from 1:750 to one nurse per school. North Carolina is not meeting either of these guidelines and significant resources and effort from the State and local governments would be needed to close either of the gaps.

**Finding 3. The two state-funded school nurse programs are only accessible to schools and districts that meet certain criteria, and these criteria are not reevaluated at regular intervals.**

**School Nurse Funding Initiative (SNFI) and Child and Family Support Team (CFST) nurses were distributed to Local Education Agencies using different and very specific criteria.** When establishing SNFI in 2004, the General Assembly directed the Department of Health and Human Services (DHHS) to distribute positions to Local Education Agencies (LEAs) based on the following criteria:

- areas in greatest need of school nurses with the least ability to pay for these nurses;
- current nurse-to-student ratio;
- economic status of the community; and
- health needs of area children.

With this guidance, DHHS selected specific measures, measure weights, and data sources. The department distributed the school nurse positions based on the criteria and weights presented in Exhibit 8.

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<sup>4</sup> These estimates are based on 2015–16 school year data and assume that North Carolina would need 654 additional nurses to reach the 1:750 ratio and an additional 1,143 nurses to hire a nurse for every school. This is a point-in-time estimate that does not account for future student population or school growth. These estimates were created using the assumption that school nurse positions would be receive total compensation equal to that of a new instructional support position in the Department of Public Instruction, that nurses are hired in .5 FTE increments, and that current SNFI and CFST nurses would not be reallocated. In addition, the Department of Public Instruction reported that there were 2,452 public schools in school year 2015-16, including alternative education, Exceptional Children, cooperative and vocational schools which may be physically co-located with other schools. These co-located schools may overstate the number of total physical school locations in North Carolina. The actual cost to provide a nurse in every school will be lower depending on how many schools are co-located.

## Exhibit 8: Criteria for School Nurse Funding Initiative Nurse Distribution in 2004

Need Category	Criteria	Weight
<b>School Nurse-to-Student Ratio</b>	School nurse-to-student ratio	X2
<b>Economic Status of Community</b>	Percentage of students eligible for free/reduced meals	X3
	“Low wealth” counties eligible for education supplement	X1
<b>Health Needs of Children</b>	Infant mortality rate	X1
	Substantiated child abuse and neglect rate	X1
	Mortality rates ages 1-19	X1
	Percentage of students with chronic illness	X2
	Percentage of county population that is racial minority	X1
<b>Academic Need</b>	Student dropout rate grades 7-12	X1
	Percentage of schools meeting academic growth targets	X1

Source: Program Evaluation Division based on information from the Department of Health and Human Services.

**Redistribution of SNFI nurses only occurs when directed by the General Assembly and has not been done since 2011.** In 2011, the General Assembly directed DHHS to distribute SNFI funds to local health departments, as opposed to LEAs and hospitals. At that time, the General Assembly chose to include two additional criteria:

- percentage of children ages 0-18 in poverty and
- per capita income.

Inclusion of these new criteria to the ones listed in Exhibit 8 resulted in a redistribution of a number of school nurse positions. Due to the creation of the CFST program, some LEAs who had initially qualified for SNFI nurses lost them during this reevaluation process. Since 2011, the General Assembly has not requested that DHHS re-examine the placement of SNFI nurses, and therefore they have remained in the LEAs considered most needy according to the criteria specified above. DHHS maintains and updates the data supporting the SNFI criteria at regular intervals. Presently, six LEAs would still meet the State’s current goal of one nurse for every 750 students even if they lost one SNFI nurse position. The State could reassign allocation funding from these LEAs to LEAs that currently do not meet the desired ratio.

**The CFST program is no longer active and its nurses now function as any other school nurses.** In 2005, the General Assembly established the CFST initiative through session law and renewed the program each biennium until 2013. The program was part of the State’s response to the Leandro lawsuit. In the Leandro case, the courts determined that at-risk students entered or progressed in school from a disadvantaged standpoint in relation to other students. The Court defined at-risk students as having one or more of the following characteristics:

- being from a low-income family;
- participating in free or reduced-cost lunch programs;
- having parents with low-level education;
- showing limited proficiency in English;



- being a member of a racial or ethnic minority group; and/or
- living in a home headed by a single parent or guardian.

These factors may make at-risk children less likely to be academically successful.

The CFST program was targeted at areas where there were large numbers of at-risk children, though the program's definition of at-risk was somewhat different than the definition put forth by Leandro.<sup>5</sup> First, the North Carolina Child and Family Leadership Council invited 33 county LEAs to submit applications to participate in the program.<sup>6</sup> From this group, the Council selected 21 LEAs to participate in the pilot initiative. LEAs and specific school sites were selected based on the following criteria:

- identified needs of children and families in selected schools;
- demonstrated commitment of the school system and its health, mental health, and social service partners to work together to address the needs of children and families;
- geographic diversity statewide; and
- readiness to implement at the community and school level.

Unlike many general school nurses, CFST nurses were assigned to a single school to provide as much case management and coordination as possible for program participants. The CFST initiative began funding 100 school nurse positions in the 2006-07 school year. In 2010, the General Assembly reduced the CFST budget by 21%, and 21 school nurse positions were eliminated. Each of the school systems participating in the program received allocations that were reduced by a dollar amount equal to one social worker position and one 10-month nurse position. Funding for the CFST program's regional department of social services and local management entities staff was eliminated in 2011 and in 2014 the program manager position at DHHS was cut. CFST school nurse positions still exist. During the CFST initiative, many simultaneously functioned as both the regular school nurse and the CFST nurse for assigned schools. Most now function solely as the school nurse. Although CFST nurses are not required to submit the yearly work plans that are used to verify SNFI school nurse activities, CFST nurses still receive the engagement and oversight provided to all school nurses through the DHHS consultant team.

**The General Assembly has not adjusted the dollar amount per position for SNFI (\$50,000) since the program started 13 years ago.** An additional \$13,880 would be required for the \$50,000 SNFI allocation to hold the same purchasing power in 2017 that it held in 2004 due to inflation. Hiring agencies must therefore cover an ever-widening gap between the SNFI award amount and the actual cost to hire a school nurse.

All CFST funding was initially located at DHHS. In 2006, DHHS moved funding for local positions to DPI; program management and administrative staff remained at DHHS. In contrast to SNFI, school nurses funded from the CFST initiative receive position allotments according to the school allotment

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<sup>5</sup> The CFST program defined at-risk as students who were in danger of academic failure or out-of-family placement due to physical, social, legal, emotional, or developmental factors.

<sup>6</sup> The North Carolina Child and Family Leadership Council membership consisted of the Superintendent of the Department of Public Instruction, the Secretary of the Department of Health and Human Services, the Secretary of the Department of Juvenile Justice and Delinquency Prevention, the Chairman of the State Board of Education, and the Director of the Administrative Office of the Courts.

system DPI uses to distribute funds to school districts. A position covers the full cost of salary and benefits for a nurse. LEAs receive approximately \$69,500 in state support for each CFST school nurse.<sup>7</sup> Therefore, if a school district receives a CFST position, it is less likely to have to supplement it compared to a SNFI allocation.

The General Assembly has never reevaluated CFST assignments to determine if school nurses are still needed in the districts to which they were assigned in 2005. Presently, there are eight LEAs that could meet the nurse-to-student ratio of 1:750 even without one of the state CFST nurse positions they currently receive. The State could reallocate these eight positions to other LEAs with poorer school nurse-to-student ratios.

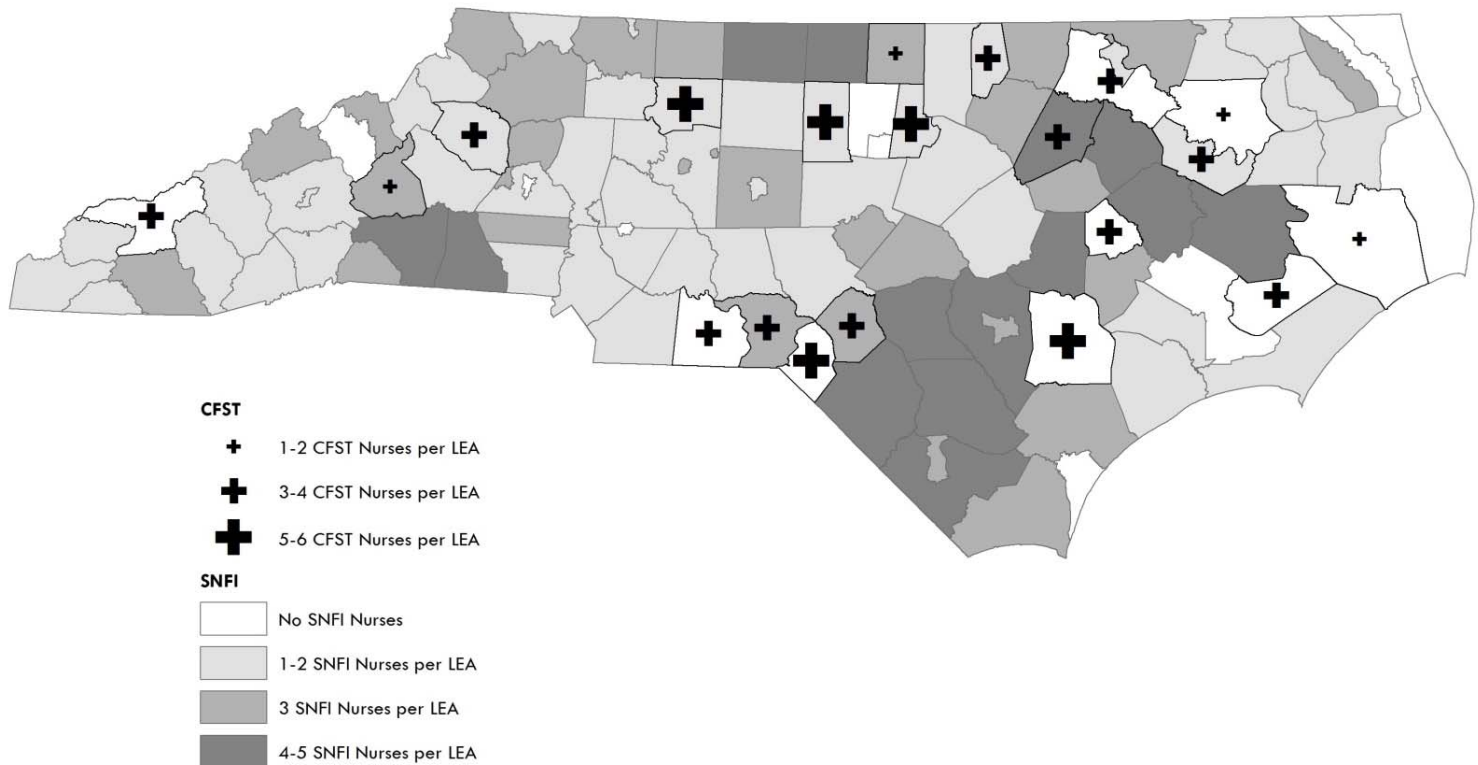
**All LEAs are required to have a school nurse, but 10 LEAs do not receive state-financed support for their nursing programs through either CFST or SNFI allocations.** Exhibit 10 presents the current distribution of SNFI and CFST school nurses across the state. Although all LEAs need school nursing staff, not all LEAs are given state-funded support for school nurses, and the distribution of nurses varies greatly among LEAs that do receive funding. Some LEAs have one state-funded position, whereas others have up to eight. As shown in Exhibit 9, there are 10 LEAs that do not receive state support for their school nurse program from either SNFI or CFST.<sup>8</sup>

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<sup>7</sup> This estimate is based on the 2016–17 instructional support staff average salary and includes benefits such as health insurance, social security contributions, and retirement system contributions.

<sup>8</sup> These LEAs are Camden County, Chapel Hill-Carrboro City, Craven County, Currituck County, Dare County, Kannapolis City, New Hanover County, Newton-Conover City, Orange County, and Yancey County. New Hanover County and Newton-Conover do not meet the nurse-to-student ratio of 1:750.

## Exhibit 9: Distribution of Child and Family Support Team (CFST) and School Nurse Funding Initiative (SNFI) Nurses, 2017



Source: Program Evaluation Division based on data from the Department of Health and Human Services and Department of Public Instruction.

**In summary, state programs assist the majority of LEAs in North Carolina with school nurse expenses.** These nurse positions or allocations were awarded to LEAs based on program-specific criteria. The apportionment of CFST nurse positions has not been evaluated since the program was created in 2005. The SNFI program's distribution of school nurses was last reviewed in 2011. There are 14 LEAs that could lose either a CFST or SNFI position and still meet the most recent state goal to have a nurse-to-student ratio of 1:750. These positions could be reallocated to LEAs that do not meet the 1:750 ratio.

### **Finding 4. The North Carolina Medicaid program pays for nursing services provided in schools, but most LEAs do not seek reimbursement for Medicaid-eligible students.**

In 2008, the Medicaid program added nursing services to the list of outpatient services and therapies provided by LEAs that were eligible to receive Medicaid reimbursement. Medicaid services provided in schools are reimbursed with federal funding processed through the Division of Medical Assistance (DMA). LEAs provide the required matching funds based on their local expenditures for nursing services.

The Medicaid program reimburses LEAs for nursing services typically provided by nurses and delegated school personnel if students receiving services are enrolled in the Medicaid program and have

- an Individual Education Plan (IEP) describing the nursing services and
- a plan of care prepared by a registered nurse based on a written order from a physician.<sup>9</sup>

Only six LEAs submitted Medicaid claims for nursing services during the 2015–16 Fiscal Year, and two of these LEAs have stopped submitting claims.<sup>10</sup> State and local officials stated that most LEAs do not submit Medicaid claims for nursing services because

- Medicaid reimbursement rates for nursing services are too low and
- nursing services are not included on IEPs.

**The current Medicaid rates for school nursing services have been frozen since 2009.** Under the nursing services umbrella, the Medicaid program sets rates for

- Registered Nurse (RN) services,
- Licensed Practical Nurse (LPN) services, and
- attendant care services provided by delegated school personnel.

Services are paid based on 15-minute increments of services provided. The rates for services provided by RNs and LPNs are based on federal Bureau of Labor Statistics data. The attendant care rate matches the rate for personal care services. As shown in Exhibit 10, North Carolina Medicaid rates for nursing services are lower than the rates paid by surrounding states.

## Exhibit 10

South Carolina and Virginia Medicaid Programs Pay Higher Rates for School Nursing Services

State	Medicaid Rates per 15 Minute Unit of Service		
	Registered Nurse	Licensed Practical Nurse	Delegated Personnel
North Carolina	\$ 5.98	\$ 3.48	\$ 2.74
South Carolina	\$ 8.08	\$ 6.06	N/A
Virginia	\$ 9.00	N/A	N/A

Notes: South Carolina's Medicaid program does not pay for nursing services provided by delegated school personnel. Virginia's Medicaid program does not pay for nursing services provided by licensed practical nurses and delegated personnel.

Source: Program Evaluation Division based on information provided by the Division of Medical Assistance.

Both state and local officials stated low reimbursement rates discourage LEAs from submitting Medicaid claims for nursing services. They believe that in some cases the cost of submitting claims for nursing services exceeds the Medicaid reimbursement that can be received.

**When IEPs do not include school nursing services, LEAs cannot receive Medicaid reimbursement for these services.** Nursing services in schools

<sup>9</sup> An Individual Education Plan is a written statement for a child with a disability that is developed, reviewed, and revised in accordance with specific requirements for students with educational needs addressed through Exceptional Children's services.

<sup>10</sup> The following LEAs submitted Medicaid claims for nursing services during the 2015–16 Fiscal Year: Burke County Schools, Cumberland County Schools, Davie County Schools, Union County Schools, Warren County Schools, and Wayne County Schools. During site visits, Burke County Schools and Davie County Schools reported that they no longer submit Medicaid claims for nursing services.

are planned through the development of Individual Health Care Plans, Emergency Action Plans, and Individual Education Plans (IEPs).<sup>11</sup> Only services documented in an IEP can qualify for Medicaid reimbursement based on current clinical policies. State officials with the Exceptional Children's program, officials with the Department of Health and Human Services, and school nurses stated that IEPs for students with health care needs that affect their educational process frequently do not document their need for nursing services. Barriers to incorporating nursing services into IEPs include

- a history of poor communication between IEP teams and school nurses and
- a perception by Exceptional Children administrators that nursing services are medical and not related to education.

A 2014 survey of school nurses in North Carolina found only 3% of those surveyed identified themselves as being a regular IEP team member that attends all IEP meetings. If school nurses do not participate in IEP team meetings, the need for nursing services cannot be documented. School nurse consultants continue to provide training and consultation in the use and role of school nurses in the IEP process for local school nurses, school administrators, and Exceptional Children regional consultants and directors.

**Historically, federal regulations restricted Medicaid reimbursement for services in school settings under the "Free Care Policy," but this policy was revised in late 2014.** The Free Care Policy only authorized Medicaid reimbursement for nursing services when documented in a student's IEP. Only students enrolled in Exceptional Children programs have IEPs. In December 2014, the Centers for Medicare and Medicaid Services amended its policy, expanding the school-based health services eligible for reimbursement. As required by the General Assembly, the Department of Health and Human Services (DHHS) examined the effect of the federal policy change on school-based health services.<sup>12</sup> In this study, the Division of Medical Assistance recommended expanding the current coverage of school-based nursing services to services documented on an Individual Health Plan or 504 plan.<sup>13</sup> To implement this recommendation, the Division of Medical Assistance noted the need to amend North Carolina's State Medicaid Plan and make other policy revisions and anticipated a minimum of 18 months to prepare and submit these changes to the Centers for Medicare and Medicaid Services. The Center for Medicare and Medicaid Services' approval of the State Plan would require an additional six months. If implemented, the Division of Medical Assistance's recommendation would increase Medicaid reimbursement for nursing services because Medicaid-eligible students requiring these services would be able to use an Individual Health Plan or 504 plan to receive coverage for these services even if the services are not documented in an IEP.

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<sup>11</sup> An Individual Health Plan is a component of a NC Board of Nursing-defined nursing care plan completed by a Registered Nurse that is written in terms that are understandable to school personnel and non-nursing caregivers. An Emergency Action Plan is a quick response plan for a student with a potentially life-threatening condition that details action steps for related symptoms.

<sup>12</sup> Session Law 2016-94, Section 12H.9.

<sup>13</sup> School-based nursing services are medically necessary services provided in the school setting that improve health outcomes and promote academic achievement and are reimbursable services in other healthcare settings, such as hospitals, clinics, and home care settings.

**In summary, most LEAs do not seek Medicaid reimbursement for nursing services provided to students who are Medicaid beneficiaries.** Barriers to seeking Medicaid reimbursement include rates that have been frozen since 2009 and IEPs failing to address school nursing services. Amendments to federal regulations expanded the school-based health services eligible for reimbursement, and the Division of Medical Assistance has recommended expanding school-based nursing services to services documented on an Individual Health Plan (IHP) or a 504 Plan, which would increase Medicaid reimbursement for nursing services.

**Finding 5. The State's education budget subsidizes health care costs when school personnel other than nurses perform health care services.**

Schools are legally obligated to provide health services to all students. Federal, state, and local laws, policies, and procedures direct school nurses and staff to provide general and specified care to students during school hours and at school-sanctioned events. Because most of North Carolina's LEAs have fewer than one nurse per school, other school staff members end up providing students with health coverage.

In 2005, the General Assembly clarified that it is within the scope of duty of teachers, including substitute teachers, teacher assistants, student teachers, and other public school employees, to administer medication prescribed by a doctor upon written request of parents and to provide emergency health care, first aid, or lifesaving techniques in which the employee has been trained in a program approved by the State Board of Education.<sup>14</sup> No employee is required to administer medication or attend lifesaving technique programs.

**Today, 60% of all medical tasks in schools are performed by people other than registered nurses.** In North Carolina, the Nurse Practice Act allows Registered Nurses (RNs) to delegate specific tasks to Licensed Practical Nurses (LPNs) or Unlicensed Assistive Personnel (UAP).<sup>15</sup> LPNs are nurses that pass a state licensure exam after completing a 12-month program typically offered through vocational high schools or community colleges. UAPs are any school staff member that receives training and oversight from an RN to provide specified medical tasks for students. For example, a school secretary who distributes daily medication to students is considered a UAP as is a school teacher who agrees to administer and monitor a student's insulin injections. UAPs also include nursing assistants. All three position types contribute to the provision of health services in North Carolina schools, but RNs have the greatest ability and training to provide health services, followed by LPNs and then UAPs.

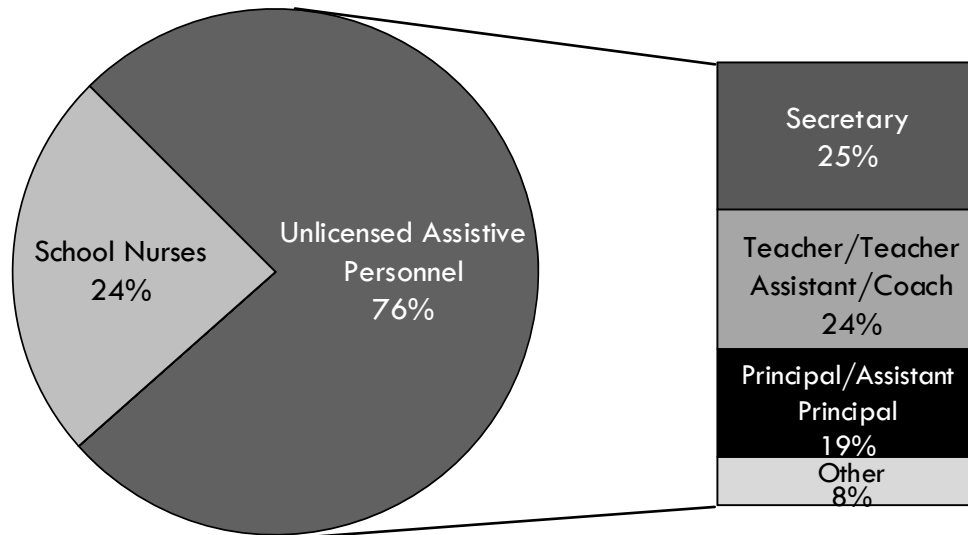
The presence of LPNs is fairly limited in North Carolina public schools. In 2015–16, 11 LPNs served as floating or supplemental nurse staff and 49 LPNs served in specific assignment capacities. Nursing regulations prohibit LPNs from functioning independently and require them to be supervised by RNs. As a result, school districts heavily rely on UAPs such as teachers, school administrators, and office staff to provide medical care to students.

<sup>14</sup> N.C. Gen. Stat. § 115.C-375.1.

<sup>15</sup> N.C. Gen. Stat. § 90-171.20.(7)(8)

As shown in Exhibit 11, 76% of the medication given to students in 2015–16 was administered by UAPs.

### Exhibit 11: Seventy-Six Percent of School Medication Administration was Performed by Unlicensed Assistive Personnel in School Year 2015–16



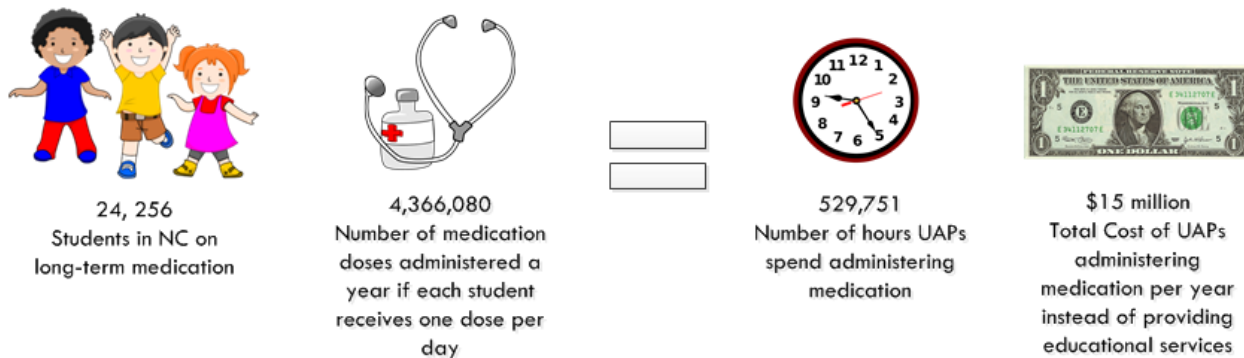
Source: Program Evaluation Division based on annual school nurse survey data collected by the Department of Health and Human Services.

**Reliance on UAPs to provide medical assistance to students means that education dollars meant to support education services are subsidizing health care in schools.** Using medication administration as just one example of a nursing service frequently provided by UAPs, the Program Evaluation Division estimates that in 2015–16 the State spent approximately \$15 million of education funds on medication administration performed by UAPs. This calculation is based on the salary and benefits for each category represented in Exhibit 11 and the breakdown of administration per staff type.

The amount of funds diverted to education personnel being paid by education dollars to distribute medication in 2015–16 equaled an aggregate of 300 full-time jobs across the state, or roughly 100 positions in each category previously mentioned. Stated differently, at the state level, the equivalent of 331 full-time education positions were diverted to cover the health needs of students instead of providing the specified educational duties of those equivalent positions in one school year. As an LEA representative interviewed by the Program Evaluation Division stated, “9 times out of 10, [student] health care is provided in the classroom.”

These estimates, depicted in Exhibit 12, are exclusive to long-term medication administration and therefore only account for a small portion of the provision of health care that UAPs provide to students. The estimate also assumes each student only receives one dose of medication per day when often students receive multiple doses of a pill or insulin or inhaler. Therefore, the amount of education time and money spent on medication administration is likely much larger.

## Exhibit 12: Educational Cost of Medication Administration for UAPs in Time and Money in 2015-2016



Source: Program Evaluation Division based on annual school nurse survey data related to medication administration collected by the Department of Health and Human Services and Department of Public Instruction salary schedules for different education positions.

A peer-reviewed, experimental mixed-methods study published in 2011 assessed the value of school nurses in a school district with approximately 17,000 students.<sup>16</sup> In schools without a nurse on campus, teachers reported spending 26 minutes per day addressing student health issues. In addition, clerical staff and assistant principals reported spending more than 60 minutes per day on these concerns. After school nurses were placed on school campuses, schools reported time savings of about 13 hours per day across all education and administrative staff. A cost analysis conducted in the study revealed that providing schools with nurses saved an estimated \$133,000 per year in school staff time spent on student health services.

A separate, peer-reviewed study performed a cost-benefit analysis of school nurse services in Massachusetts. This analysis found that the nurse program present in schools prevented \$20 million in medical costs, \$28.1 million in parental productivity loss, and \$129.1 million in teacher productivity loss.

The data in North Carolina and the results of these two studies emphasize the extent to which education dollars are being diverted to support student health care. Additionally, these examples demonstrate how an RN or an LPN, in some instances, could alleviate the burdens placed on education staff to provide medical care. Beyond saving time and money, it is safer to have staff on a school campus that have medical training to serve in a medical capacity versus having people with education or administration training serving in a medical capacity. As one North Carolina nurse noted when talking about delegating to non-medical staff or UAPs,

“The level of care school districts are providing is not safe when a nurse is only in a school every few days. Nurses have to follow up on what has happened the last few days while addressing immediate needs and all of the mandated items. Districts are creating a huge liability in the system if you have one nurse for 4-6 schools... Nurses can’t ensure that the school system is doing everything legally and there is no way they can do case management or screenings.”

<sup>16</sup> The location of this study was not identified in the journal article.



**School districts may use acuity models to limit the subsidization of school nursing activities and to develop a better understanding of the extent to which education dollar subsidization is occurring.** An acuity model is a tool used in other nursing settings such as hospitals and nursing homes to allocate staff. School districts can use acuity models as an objective method of assessing factors within the district that influence the need for nurses. For example, an acuity model for school nurses may examine the number of students with identified health conditions at a given school, the number of students that require invasive medical procedures at a school, the number of students on free and reduced lunch at a school, and other relevant factors such as the geographic distance between schools. The model provides weights to these categories and nurses are subsequently assigned based on acuity, or need.

Based on site visits to school nursing programs, it appears that districts using or building acuity models are working towards or already use a case management approach to student care. The case management approach includes a strong emphasis on educating students on their conditions and improving self-care as well as measuring both students' progress in dealing with their conditions and the conditions themselves. The nursing community champions the case management approach as the most effective use of nurse time and knowledge in addition to responding to emergent situations. Therefore, it may be helpful for districts not currently using acuity models to receive guidance or information from DHHS's School Health Consultants on how they could build one specific to their contextual needs.

In summary, education funds currently subsidize the cost of providing students with health care in schools. This situation occurs due to the use of UAPs that hold education or administration positions but due to delegation and a shortage of nurses or LPNs have to provide students with health care. Around 60% of all health services provided in North Carolina schools are performed by UAPs. The study cited above estimated that teachers in schools without nurses spend an average of 26 minutes per day administering care to meet student health needs while administrators spend around 60 minutes per day providing student health care. This level of delegated care diverts education funds from their intended purpose and is potentially dangerous for students. Using acuity models in districts enables them to distribute nurses in a way that meets student needs in the most efficient manner. However, increasing the number of nurses or medical personnel positions in districts while using an acuity model could further alleviate the burden placed on educational and administrative staff to provide health services to students.

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## Recommendations

**Recommendation 1. The General Assembly should direct the State Board of Education to update the school nurse staffing standard that it considers necessary to meet student needs and develop an implementation plan for achieving the revised standard.**

As discussed in Finding 2, the State Board of Education (SBE) recommended in 2004 that North Carolina seek to attain a standard of one school nurse for every 750 students by 2014. The State has never met this standard, and the recommended national standard for the provision of school nursing services has since changed to one school nurse for every school.

To ensure that school nursing services meet the needs of students, the General Assembly should direct SBE, in consultation with Department of Health and Human Services and Department of Public Instruction staff, to update its recommended school nurse staffing standard. In developing this revised standard, the SBE should consider how

- school nursing services are currently meeting the changing needs and demands for health services of the current and projected school populations;
- reliance on Unlicensed Assistive Personnel to provide medical assistance to students results in education dollars subsidizing health services provided in schools; and
- the recommended national standard for school nurse staffing has changed since 2004.

SBE also should be directed to develop an implementation plan for achieving the revised staffing standard to include

- a recommended school nurse staffing standard that it considers necessary for meeting the health services needs of students;
- a model for the distribution of state funding for school nurses including factors to determine state priorities for funding and the consideration of base level funding, in lieu of awards based on specific criteria;
- an estimate of the amount of state funding needed to assist LEAs with implementation of the recommended standard; and
- a timeline for all LEAs to achieve the recommended standard.

The revised school nurse staffing standard and implementation plan should be submitted to the Joint Legislative Education Oversight Committee and the Joint Legislative Health and Human Services Oversight Committee by January 15, 2019.

**Recommendation 2. The General Assembly should direct the Departments of Health and Human Services and Public Instruction to prepare a plan to consolidate the two state school nurse funding programs into a single entity and to implement the use of acuity models at the state and local levels.**

As discussed in Finding 3, North Carolina has two state-funded school nurse programs that are only accessible to schools and districts that meet certain criteria. The School Nurse Funding Initiative (SNFI) and the Child and Family Support Team (CFST) programs use different award criteria and funding strategies, obscuring the State's strategic intent for supporting school

nursing services. In Finding 5, this report identifies an acuity model as an objective method for assessing factors that influence the need for school nurses.

To increase the effectiveness of current state resources that provide funding for school nurses, the General Assembly should direct the Departments of Health and Human Services (DHHS) and Public Instruction (DPI) to prepare a plan to consolidate the SNFI and CFST programs into a single program that will provide funding for school nurses based on an acuity model. This implementation plan would be approved by the General Assembly prior to implementation. To implement a consolidated school nurse funding program, DHHS and DPI should

- develop a memorandum of understanding describing how DHHS and DPI will communicate and interact with each other to oversee and operate the school nurse program;
- determine which department will operate the program and document any potential fiscal or staffing impacts as a result of program consolidation;
- propose the factors, weights, and data sources to be used in a statewide acuity model to allocate nurses to LEAs;
- determine the time interval for reevaluating the allocation of school nurse funding based on the acuity model;
- promote the development of an acuity model by each LEA in order to use state and local school nurse funding efficiently; and
- complete the initial reallocation of consolidated school nurse funding based on the acuity model to the LEAs with the greatest needs starting with Fiscal Year 2019–20.

DHHS and DPI should report on the implementation plan for the consolidated school nurse funding program to the Joint Health and Human Services Oversight Committee and the Joint Legislative Education Oversight Committee by May 1, 2019.

**Recommendation 3. The General Assembly should direct the Department of Health and Human Services to examine the Medicaid rates for school nursing services and determine whether the rates should be increased to encourage Local Education Agencies to submit Medicaid claims for these services.**

As discussed in Finding 4, the Medicaid rates for school nursing services have been frozen since 2009, and North Carolina's Medicaid rates for nursing services are lower than the rates paid by surrounding states. The General Assembly should direct the Department of Health and Human Services (DHHS) to examine these rates and consider whether increasing Medicaid rates for school nursing services would encourage Local Education Agencies to submit Medicaid reimbursement claims for these services provided to students who are Medicaid recipients. DHHS's examination of the Medicaid rates for school nursing services should include consultation with the School Health Consultant Team, officials from the Department of Public Instruction, and representatives from LEAs. Implementation of this recommendation would not affect state expenditures for the Medicaid

program because Medicaid services provided in schools are reimbursed by LEAs using local funds to match the federal Medicaid reimbursement.

DHHS should report on school nurse Medicaid rates to the Joint Legislative Oversight Committee on Medicaid and NC Health Choice by January 31, 2018.

**Recommendation 4. The General Assembly should direct the Department of Health and Human Services to request a Medicaid State Plan amendment to authorize Medicaid reimbursement for school-based nursing services documented in an Individual Health Plan or a 504 Plan.**

As discussed in Finding 4, Medicaid reimbursement for school-based nursing services is currently limited to services documented in a student's Individual Education Plan. Recent changes in federal policy would allow the North Carolina Medicaid program to expand Medicaid reimbursement for school-based nursing services to students with Individual Health Plans or 504 Plans, and the Department of Health and Human Services has recommended making this change. Implementation of this recommendation would not affect state expenditures for the Medicaid program because Medicaid services provided in schools are reimbursed by Local Education Agencies using local funds to match the federal Medicaid reimbursement.

DHHS should report on the status of the Medicaid State Plan amendment to the Joint Legislative Oversight Committee on Medicaid and NC Health Choice by January 31, 2018.

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## Appendices

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Appendix A: Summary Statistics about School Nurses

Appendix B: Number of School Nurses and Estimates of Resource Gaps Sorted by Local Education Agency

Appendix C: Local Education Agencies Sorted by Attainment of 1:750 School Nurse-to-Student Ratio

Appendix D: Local Education Agencies Sorted by Attainment of One Nurse per School

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## Agency Response

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A draft of this report was submitted to the North Carolina Department of Health and Human Services and the North Carolina Department of Public Instruction to review. Their responses are provided following the appendices.

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## Program Evaluation Division Contact and Acknowledgments

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For more information on this report, please contact the lead evaluator, Sara Nienow, at [sara.nienow@ncleg.net](mailto:sara.nienow@ncleg.net).

Staff members who made key contributions to this report include Emily McCarthy and Carol Shaw. John W. Turcotte is the director of the Program Evaluation Division.

## Appendix A: Summary Statistics about School Nurses

### School Nurses Statewide

Number of schools	2,313
Number of FTE school nurses	1,318
Percentage of school nurses serving one school	41.6%
Percentage of school nurses serving two schools	36.6%
Percentage of school nurses serving three or more schools	21.5%

### School Nurse Ratios

Nurse to student ratio recommended by State Board of Education in 2004	1:750
Current NC average ratio	1:1,086
Lowest Local Education Agency (LEA) ratio (Pamlico)	1:320
Highest LEA ratio (Cumberland)	1:2,242
Percentage of LEAs currently meeting ratio	40% (46 of 115)
Nurse to student ratio recommended by National Association of School Nurses in 2015	1 per school
Percentage of LEAs with a nurse in every school	4% (5 of 115)
Percentage of NC middle and high schools with full-time nurse access	26.9%

### Funding

Number of LEAs that do not receive state support	10
Number of LEAs that could lose a state-funded position and still meet 1:750 ratio	14
Number of additional nurses needed to reach 1:750 ratio statewide	654
Cost to reach 1:750 ratio statewide	\$45 million
Number of additional nurses needed to have a nurse in every school	1,143
Cost to achieve having a nurse in every school	Up to \$79 million

### Medical Services Provided by School Staff

Percentage of medical tasks performed by unlicensed assisted personnel	60%
Percentage of medication administered by unlicensed assisted personnel	76%
Education funds spent on medication administered by unlicensed assisted personnel	\$15 million

Notes: Funding estimates were created using the assumptions that school nurse positions would receive total compensation equal to that of a new instructional support position in the Department of Public Instruction, that nurses are hired in .5 FTE increments, and that current SNFI and CFST nurses would not be reallocated. The Department of Public Instruction reported there were 2,452 public schools in school year 2015–16, including alternative education, Exceptional Children, cooperative and vocational schools which may be physically co-located with other schools. These co-located schools may overstate the number of total physical school locations in North Carolina. The actual cost to provide a nurse in every school will be lower depending on how many schools are co-located.

Sources: All information provided by the North Carolina Department of Health and Human Services with the exception of school nurse-to-student ratio recommendations which were provided by the National Association of School Nurses and the North Carolina State Board of Education. The Funding section of this appendix was calculated by the Program Evaluation Division.

## Appendix B: Number of School Nurses and Estimates of Resource Gaps by Local Education Agency

LEA Name	Number of Schools 2015–16	Student Population 2015–16	Direct Care Nurse FTE 2015–16	Total Nurse FTE including Administrative Positions	State-Funded FTE	Students Per Nurse	Achieves 1:750 Ratio?	Achieves 1 Nurse Per School Ratio?	Number of Additional Nurses Needed to Achieve 1:750 Ratio	Number of Additional Nurses Needed to Achieve 1 Nurse in Every School
Alamance-Burlington	36	22,600	24.5	25.1	15.2	921	No	No	6.0	11.5
Alexander County	11	4,943	5.2	5.6	5.0	951	No	No	1.5	6.0
Alleghany County	4	1,376	2.0	2.0	1.8	688	Yes	No	-	2.0
Anson County	11	3,415	7.0	8.0	8.7	488	Yes	No	-	4.0
Ashe County	5	3,066	4.0	4.0	3.2	767	No	No	0.5	1.0
Asheboro City	8	4,648	6.0	6.0	4.7	775	No	No	0.5	2.0
Asheville City	8	4,396	4.0	5.0	0.6	1,099	No	No	2.0	4.0
Avery County	11	2,064	3.0	3.0	2.5	688	Yes	No	-	8.0
Beaufort County	14	6,836	6.0	6.0	5.0	1,139	No	No	3.5	8.0
Bertie County	8	2,280	3.9	3.9	3.0	580	Yes	No	-	4.5
Bladen County	13	4,630	6.7	7.1	6.5	694	Yes	No	-	6.5
Brunswick County	19	12,369	11.0	11.0	8.8	1,124	No	No	5.5	8.0
Buncombe County	44	24,305	21.6	22.6	3.2	1,126	No	No	11.0	22.5
Burke County	27	12,360	11.1	11.1	2.0	1,118	No	No	5.5	16.0
Cabarrus County	39	31,260	34.0	35.0	0.8	919	No	No	8.0	5.0
Caldwell County	26	11,964	11.0	12.0	5.7	1,088	No	No	5.0	15.0
Camden County	5	1,800	3.0	3.0	1.0	600	Yes	No	-	2.0
Carteret County	17	8,246	8.0	8.0	5.6	1,031	No	No	3.0	9.0
Caswell County	6	2,689	4.0	4.0	4.0	672	Yes	No	-	2.0
Catawba County	28	16,333	14.9	15.5	0.8	1,094	No	No	7.0	13.5
Chapel Hill-Carrboro	20	11,965	18.0	18.0	3.0	665	Yes	No	-	2.0
Charlotte-Mecklenburg	170	145,444	163.7	180.7	1.0	889	No	No	30.5	6.5
Chatham County	18	8,436	7.0	7.0	6.0	1,205	No	No	4.5	11.0
Cherokee County	14	3,329	4.1	4.1	1.7	820	No	No	0.5	10.0
Clay County	3	1,302	2.0	2.0	2.0	651	Yes	No	-	1.0
Cleveland County	29	14,906	14.0	15.0	2.7	1,065	No	No	6.0	15.0

LEA Name	Number of Schools 2015-16	Student Population 2015-16	Direct Care Nurse FTE 2015-16	Total Nurse FTE including Administrative Positions	State-Funded FTE	Students Per Nurse	Achieves 1:750 Ratio?	Achieves 1 Nurse Per School Ratio?	Number of Additional Nurses Needed to Achieve 1:750 Ratio	Number of Additional Nurses Needed to Achieve 1 Nurse in Every School
Clinton City	5	3,047	4.0	4.0	3.5	762	No	No	0.5	1.0
Columbus County	18	5,883	8.0	8.0	8.0	735	Yes	No	-	10.0
Craven County	25	14,004	21.0	21.6	21.1	666	Yes	No	-	4.0
Cumberland County	87	49,918	22.3	23.9	9.3	2,242	No	No	44.5	65.0
Currituck County	10	3,966	8.2	8.2	1.2	484	Yes	No	-	2.0
Dare County	11	4,944	10.0	10.0	0.0	494	Yes	No	-	1.0
Davidson County	35	19,166	8.6	8.9	4.4	2,226	No	No	17.0	26.5
Davie County	12	6,265	6.7	7.1	6.5	939	No	No	2.0	5.5
Duplin County	16	9,690	14.0	14.0	12.1	692	Yes	No		2.0
Durham Public	54	33,144	26.5	28.1	8.0	1,249	No	No	18.0	27.5
Edenton/Chowan	4	2,049	4.0	4.0	4.0	512	Yes	Yes	-	-
Edgecombe County	14	5,953	7.7	8.2	8.0	776	No	No	0.5	6.5
Elkin City	3	1,193	1.5	1.5	1.2	780	No	No	0.5	1.5
Forsyth County	80	53,947	39.5	40.5	6.9	1,365	No	No	32.5	40.5
Franklin County	16	8,405	7.7	8.1	8.0	1,096	No	No	3.5	8.5
Gaston County	54	31,285	28.3	29.3	25.7	1,104	No	No	13.5	26.0
Gates County	5	1,612	3.0	3.0	2.5	537	Yes	No		2.0
Graham County	3	1,152	2.5	2.5	1.6	455	Yes	No		0.5
Granville County	19	7,868	5.0	5.0	4.0	1,574	No	No	5.5	14.0
Greene County	6	3,141	4.2	5.0	4.0	748	Yes	No		2.0
Guilford County	126	71,429	36.7	39.7	1.5	1,948	No	No	59.0	90.0
Halifax County	10	2,732	5.0	5.0	4.0	546	Yes	No	-	5.0
Harnett County	28	20,252	9.3	10.1	10.7	2,185	No	No	18.0	19.0
Haywood County	15	7,134	6.9	6.9	4.0	1,034	No	No	3.0	8.5
Henderson County	23	13,506	12.0	12.0	1.5	1,126	No	No	6.0	11.0
Hertford County	7	2,884	5.0	5.0	4.8	577	Yes	No	-	2.0
Hickory City	9	4,258	5.0	5.5	1.7	852	No	No	1.0	4.0
Hoke County	14	8,300	9.0	9.0	8.5	922	No	No	2.5	5.0
Hyde County	3	584	1.0	1.0	1.0	584	Yes	No	-	2.0

LEA Name	Number of Schools 2015-16	Student Population 2015-16	Direct Care Nurse FTE 2015-16	Total Nurse FTE including Administrative Positions	State-Funded FTE	Students Per Nurse	Achieves 1:750 Ratio?	Achieves 1 Nurse Per School Ratio?	Number of Additional Nurses Needed to Achieve 1:750 Ratio	Number of Additional Nurses Needed to Achieve 1 Nurse in Every School
Iredell-Statesville	36	20,643	14.8	15.8	12.3	1,395	No	No	13.0	21.5
Jackson County	9	3,685	4.5	5.2	3.0	813	No	No	0.5	4.5
Johnston County	46	34,452	18.8	19.1	17.2	1,833	No	No	27.5	27.5
Jones County	6	1,077	2.0	2.0	1.5	539	Yes	No	-	4.0
Kannapolis City	8	5,310	8.0	10.0	0.0	664	Yes	Yes	-	-
Lee County	16	9,981	9.8	10.1	7.2	1,018	No	No	3.5	6.5
Lenoir County	17	8,846	7.0	7.0	6.0	1,264	No	No	5.0	10.0
Lexington City	7	3,008	4.0	4.3	2.5	752	No	No	-	3.0
Lincoln County	24	11,410	8.0	8.0	8.0	1,426	No	No	7.5	16.0
Macon County	11	4,341	4.8	5.7	3.0	904	No	No	1.0	6.5
Madison County	6	2,374	4.0	4.0	3.0	594	Yes	No	-	2.0
Martin County	10	3,218	6.0	6.0	5.9	536	Yes	No	-	4.0
McDowell County	13	6,183	8.5	8.5	7.8	725	Yes	No	-	4.5
Mitchell County	7	1,868	3.0	3.0	2.8	623	Yes	No	-	4.0
Montgomery County	11	3,950	5.0	5.0	4.7	790	No	No	0.5	6.0
Moore County	23	12,769	9.0	10.0	7.3	1,419	No	No	8.0	14.0
Mooreville City	8	6,020	6.0	6.0	5.8	1,003	No	No	2.0	2.0
Mount Airy City	4	1,594	2.0	2.0	1.7	797	No	No	0.5	2.0
Nash-Rocky Mount	28	15,415	20.7	20.7	17.6	746	Yes	No	-	7.5
New Hanover County	42	25,901	34.1	36.1	0.0	759	No	No	0.5	8.0
Newton Conover City	7	3,088	3.7	4.2	0.6	844	No	No	0.5	3.5
Northampton County	7	1,842	3.9	4.2	4.0	469	Yes	No	-	3.5
Onslow County	35	25,702	21.0	21.0	18.0	1,224	No	No	13.5	14.0
Orange County	13	7,501	11.3	12.1	8.2	661	Yes	No	-	2.0
Pamlico County	4	1,278	4.0	4.0	3.0	320	Yes	Yes	-	-
Pasquotank County	12	5,739	7.0	7.0	4.9	820	No	No	1.0	5.0
Pender County	16	8,923	9.5	10.2	7.1	936	No	No	2.5	6.5
Perquimans County	4	1,684	3.0	3.0	3.0	561	Yes	No	-	1.0
Person County	11	4,570	7.0	7.0	7.0	653	Yes	No	-	4.0



LEA Name	Number of Schools 2015-16	Student Population 2015-16	Direct Care Nurse FTE 2015-16	Total Nurse FTE including Administrative Positions	State-Funded FTE	Students Per Nurse	Achieves 1:750 Ratio?	Achieves 1 Nurse Per School Ratio?	Number of Additional Nurses Needed to Achieve 1:750 Ratio	Number of Additional Nurses Needed to Achieve 1 Nurse in Every School
Pitt County	37	23,239	20.0	21.0	5.0	1,162	No	No	11.0	17.0
Polk County	7	2,169	4.0	5.0	3.9	542	Yes	No		3.0
Randolph County	31	17,460	11.0	11.0	8.0	1,587	No	No	12.5	20.0
Richmond County	16	7,343	10.3	10.3	10.3	715	Yes	No	-	6.0
Roanoke Rapids City	4	2,864	4.0	4.0	3.3	716	Yes	Yes	-	-
Robeson County	42	23,240	24.0	25.0	19.0	968	No	No	7.0	18.0
Rockingham County	25	12,591	9.0	9.0	8.6	1,399	No	No	8.0	16.0
Rowan-Salisbury	35	19,525	12.0	12.0	8.3	1,627	No	No	14.0	23.0
Rutherford County	18	8,169	8.0	8.0	6.0	1,021	No	No	3.0	10.0
Sampson County	18	8,371	8.8	9.1	7.3	951	No	No	2.5	9.5
Scotland County	12	5,818	10.0	10.0	9.7	582	Yes	No	-	2.0
Stanly County	20	8,514	7.0	7.0	6.1	1,216	No	No	4.5	13.0
Stokes County	19	6,135	5.0	5.0	5.0	1,227	No	No	3.5	14.0
Surry County	19	8,118	10.0	10.0	9.4	812	No	No	1.0	9.0
Swain County	5	1,896	3.8	3.8	2.9	500	Yes	No	-	1.5
Thomasville City	4	2,375	4.0	4.3	4.0	594	Yes	Yes	-	-
Transylvania County	9	3,440	3.0	3.0	1.0	1,147	No	No	2.0	6.0
Tyrrell County	3	577	1.0	1.0	1.0	577	Yes	No	-	2.0
Union County	52	41,873	41.8	43.8	35.0	1,002	No	No	14.0	10.5
Vance County	17	6,296	10.0	10.0	9.0	630	Yes	No	-	7.0
Wake County	177	156,612	75.6	79.3	6.0	2,072	No	No	133.5	101.5
Warren County	8	2,238	4.0	4.0	4.0	560	Yes	No	-	4.0
Washington County	5	1,528	3.0	3.0	3.0	509	Yes	No	-	2.0
Watauga County	10	4,297	5.0	5.0	1.9	859	No	No	1.0	5.0
Wayne County	32	18,505	19.0	20.0	0.0	974	No	No	6.0	13.0
Weldon City	4	883	2.0	2.0	1.8	442	Yes	No	-	2.0
Whiteville City	5	2,223	4.0	4.0	3.9	556	Yes	No	-	1.0
Wilkes County	22	9,568	9.5	9.5	8.7	1,004	No	No	3.5	12.5
Wilson County	26	12,072	6.0	6.0	4.8	2,012	No	No	10.5	20.0

LEA Name	Number of Schools 2015–16	Student Population 2015–16	Direct Care Nurse FTE 2015–16	Total Nurse FTE including Administrative Positions	State-Funded FTE	Students Per Nurse	Achieves 1:750 Ratio?	Achieves 1 Nurse Per School Ratio?	Number of Additional Nurses Needed to Achieve 1:750 Ratio	Number of Additional Nurses Needed to Achieve 1 Nurse in Every School
Yadkin County	14	5,325	6.0	6.0	4.8	888	No	No	1.5	8.0
Yancey County	9	2,198	4.5	4.5	2.0	485	Yes	No	-	4.5
<b>North Carolina Totals</b>	<b>2,452</b>	<b>1,432,507</b>	<b>1,318</b>	<b>1,376</b>	<b>659</b>	<b>1,086</b>	<b>46</b>	<b>5</b>	<b>654</b>	<b>1,143</b>

Note: Students Per Nurse is based on the number of direct care nurses in an LEA and not the total number of school nurses which includes administrative nurses. Numbers of additional nurses needed are rounded up to the nearest half position as it may not be possible to hire additional staff in lower increments.

Source: Program Evaluation Division based on data from the Department of Health and Human Services, Department of Public Instruction, and a survey of LEAs.

## Appendix C: Local Education Agencies Sorted by Attainment of 1:750 School Nurse-to-Student Ratio

LEA Name	Number of Schools 2015-16	Student Population 2015-16	Direct Care Nurse FTE 2015-16	Total Nurse FTE including Administrative Positions	State-Funded FTE	Students Per Nurse	Achieves 1:750 Ratio?	Achieves 1 Nurse Per School Ratio?	Number of Additional Nurses Needed to Achieve 1:750 Ratio	Number of Additional Nurses Needed to Achieve 1 Nurse in Every School
<b>LEAs That Meet the 1:750 Nurse-to-Student Ratio</b>										
Alleghany County	4	1,376	2.0	2.0	1.8	688	Yes	No	-	2.0
Anson County	11	3,415	7.0	8.0	8.7	488	Yes	No	-	4.0
Avery County	11	2,064	3.0	3.0	2.5	688	Yes	No	-	8.0
Bertie County	8	2,280	3.9	3.9	3.0	580	Yes	No	-	4.5
Bladen County	13	4,630	6.7	7.1	6.5	694	Yes	No	-	6.5
Camden County	5	1,800	3.0	3.0	1.0	600	Yes	No	-	2.0
Caswell County	6	2,689	4.0	4.0	4.0	672	Yes	No	-	2.0
Chapel Hill-Carrboro	20	11,965	18.0	18.0	3.0	665	Yes	No	-	2.0
Clay County	3	1,302	2.0	2.0	2.0	651	Yes	No	-	1.0
Columbus County	18	5,883	8.0	8.0	8.0	735	Yes	No	-	10.0
Craven County	25	14,004	21.0	21.6	21.1	666	Yes	No	-	4.0
Currituck County	10	3,966	8.2	8.2	1.2	484	Yes	No	-	2.0
Dare County	11	4,944	10.0	10.0	0.0	494	Yes	No	-	1.0
Duplin County	16	9,690	14.0	14.0	12.1	692	Yes	No	-	2.0
Edenton/Chowan	4	2,049	4.0	4.0	4.0	512	Yes	Yes	-	-
Gates County	5	1,612	3.0	3.0	2.5	537	Yes	No	-	2.0
Graham County	3	1,152	2.5	2.5	1.6	455	Yes	No	-	0.5
Greene County	6	3,141	4.2	5.0	4.0	748	Yes	No	-	2.0
Halifax County	10	2,732	5.0	5.0	4.0	546	Yes	No	-	5.0
Hertford County	7	2,884	5.0	5.0	4.8	577	Yes	No	-	2.0
Hyde County	3	584	1.0	1.0	1.0	584	Yes	No	-	2.0
Jones County	6	1,077	2.0	2.0	1.5	539	Yes	No	-	4.0
Kannapolis City	8	5,310	8.0	10.0	0.0	664	Yes	Yes	-	-
Madison County	6	2,374	4.0	4.0	3.0	594	Yes	No	-	2.0
Martin County	10	3,218	6.0	6.0	5.9	536	Yes	No	-	4.0
McDowell County	13	6,183	8.5	8.5	7.8	725	Yes	No	-	4.5

LEA Name	Number of Schools 2015-16	Student Population 2015-16	Direct Care Nurse FTE 2015-16	Total Nurse FTE including Administrative Positions	State-Funded FTE	Students Per Nurse	Achieves 1:750 Ratio?	Achieves 1 Nurse Per School Ratio?	Number of Additional Nurses Needed to Achieve 1:750 Ratio	Number of Additional Nurses Needed to Achieve 1 Nurse in Every School
Mitchell County	7	1,868	3.0	3.0	2.8	623	Yes	No	-	4.0
Nash-Rocky Mount	28	15,415	20.7	20.7	17.6	746	Yes	No	-	7.5
Northampton County	7	1,842	3.9	4.2	4.0	469	Yes	No	-	3.5
Orange County	13	7,501	11.3	12.1	8.2	661	Yes	No	-	2.0
Pamlico County	4	1,278	4.0	4.0	3.0	320	Yes	Yes	-	-
Perquimans County	4	1,684	3.0	3.0	3.0	561	Yes	No	-	1.0
Person County	11	4,570	7.0	7.0	7.0	653	Yes	No	-	4.0
Polk County	7	2,169	4.0	5.0	3.9	542	Yes	No	-	3.0
Richmond County	16	7,343	10.3	10.3	10.3	715	Yes	No	-	6.0
Roanoke Rapids City	4	2,864	4.0	4.0	3.3	716	Yes	Yes	-	-
Scotland County	12	5,818	10.0	10.0	9.7	582	Yes	No	-	2.0
Swain County	5	1,896	3.8	3.8	2.9	500	Yes	No	-	1.5
Thomasville City	4	2,375	4.0	4.3	4.0	594	Yes	Yes	-	-
Tyrrell County	3	577	1.0	1.0	1.0	577	Yes	No	-	2.0
Vance County	17	6,296	10.0	10.0	9.0	630	Yes	No	-	7.0
Warren County	8	2,238	4.0	4.0	4.0	560	Yes	No	-	4.0
Washington County	5	1,528	3.0	3.0	3.0	509	Yes	No	-	2.0
Weldon City	4	883	2.0	2.0	1.8	442	Yes	No	-	2.0
Whiteville City	5	2,223	4.0	4.0	3.9	556	Yes	No	-	1.0
Yancey County	9	2,198	4.5	4.5	2.0	485	Yes	No	-	4.5
<b>LEAs That Do Not Meet the 1:750 Nurse-to-Student Ratio</b>										
Alamance-Burlington	36	22,600	24.5	25.1	15.2	921	No	No	6.0	11.5
Alexander County	11	4,943	5.2	5.6	5.0	951	No	No	1.5	6.0
Ashe County	5	3,066	4.0	4.0	3.2	767	No	No	0.5	1.0
Asheboro City	8	4,648	6.0	6.0	4.7	775	No	No	0.5	2.0
Asheville City	8	4,396	4.0	5.0	0.6	1,099	No	No	2.0	4.0
Beaufort County	14	6,836	6.0	6.0	5.0	1,139	No	No	3.5	8.0
Brunswick County	19	12,369	11.0	11.0	8.8	1,124	No	No	5.5	8.0
Buncombe County	44	24,305	21.6	22.6	3.2	1,126	No	No	11.0	22.5

<b>LEA Name</b>	<b>Number of Schools 2015-16</b>	<b>Student Population 2015-16</b>	<b>Direct Care Nurse FTE 2015-16</b>	<b>Total Nurse FTE including Administrative Positions</b>	<b>State-Funded FTE</b>	<b>Students Per Nurse</b>	<b>Achieves 1:750 Ratio?</b>	<b>Achieves 1 Nurse Per School Ratio?</b>	<b>Number of Additional Nurses Needed to Achieve 1:750 Ratio</b>	<b>Number of Additional Nurses Needed to Achieve 1 Nurse in Every School</b>
Burke County	27	12,360	11.1	11.1	2.0	1,118	No	No	5.5	16.0
Cabarrus County	39	31,260	34.0	35.0	0.8	919	No	No	8.0	5.0
Caldwell County	26	11,964	11.0	12.0	5.7	1,088	No	No	5.0	15.0
Carteret County	17	8,246	8.0	8.0	5.6	1,031	No	No	3.0	9.0
Catawba County	28	16,333	14.9	15.5	0.8	1,094	No	No	7.0	13.5
Charlotte-Mecklenburg	170	145,444	163.7	180.7	1.0	889	No	No	30.5	6.5
Chatham County	18	8,436	7.0	7.0	6.0	1,205	No	No	4.5	11.0
Cherokee County	14	3,329	4.1	4.1	1.7	820	No	No	0.5	10.0
Cleveland County	29	14,906	14.0	15.0	2.7	1,065	No	No	6.0	15.0
Clinton City	5	3,047	4.0	4.0	3.5	762	No	No	0.5	1.0
Cumberland County	87	49,918	22.3	23.9	9.3	2,242	No	No	44.5	65.0
Davidson County	35	19,166	8.6	8.9	4.4	2,226	No	No	17.0	26.5
Davie County	12	6,265	6.7	7.1	6.5	939	No	No	2.0	5.5
Durham Public	54	33,144	26.5	28.1	8.0	1,249	No	No	18.0	27.5
Edgecombe County	14	5,953	7.7	8.2	8.0	776	No	No	0.5	6.5
Elkin City	3	1,193	1.5	1.5	1.2	780	No	No	0.5	1.5
Forsyth County	80	53,947	39.5	40.5	6.9	1,365	No	No	32.5	40.5
Franklin County	16	8,405	7.7	8.1	8.0	1,096	No	No	3.5	8.5
Gaston County	54	31,285	28.3	29.3	25.7	1,104	No	No	13.5	26.0
Granville County	19	7,868	5.0	5.0	4.0	1,574	No	No	5.5	14.0
Guilford County	126	71,429	36.7	39.7	1.5	1,948	No	No	59.0	90.0
Harnett County	28	20,252	9.3	10.1	10.7	2,185	No	No	18.0	19.0
Haywood County	15	7,134	6.9	6.9	4.0	1,034	No	No	3.0	8.5
Henderson County	23	13,506	12.0	12.0	1.5	1,126	No	No	6.0	11.0
Hickory City	9	4,258	5.0	5.5	1.7	852	No	No	1.0	4.0
Hoke County	14	8,300	9.0	9.0	8.5	922	No	No	2.5	5.0
Iredell-Statesville	36	20,643	14.8	15.8	12.3	1,395	No	No	13.0	21.5
Jackson County	9	3,685	4.5	5.2	3.0	813	No	No	0.5	4.5

<b>LEA Name</b>	<b>Number of Schools 2015-16</b>	<b>Student Population 2015-16</b>	<b>Direct Care Nurse FTE 2015-16</b>	<b>Total Nurse FTE including Administrative Positions</b>	<b>State-Funded FTE</b>	<b>Students Per Nurse</b>	<b>Achieves 1:750 Ratio?</b>	<b>Achieves 1 Nurse Per School Ratio?</b>	<b>Number of Additional Nurses Needed to Achieve 1:750 Ratio</b>	<b>Number of Additional Nurses Needed to Achieve 1 Nurse in Every School</b>
Johnston County	46	34,452	18.8	19.1	17.2	1,833	No	No	27.5	27.5
Lee County	16	9,981	9.8	10.1	7.2	1,018	No	No	3.5	6.5
Lenoir County	17	8,846	7.0	7.0	6.0	1,264	No	No	5.0	10.0
Lexington City	7	3,008	4.0	4.3	2.5	752	No	No	-	3.0
Lincoln County	24	11,410	8.0	8.0	8.0	1,426	No	No	7.5	16.0
Macon County	11	4,341	4.8	5.7	3.0	904	No	No	1.0	6.5
Montgomery County	11	3,950	5.0	5.0	4.7	790	No	No	0.5	6.0
Moore County	23	12,769	9.0	10.0	7.3	1,419	No	No	8.0	14.0
Mooreville City	8	6,020	6.0	6.0	5.8	1,003	No	No	2.0	2.0
Mount Airy City	4	1,594	2.0	2.0	1.7	797	No	No	0.5	2.0
New Hanover County	42	25,901	34.1	36.1	0.0	759	No	No	0.5	8.0
Newton Conover City	7	3,088	3.7	4.2	0.6	844	No	No	0.5	3.5
Onslow County	35	25,702	21.0	21.0	18.0	1,224	No	No	13.5	14.0
Pasquotank County	12	5,739	7.0	7.0	4.9	820	No	No	1.0	5.0
Pender County	16	8,923	9.5	10.2	7.1	936	No	No	2.5	6.5
Pitt County	37	23,239	20.0	21.0	5.0	1,162	No	No	11.0	17.0
Randolph County	31	17,460	11.0	11.0	8.0	1,587	No	No	12.5	20.0
Robeson County	42	23,240	24.0	25.0	19.0	968	No	No	7.0	18.0
Rockingham County	25	12,591	9.0	9.0	8.6	1,399	No	No	8.0	16.0
Rowan-Salisbury	35	19,525	12.0	12.0	8.3	1,627	No	No	14.0	23.0
Rutherford County	18	8,169	8.0	8.0	6.0	1,021	No	No	3.0	10.0
Sampson County	18	8,371	8.8	9.1	7.3	951	No	No	2.5	9.5
Stanly County	20	8,514	7.0	7.0	6.1	1,216	No	No	4.5	13.0
Stokes County	19	6,135	5.0	5.0	5.0	1,227	No	No	3.5	14.0
Surry County	19	8,118	10.0	10.0	9.4	812	No	No	1.0	9.0
Transylvania County	9	3,440	3.0	3.0	1.0	1,147	No	No	2.0	6.0
Union County	52	41,873	41.8	43.8	35.0	1,002	No	No	14.0	10.5
Wake County	177	156,612	75.6	79.3	6.0	2,072	No	No	133.5	101.5
Watauga County	10	4,297	5.0	5.0	1.9	859	No	No	1.0	5.0

LEA Name	Number of Schools 2015-16	Student Population 2015-16	Direct Care Nurse FTE 2015-16	Total Nurse FTE including Administrative Positions	State-Funded FTE	Students Per Nurse	Achieves 1:750 Ratio?	Achieves 1 Nurse Per School Ratio?	Number of Additional Nurses Needed to Achieve 1:750 Ratio	Number of Additional Nurses Needed to Achieve 1 Nurse in Every School
Wayne County	32	18,505	19.0	20.0	0.0	974	No	No	6.0	13.0
Wilkes County	22	9,568	9.5	9.5	8.7	1,004	No	No	3.5	12.5
Wilson County	26	12,072	6.0	6.0	4.8	2,012	No	No	10.5	20.0
Yadkin County	14	5,325	6.0	6.0	4.8	888	No	No	1.5	8.0
<b>North Carolina Totals</b>	<b>2,452</b>	<b>1,432,507</b>	<b>1,318</b>	<b>1,376</b>	<b>659</b>	<b>1,086</b>	<b>46</b>	<b>5</b>	<b>654</b>	<b>1,143</b>

Note: Students Per Nurse is based on the number of direct care nurses in an LEA and not the total number of school nurses which includes administrative nurses. Numbers of additional nurses needed are rounded up to the nearest half position as it may not be possible to hire additional staff in lower increments.

Source: Program Evaluation Division based on data from the Department of Health and Human Services, Department of Public Instruction, and a survey of LEAs.

## Appendix D: Local Education Agencies Sorted by Attainment of One Nurse per School

LEA Name	Number of Schools 2015-16	Student Population 2015-16	Direct Care Nurse FTE 2015-16	Total Nurse FTE including Administrative Positions	State-Funded FTE	Students Per Nurse	Achieves 1:750 Ratio?	Achieves 1 Nurse Per School Ratio?	Number of Additional Nurses Needed to Achieve 1:750 Ratio	Number of Additional Nurses Needed to Achieve 1 Nurse in Every School
<b>LEAs That Have One Nurse Per School</b>										
Edenton/Chowan	4	2,049	4.0	4.0	4.0	512	Yes	Yes	-	-
Kannapolis City	8	5,310	8.0	10.0	0.0	664	Yes	Yes	-	-
Pamlico County	4	1,278	4.0	4.0	3.0	320	Yes	Yes	-	-
Roanoke Rapids City	4	2,864	4.0	4.0	3.3	716	Yes	Yes	-	-
Thomasville City	4	2,375	4.0	4.3	4.0	594	Yes	Yes	-	-
<b>LEAs With Fewer Than One Nurse Per School</b>										
Alamance-Burlington	36	22,600	24.5	25.1	15.2	921	No	No	6.0	11.5
Alexander County	11	4,943	5.2	5.6	5.0	951	No	No	1.5	6.0
Alleghany County	4	1,376	2.0	2.0	1.8	688	Yes	No	-	2.0
Anson County	11	3,415	7.0	8.0	8.7	488	Yes	No	-	4.0
Ashe County	5	3,066	4.0	4.0	3.2	767	No	No	0.5	1.0
Asheboro City	8	4,648	6.0	6.0	4.7	775	No	No	0.5	2.0
Asheville City	8	4,396	4.0	5.0	0.6	1,099	No	No	2.0	4.0
Avery County	11	2,064	3.0	3.0	2.5	688	Yes	No	-	8.0
Beaufort County	14	6,836	6.0	6.0	5.0	1,139	No	No	3.5	8.0
Bertie County	8	2,280	3.9	3.9	3.0	580	Yes	No	-	4.5
Bladen County	13	4,630	6.7	7.1	6.5	694	Yes	No	-	6.5
Brunswick County	19	12,369	11.0	11.0	8.8	1,124	No	No	5.5	8.0
Buncombe County	44	24,305	21.6	22.6	3.2	1,126	No	No	11.0	22.5
Burke County	27	12,360	11.1	11.1	2.0	1,118	No	No	5.5	16.0
Cabarrus County	39	31,260	34.0	35.0	0.8	919	No	No	8.0	5.0
Caldwell County	26	11,964	11.0	12.0	5.7	1,088	No	No	5.0	15.0
Camden County	5	1,800	3.0	3.0	1.0	600	Yes	No	-	2.0
Carteret County	17	8,246	8.0	8.0	5.6	1,031	No	No	3.0	9.0
Caswell County	6	2,689	4.0	4.0	4.0	672	Yes	No	-	2.0
Catawba County	28	16,333	14.9	15.5	0.8	1,094	No	No	7.0	13.5



<b>LEA Name</b>	<b>Number of Schools 2015-16</b>	<b>Student Population 2015-16</b>	<b>Direct Care Nurse FTE 2015-16</b>	<b>Total Nurse FTE including Administrative Positions</b>	<b>State-Funded FTE</b>	<b>Students Per Nurse</b>	<b>Achieves 1:750 Ratio?</b>	<b>Achieves 1 Nurse Per School Ratio?</b>	<b>Number of Additional Nurses Needed to Achieve 1:750 Ratio</b>	<b>Number of Additional Nurses Needed to Achieve 1 Nurse in Every School</b>
Chapel Hill-Carrboro	20	11,965	18.0	18.0	3.0	665	Yes	No	-	2.0
Charlotte-Mecklenburg	170	145,444	163.7	180.7	1.0	889	No	No	30.5	6.5
Chatham County	18	8,436	7.0	7.0	6.0	1,205	No	No	4.5	11.0
Cherokee County	14	3,329	4.1	4.1	1.7	820	No	No	0.5	10.0
Clay County	3	1,302	2.0	2.0	2.0	651	Yes	No	-	1.0
Cleveland County	29	14,906	14.0	15.0	2.7	1,065	No	No	6.0	15.0
Clinton City	5	3,047	4.0	4.0	3.5	762	No	No	0.5	1.0
Columbus County	18	5,883	8.0	8.0	8.0	735	Yes	No	-	10.0
Craven County	25	14,004	21.0	21.6	21.1	666	Yes	No	-	4.0
Cumberland County	87	49,918	22.3	23.9	9.3	2,242	No	No	44.5	65.0
Currituck County	10	3,966	8.2	8.2	1.2	484	Yes	No	-	2.0
Dare County	11	4,944	10.0	10.0	0.0	494	Yes	No	-	1.0
Davidson County	35	19,166	8.6	8.9	4.4	2,226	No	No	17.0	26.5
Davie County	12	6,265	6.7	7.1	6.5	939	No	No	2.0	5.5
Duplin County	16	9,690	14.0	14.0	12.1	692	Yes	No		2.0
Durham Public	54	33,144	26.5	28.1	8.0	1,249	No	No	18.0	27.5
Edgecombe County	14	5,953	7.7	8.2	8.0	776	No	No	0.5	6.5
Elkin City	3	1,193	1.5	1.5	1.2	780	No	No	0.5	1.5
Forsyth County	80	53,947	39.5	40.5	6.9	1,365	No	No	32.5	40.5
Franklin County	16	8,405	7.7	8.1	8.0	1,096	No	No	3.5	8.5
Gaston County	54	31,285	28.3	29.3	25.7	1,104	No	No	13.5	26.0
Gates County	5	1,612	3.0	3.0	2.5	537	Yes	No		2.0
Graham County	3	1,152	2.5	2.5	1.6	455	Yes	No		0.5
Granville County	19	7,868	5.0	5.0	4.0	1,574	No	No	5.5	14.0
Greene County	6	3,141	4.2	5.0	4.0	748	Yes	No		2.0
Guilford County	126	71,429	36.7	39.7	1.5	1,948	No	No	59.0	90.0
Halifax County	10	2,732	5.0	5.0	4.0	546	Yes	No	-	5.0
Harnett County	28	20,252	9.3	10.1	10.7	2,185	No	No	18.0	19.0

LEA Name	Number of Schools 2015-16	Student Population 2015-16	Direct Care Nurse FTE 2015-16	Total Nurse FTE including Administrative Positions	State-Funded FTE	Students Per Nurse	Achieves 1:750 Ratio?	Achieves 1 Nurse Per School Ratio?	Number of Additional Nurses Needed to Achieve 1:750 Ratio	Number of Additional Nurses Needed to Achieve 1 Nurse in Every School
Haywood County	15	7,134	6.9	6.9	4.0	1,034	No	No	3.0	8.5
Henderson County	23	13,506	12.0	12.0	1.5	1,126	No	No	6.0	11.0
Hertford County	7	2,884	5.0	5.0	4.8	577	Yes	No	-	2.0
Hickory City	9	4,258	5.0	5.5	1.7	852	No	No	1.0	4.0
Hoke County	14	8,300	9.0	9.0	8.5	922	No	No	2.5	5.0
Hyde County	3	584	1.0	1.0	1.0	584	Yes	No	-	2.0
Iredell-Statesville	36	20,643	14.8	15.8	12.3	1,395	No	No	13.0	21.5
Jackson County	9	3,685	4.5	5.2	3.0	813	No	No	0.5	4.5
Johnston County	46	34,452	18.8	19.1	17.2	1,833	No	No	27.5	27.5
Jones County	6	1,077	2.0	2.0	1.5	539	Yes	No	-	4.0
Lee County	16	9,981	9.8	10.1	7.2	1,018	No	No	3.5	6.5
Lenoir County	17	8,846	7.0	7.0	6.0	1,264	No	No	5.0	10.0
Lexington City	7	3,008	4.0	4.3	2.5	752	No	No	-	3.0
Lincoln County	24	11,410	8.0	8.0	8.0	1,426	No	No	7.5	16.0
Macon County	11	4,341	4.8	5.7	3.0	904	No	No	1.0	6.5
Madison County	6	2,374	4.0	4.0	3.0	594	Yes	No	-	2.0
Martin County	10	3,218	6.0	6.0	5.9	536	Yes	No	-	4.0
McDowell County	13	6,183	8.5	8.5	7.8	725	Yes	No	-	4.5
Mitchell County	7	1,868	3.0	3.0	2.8	623	Yes	No	-	4.0
Montgomery County	11	3,950	5.0	5.0	4.7	790	No	No	0.5	6.0
Moore County	23	12,769	9.0	10.0	7.3	1,419	No	No	8.0	14.0
Mooresville City	8	6,020	6.0	6.0	5.8	1,003	No	No	2.0	2.0
Mount Airy City	4	1,594	2.0	2.0	1.7	797	No	No	0.5	2.0
Nash-Rocky Mount	28	15,415	20.7	20.7	17.6	746	Yes	No	-	7.5
New Hanover County	42	25,901	34.1	36.1	0.0	759	No	No	0.5	8.0
Newton Conover City	7	3,088	3.7	4.2	0.6	844	No	No	0.5	3.5
Northampton County	7	1,842	3.9	4.2	4.0	469	Yes	No	-	3.5
Onslow County	35	25,702	21.0	21.0	18.0	1,224	No	No	13.5	14.0
Orange County	13	7,501	11.3	12.1	8.2	661	Yes	No	-	2.0

<b>LEA Name</b>	<b>Number of Schools 2015-16</b>	<b>Student Population 2015-16</b>	<b>Direct Care Nurse FTE 2015-16</b>	<b>Total Nurse FTE including Administrative Positions</b>	<b>State-Funded FTE</b>	<b>Students Per Nurse</b>	<b>Achieves 1:750 Ratio?</b>	<b>Achieves 1 Nurse Per School Ratio?</b>	<b>Number of Additional Nurses Needed to Achieve 1:750 Ratio</b>	<b>Number of Additional Nurses Needed to Achieve 1 Nurse in Every School</b>
Pasquotank County	12	5,739	7.0	7.0	4.9	820	No	No	1.0	5.0
Pender County	16	8,923	9.5	10.2	7.1	936	No	No	2.5	6.5
Perquimans County	4	1,684	3.0	3.0	3.0	561	Yes	No	-	1.0
Person County	11	4,570	7.0	7.0	7.0	653	Yes	No	-	4.0
Pitt County	37	23,239	20.0	21.0	5.0	1,162	No	No	11.0	17.0
Polk County	7	2,169	4.0	5.0	3.9	542	Yes	No		3.0
Randolph County	31	17,460	11.0	11.0	8.0	1,587	No	No	12.5	20.0
Richmond County	16	7,343	10.3	10.3	10.3	715	Yes	No	-	6.0
Robeson County	42	23,240	24.0	25.0	19.0	968	No	No	7.0	18.0
Rockingham County	25	12,591	9.0	9.0	8.6	1,399	No	No	8.0	16.0
Rowan-Salisbury	35	19,525	12.0	12.0	8.3	1,627	No	No	14.0	23.0
Rutherford County	18	8,169	8.0	8.0	6.0	1,021	No	No	3.0	10.0
Sampson County	18	8,371	8.8	9.1	7.3	951	No	No	2.5	9.5
Scotland County	12	5,818	10.0	10.0	9.7	582	Yes	No	-	2.0
Stanly County	20	8,514	7.0	7.0	6.1	1,216	No	No	4.5	13.0
Stokes County	19	6,135	5.0	5.0	5.0	1,227	No	No	3.5	14.0
Surry County	19	8,118	10.0	10.0	9.4	812	No	No	1.0	9.0
Swain County	5	1,896	3.8	3.8	2.9	500	Yes	No	-	1.5
Transylvania County	9	3,440	3.0	3.0	1.0	1,147	No	No	2.0	6.0
Tyrrell County	3	577	1.0	1.0	1.0	577	Yes	No	-	2.0
Union County	52	41,873	41.8	43.8	35.0	1,002	No	No	14.0	10.5
Vance County	17	6,296	10.0	10.0	9.0	630	Yes	No	-	7.0
Wake County	177	156,612	75.6	79.3	6.0	2,072	No	No	133.5	101.5
Warren County	8	2,238	4.0	4.0	4.0	560	Yes	No	-	4.0
Washington County	5	1,528	3.0	3.0	3.0	509	Yes	No	-	2.0
Watauga County	10	4,297	5.0	5.0	1.9	859	No	No	1.0	5.0
Wayne County	32	18,505	19.0	20.0	0.0	974	No	No	6.0	13.0
Weldon City	4	883	2.0	2.0	1.8	442	Yes	No	-	2.0
Whiteville City	5	2,223	4.0	4.0	3.9	556	Yes	No	-	1.0

LEA Name	Number of Schools 2015-16	Student Population 2015-16	Direct Care Nurse FTE 2015-16	Total Nurse FTE including Administrative Positions	State-Funded FTE	Students Per Nurse	Achieves 1:750 Ratio?	Achieves 1 Nurse Per School Ratio?	Number of Additional Nurses Needed to Achieve 1:750 Ratio	Number of Additional Nurses Needed to Achieve 1 Nurse in Every School
Wilkes County	22	9,568	9.5	9.5	8.7	1,004	No	No	3.5	12.5
Wilson County	26	12,072	6.0	6.0	4.8	2,012	No	No	10.5	20.0
Yadkin County	14	5,325	6.0	6.0	4.8	888	No	No	1.5	8.0
Yancey County	9	2,198	4.5	4.5	2.0	485	Yes	No	-	4.5
<b>North Carolina Totals</b>	<b>2,452</b>	<b>1,432,507</b>	<b>1,318</b>	<b>1,376</b>	<b>659</b>	<b>1,086</b>	<b>46</b>	<b>5</b>	<b>654</b>	<b>1,143</b>

Note: Students Per Nurse is based on the number of direct care nurses in an LEA and not the total number of school nurses which includes administrative nurses. Numbers of additional nurses needed are rounded up to the nearest half position as it may not be possible to hire additional staff in lower increments.

Source: Program Evaluation Division based on data from the Department of Health and Human Services, Department of Public Instruction, and a survey of LEAs.