A MODEL FOR SCHOOL NURSE-LED CASE MANAGEMENT

GUIDANCE AND RESOURCES TO SUPPORT THE SCHOOL NURSE IN PROVIDING CASE MANAGEMENT FOR STUDENTS WITH CHRONIC HEALTH CONDITIONS

NASN
National Association of School Nurses

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SECTION 1: INTRODUCTION

PURPOSE OF SCHOOL NURSE-LED CASE MANAGEMENT

At its core, school nurse-led case management (SNLCM) involves the highest form of application of the nursing process. While the focus is on students with chronic health conditions, SNLCM can also be applied to various social, mental, and acute health concerns of individual students or the student population as a whole (National Association of School Nurses [NASN], 2020a).

This manual describes SNLCM and its benefits for students. It is intended to guide school nurses and school nurse leaders who plan to implement SNLCM, to outline the key components of SNLCM, and to provide program implementation and evaluation strategies and tools.

SNLCM assists students with health-related needs to successfully manage their needs, reduces barriers to academic performance, and increases student engagement. A consistent

approach to care is provided, one that reflects the full scope of professional school nursing practice for the most vulnerable students, those with significant physical and behavioral concerns impacting school attendance and academic success.

This manual builds upon foundational work including NASN's *Framework for 21st Century School Nursing Practice*™ (*Framework*), the Whole School, Whole Community, Whole Child (WSCC) model, and the standards of professional school nursing practice (NASN, 2016b; ASCD & Centers for Disease Control and Prevention [CDC], 2014; American Nurses Association [ANA] & NASN, 2017). The guidance aligns with the multi-tiered system of support (MTSS) framework commonly used by educators (McIntosh & Goodman, 2016) and builds on the field experience in SNLCM in North Carolina and Washington (Best et al., 2020; Gray et al., 2020). (Refer to Appendix B)

CASE MANAGEMENT DEFINED

Case management is one of the practice components of the Care Coordination principle – one of the five nonhierarchical principles of NASN's *Framework,* which provides guidance for the specialty practice of school nursing (NASN, 2016b). As defined by NASN's *Framework,* the practice component of case management is a collaborative approach to provide and coordinate school health services. Case management involves the child's personal (i.e., student, family, specialty, community healthcare providers) and school (i.e., student, family, healthcare provider, student instructional support personnel) health teams. Case management strategies help deal with, prevent, and/or reduce the occurrence of health problems to find solutions inside and outside of school and traditional healthcare systems, such as addressing transportation, housing, and food security concerns. The strategies are proactive, comprehensive, promote self-care and independence, and address both health and academic goals; and they are outlined in a student's individualized healthcare plan (IHP) (NASN, 2020a).

Case management involves a systems-level of care. It is not a single intervention but a continuous process of achieving goals and managing setbacks (Engelke et al., 2009; NASN, 2016a & b; Case Management Society of America, 2016).

SNLCM programs in North Carolina and Washington have developed working definitions of case management for their respective programs. The North Carolina School Health Program defines school nurse case management as "the intentional use and documentation of the steps of the nursing process in a manner that achieves individualized health and

THE NEED FOR SCHOOL NURSE-LED CASE MANAGEMENT

AN ESTIMATED 56.4 MILLION CHILDREN AND YOUTH IN THE U.S. WERE ENROLLED IN SCHOOL (prekindergarten-grade 12) for the 2020-2021 academic year: 50.7 million students in public schools and 5.7 million in private schools (National Center of Education Statistics [NCES], 2020). In 2017-2018, approximately **18.5% of U.S. children (13.6 million) had one or more special healthcare needs** (Health Resources and Services Administration [HRSA], Maternal Child Health Bureau [MCHB], 2020). Children with special healthcare needs are "those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally" (HRSA, MCHB, p.1). Additionally, of U.S. public school students, **13.7% are categorized as having disabilities** (NCES, 2020) under Section 504 of the Individuals with Disabilities Improvement Act (IDEA, 2004). Since 1975, these students have been entitled to a free and appropriate public education (FAPE), which includes the right to nursing services at school.

EXAMPLES OF SPECIAL HEALTHCARE NEEDS IN CHILDREN that warrant case management at school may include asthma, diabetes, severe allergies, seizure disorders, neurodevelopmental disorders, attention deficit disorders, and mental/behavioral health issues. Children with special healthcare needs are **more likely than typical peers to require medications and healthcare services**, visit the emergency department, be absent from school, and suffer from mental/behavioral health issues. For more information on children with special healthcare needs, see *Children with Special Healthcare Needs: National Survey of Children's Health (NSCH) Data Brief, 2020* (HRSA, MCHB, 2020).

Students with chronic health conditions (e.g., asthma, seizure disorders, diabetes, severe allergies) are more likely than peers without health conditions to have lower academic performance measured by class grades, standardized test scores, and graduation rates. They also are more likely to have poorer education-related behavior indicated by attendance and dropout rates, as well as behavior problems in school (CDC, 2017a & b). Among other factors, chronic health conditions in childhood are associated with chronic absenteeism (Allison & Attisha, 2019), defined as missing 10% of the school year or more than two days per month (Chang et al., 2019). **Chronically absent students are at increased risk** for poor academic achievement, unhealthy behaviors, and poor health outcomes in adulthood (Allison & Attisha, 2019).

STUDENTS WHO HAVE DIRECT ACCESS TO SCHOOL NURSING AND HEALTH SERVICES enjoy measurably improved health AND education outcomes (Leroy et al., 2017). SNLCM promotes wellness and reduces absenteeism and loss of instructional time thereby improving learning for students with chronic conditions (NASN, 2020d).

educational goals" (North Carolina Department of Health and Human Services, Division of Public Health, 2020b, p. 2). The Washington School Nurse Case Management Program defines case management as "a process by which the school nurse identifies children who are not achieving their optimal level of health or academic success because they have a chronic condition that is limiting their potential. It is based on a thorough assessment by the school nurse, including input from family and teachers" (Maike & Drevdahl, 2014, p. 9).

GOALS OF SCHOOL NURSE-LED CASE MANAGEMENT

The goals of a SNLCM in schools for students with chronic health conditions are to provide healthcare coordination to

- improve student health outcomes
- foster student self-management of health conditions
- increase student school attendance
- support student academic success
- engage and support families

(Maike & Drevdahl, 2014; North Carolina Department of Health and Human Services, Division of Public Health, 2020a &b; NASN, 2020a).

A SNLCM program can also provide professional support for school nurses and school health services stakeholders by

- improving the quality of nursing services

- contributing to the understanding of the impact and value of the registered nurse in the school setting on student health and academic success
- providing student health and academic outcome data for stakeholders to realize the value of program sustainability

The professional registered nurse works collaboratively with school staff; healthcare providers; child and family-serving community-based agencies; and other stakeholders to provide equitable access to academics for students who face health challenges. Ultimately, SNL-CM aims to optimize health and wellness so that students are healthy, safe, and ready to learn (Gray et al., 2020).

TARGET POPULATION FOR SCHOOL NURSE-LED CASE MANAGEMENT

Although the case management process can be used for any student with health, attendance, or academic concerns, individualized case management is most beneficial for students with multiple and complex barriers to health and academic success – those students susceptible to inequalities to health and health care access. The Multi-Tiered System of Supports (MTSS) model stems from the three-tiered public health model by providing universal supports that benefit all children in **Tier 1**, supplemental supports to some students in **Tier 2**, and intensified supports for identified students in **Tier 3** (Sailor et al., 2021). Identifying and addressing the needs of Tier 3 students with a chronic health condition removes barriers, allowing for inclusion and equity necessary to reach their full potential (Gray et al., 2020; Sailor et al., 2021). (Refer to Appendix B)

Tier 3 students are identified through case finding. Case finding is a component of student support services programs as a requirement of Child Find (2017) activities under the Individ-

> SCHOOL NURSES PRACTICE according to the NASN Code of Ethics (2016a) and the School Nursing Scope and Standards of Practice (ANA & NASN, 2017) which stipulate the importance of meeting the needs of diverse student groups. When decision making in case management, it is imperative that school nurses consider the needs of under-represented and underserved students to support equitable opportunities for optimal health, well-being, and academic success.

uals with Disabilities Education Act (IDEA, 2004). School nurses who participate in Child Find activities are case finding when they identify and prioritize students with health conditions who might benefit from case management services (IDEA, 2004). Many sources of data exist in schools that assist the nurse in this process, including the following:

- nursing assessments
- student mental history forms
- attendance reports
- academic progress reports
- health office visit records
- discipline reports
- referrals from family, school personnel, and medical providers
- healthcare provider orders

The realities of the school nurse practice environment may pose circumstances in which school nurse staffing and school health resources are limited. Therefore, astute nursing judgment is needed to prioritize SNLCM for those students who are most likely to benefit. Priorities should be determined along a continuum of student acuity and in consideration of feasible outcomes. Students that require Tier 3 services should be prioritized. Consider the possible priorities below:

HIGHEST PRIORITY: Students whose physical, emotional, or mental health conditions are most likely to cause morbidity or mortality. Students significantly adversely impacted by social determinants of health, social-emotional factors, comorbidities, and other risk factors.

HIGH PRIORITY: Students with physical, emotional, or mental health conditions who have increased school absence rates and/or are disengaged from the learning process.

PRIORITY: Students with increased risk for a physical, emotional, or mental health condition for whom services may prevent poor outcomes.

SECTION 2: THE PROCESS

THE PROCESS OF SCHOOL NURSE-LED CASE MANAGEMENT

SNLCM is an example of advanced application of both the standards of practice and the nursing process, infused with key components from frameworks including the WSCC model, NASN's *Framework*, and MTSS (Refer to Appendix B and Figure 1).

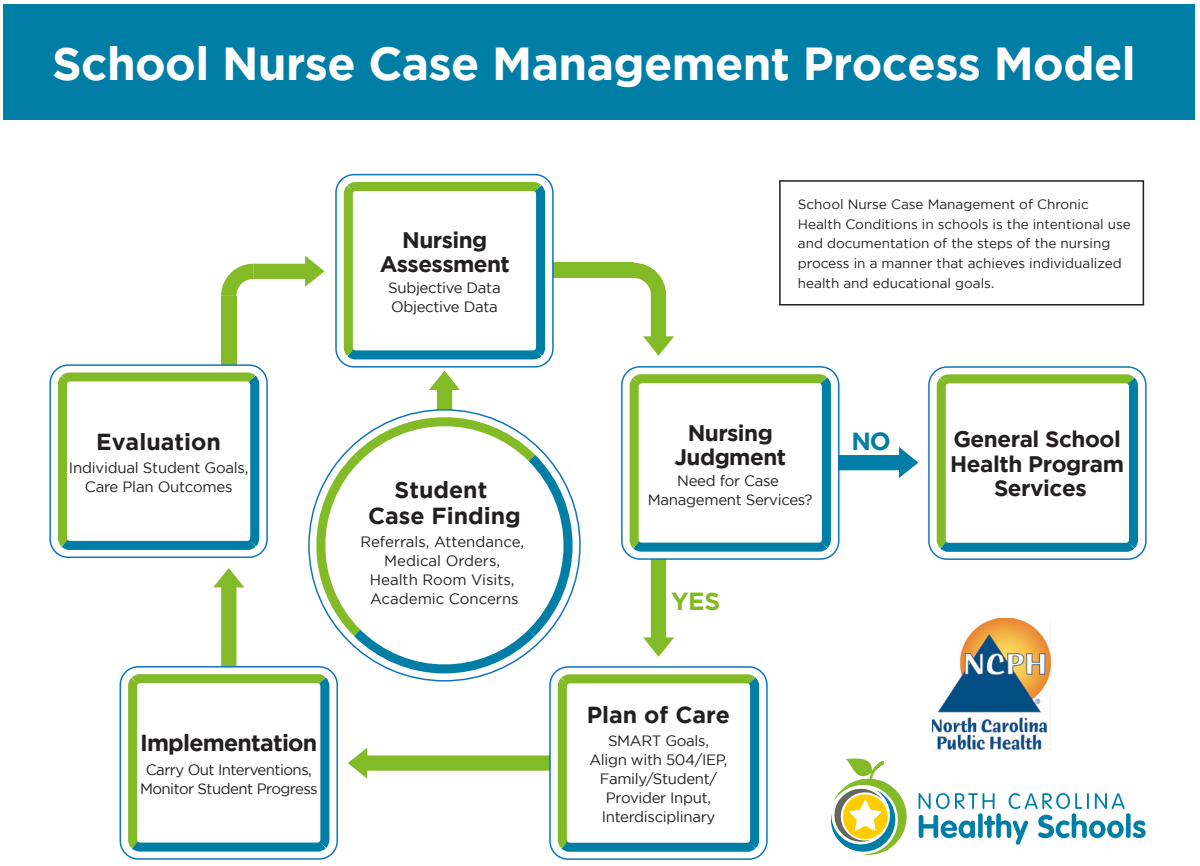


FIGURE 1 – North Carolina's Model for School Nurse Case Management of Chronic Conditions (Used with permission from the North Carolina's Division of Public Health, School Health Unit, 2020b)

NURSING ASSESSMENT

School nurses bring their expertise in health assessment to the school setting, including gathering both subjective and objective data, but often find that the nature of the school environment as an education setting changes the focus and composition of the assessment. Common to a nursing assessment conducted in other settings, components of the assessment would include

- past health history
- family history
- psychosocial history
- review of systems
- physical exam

Modification of a nursing assessment in the school setting for a student with a chronic health condition also includes gathering information relevant to the student's overall well-being and current status regarding self-management of a health condition and success in school and activities. Additional areas for review may include:

- social determinants of health (i.e., conditions in the places where students and families live, learn, work, and play)
- school environment (e.g., class schedule, school activities, education plans, academic indicators)
- individual factors (e.g., social needs, exposure to adverse childhood experiences [ACEs], strengths and resiliency factors, developmental level, self-management skills)
- actual or potential impact of the health condition on academic achievement (e.g., poorly managed blood glucose)

There are special considerations for school nurses when providing a physical assessment of students in the school setting. School nurses should adhere to local policy surrounding the need for parent/guardian consent for assessment outside of routine or emergency care given to all students during the school day. Legal and ethical principles

AN OVERVIEW OF NURSING ASSESSMENT TAILORED to the school setting is available in the school nursing literature. See also *School Nursing: A Comprehensive Text* (Selekman et al., 2019), which includes a School Nursing Assessment Checklist for Students with Special Health Care Needs (p. 182).

must be considered for any examination where a student would need to remove clothing or expose genital areas, and parent/guardian consent must be given before the nurse performs the examination, except when deemed emergent.

Documentation of assessment data in an organized manner is a nursing practice standard. When creating a relevant school health record, it is helpful to adopt a consistent format and method for recording nursing assessment data. Commonly used formats to document a nursing assessment include

- head-to-toe
- body systems
- functional health patterns

Documentation can be done electronically or by using another method. Electronic documentation platforms often dictate a systematic process of data entry by nature of their structured order. When school nurses do not have access to electronic documentation platforms documentation tools are needed to manage assessment data. One example is the North Carolina template, *Case Management Summary for School Nurses* (2020a).

STUDENT-CENTERED PLAN OF CARE

Planning care for a student with a chronic health condition includes adapting healthcare provider orders to the school setting and implementing independent nursing actions that support the attainment of health and academic goals identified in collaboration with the student and family. The structure and required components of a student's Individualized Healthcare Plan (IHP) or Emergency Care Plan (ECP) may be detailed or regulated in individual states by state nurse practice acts. School nurses should be well informed regarding practice requirements to which they are subject. Some state regulations require implementation of the nursing process and development of a plan of care without specific direction on format. In those situations, templates for the IHP and ECP may be reviewed and edited to meet the needs of practice. (Refer to Appendix A for a sample template.)

NASN DETAILS THE ROLE of the school nurse in development of an IHP in the position statement, *Use of Individualized Healthcare Plans to Support School Health Services* (NASN, 2020e).

When a student's health issue impacts access to education or the ability to learn, information from the IHP can be used by the school nurse to inform the development of other education plans, such as a 504 plan or accommodation plan as part of a student's Individual Education Program (IEP). (Refer to Appendix A for fact sheets on the various student plans.)

NURSING DIAGNOSIS

The nursing diagnosis is determined after the school nurse critically analyzes the assessment data in collaboration with the student and/or family and provides the basis for determining the student-centered focus of care. The development of nursing diagnoses is based on the student's current health condition and immediate needs (Sampson & Will, 2017). The nursing diagnosis is not the medical diagnosis, but rather the student response to the medical diagnosis that requires intervention at school. Confirming the priority nursing diagnoses with the student and family is a critical step in planning and providing student-centered care. The following are considerations when formulating a nursing diagnosis in the educational setting:

- safety of the student
- effect on the student's basic health needs
- management capabilities of student/family/school
- conditions that interfere with learning
- other issues that impact quality of life

Nursing diagnosis statements may fall into three categories: statement of a current problem, statement of being at risk for a problem, or statement related to health promotion (Herdman & Kamitsuru, 2018). Student needs and capability may limit the nursing diagnoses that can be addressed in a limited time frame such as a semester or school year. School nurses have unique opportunities to develop long-term relationships with students and families. These relationships may extend over several years. Student-centered nursing diagnoses may be developed, expanded upon, extended over time, and possibly resolved.

NASN DOES NOT support any specific taxonomy for development of the nursing diagnosis.

GOALS

The next step in the development of a student-centered plan of care is the development of a goal(s) in collaboration with the family and student, when developmentally appropriate. Developing student-centered goals parallels the outcomes identification step of the nursing process. Case management goals for students with chronic health conditions are designed for reaching optimal wellness and promote self-care and independence, as developmentally appropriate. The goal(s) define what the future or resolution of the health focus, identified in the nursing diagnosis, will be for the student. Goals provide direction for planning evidence-based interventions and serve as criteria for evaluating progress. Goals are broad and long-term (e.g., by the end of the school year the student will…) and should be written using the SMART format: (CDC, 2018): Specific, Measurable, Attainable, Realistic, Timely (or time limited). (Refer to Appendix A for examples.)

OUTCOMES

Outcomes, often referred to as *objectives*, are measurable behaviors and benchmarks with actionable steps that indicate progress toward meeting the goal or valued health state. There may be several outcome measures for each goal. Again, these should be written in the SMART format (CDC, 2018). Consider developing a standardized list of goals and/or outcomes for each chronic health condition to track over time. Selection of student-centered goals and outcomes serves as a strategy to demonstrate outcomes of SNLCM.

School nurses can think of goals as what they want the student's status to be over a period of time such as one year. Outcomes can be thought of as the measurable steps to achieving that goal.

STUDENTS WITH CHRONIC HEALTH CONDITIONS have the right to a free and appropriate public education (FAPE) protected under IDEA (2004) and Section 504 of the Rehabilitation Act of 1973. Well written student-centered goals and outcomes may be translated over to the student's IEP or Section 504 plan (as indicated according to the student's unique needs outlined in the IHP) to support nursing services and evaluation of a student's annual yearly progress.

EVIDENCE-BASED INTERVENTIONS

The nursing diagnosis and related goals and outcomes guide planning the evidence-based interventions or strategies for the IHP and ECP. The school nurse determines strategies and interventions supported by evidence to best meet the health needs of the student. The best available research, information, and resources, as well as student/family preferences, are used to support the school nurse's clinical decision making when planning interventions to help the student reach the identified outcomes and goals. School nurses should intentionally plan interventions which focus on the individual student's needs, not the student's diagnosis. For example, there is no such thing as an IHP for students with seizure disorders; there is only an IHP for an individual student with a diagnosis of seizures based on the student's unique health needs in the learning environment.

It is important to note that healthcare provider orders guide routine and emergency medical care provided at school. Planning how the healthcare provider orders are implemented at school requires the critical thinking of the school nurse, taking into consideration the synthesis of the nursing assessment, student and family preferences, and nuances of the learning environment.

The student-centered plan of care may also include evidence-based interventions not linked to healthcare provider orders. Examples of evidence-based interventions that reflect the independent practice of school nursing include:

- routine health screenings
- referral to other health services
- health maintenance and health promotion strategies
- health education
- anticipatory guidance
- motivational interviewing and counseling
- identifying and connecting to community resources
- school environment accommodations
- emergency and disaster contingencies (e.g., shelter-in-place, evacuation procedures)
- nursing delegation (when allowed by state law, rules, and regulations)
- behavior management program
- preparing for transition to adulthood

According to the *School Nursing: Scope and Standards of Practice* (ANA & NASN, 2017) the school nurse develops the IHP collaboratively with the student, parents/caregivers, health-care providers, school community, and others as appropriate and individualizes the plan specific to the student's needs to provide for continuity of care. The registered professional school nurse manages implementation and ongoing evaluation of the plan.

EVALUATION

Evaluation is a systematic, dynamic, and ongoing review of the student-centered plan of care, progress toward meeting the goal(s), successes and challenges of implementing the plan, and evaluation of student outcomes. When goals and outcomes are written in the SMART format (CDC, 2018), much of the evaluation plan is already in place. Evaluation planning should also include planning for ongoing evaluation of any delegated nursing tasks – evaluating both the delegatee and the student's health outcomes when nursing delegation is an intervention used to provide care. The cyclic nature of the nursing process is demonstrated as ongoing evaluation leads to the continued assessment of the student's health status, progress toward goals, and revision of the plan of care as indicated. As developmentally appropriate, the nurse helps the student monitor and modify the plan to promote its effectiveness. As goals are achieved, the nurse works with the student to develop new goals as needed or to decide the plan is no longer needed.

SECTION 3: AT-A-GLANCE

SCHOOL NURSE-LED CASE MANAGEMENT AT-A-GLANCE

The steps involved in SNLCM are summarized below (See Table 1 and Table 2). Note that the listed action steps are dynamic and cyclical. They likely will not progress in a linear manner. Refer to Appendix B for the referenced frameworks and models.

TABLE 1.

SCHOOL NURSE-LED CASE MANAGEMENT AT-A-GLANCE

CASE MANAGEMENT ACTION STEPS FOR THE SCHOOL NURSE TO SUPPORT STUDENTS WITH CHRONIC HEALTH CONDITIONS	
STEP 1	Identify, through case finding, Tier 3 students with a chronic health condition who would benefit from SNLCM (MTSS Model).
STEP 2	Identify considerations for prioritizing students to receive SNLCM.
STEP 3	Conduct and document a thorough nursing assessment for each identified student.
STEP 4	In collaboration with the student, family, and healthcare provider begin planning a student's IHP and ECP.
STEP 4A	Obtain consent to provide care per school or district policy and to exchange student health information. Obtain the healthcare provider orders needed for medical interventions.
STEP 4B	In collaboration with the student and family, synthesize assessment findings and interpret the healthcare provider orders to determine the student-centered focus of care (i.e., nursing diagnosis).
STEP 4C	In collaboration with the student and family, identify measurable (SMART format) long-term goal(s) and outcomes to help reach the goal(s).
STEP 4D	Plan evidence-based nursing interventions to implement in school and at school-sponsored events to reach the identified outcomes and goals.
STEP 5	Implement the student-centered plan of care.
STEP 5A	Request participation on educational planning teams (if applicable) when the health issue has potential to impact learning.
STEP 6	Step 6 and Ongoing: Provide supervision and evaluation to inform of changes needed in the student-centered plan of care including • student health outcomes and goals, measured progress over time and at conclusion of plan • delegated care • impact on other education plans (if applicable)

TABLE 2.

SCHOOL NURSE-LED CASE MANAGEMENT PROGRAM AT-A-GLANCE

CASE MANAGEMENT SCHOOL HEALTH SERVICES' PROGRAMMING TO SUPPORT STUDENTS WITH CHRONIC HEALTH CONDITIONS	
STEP 1	Step 1 & Ongoing: Describe and articulate the value of SNLCM for health and learning to key stakeholders, building a base of support for programming.
STEP 2	Identify key health and education data measures (local, state, national) using the 3S Model.
STEP 2A	Set up a process for collecting and recording the identified health and education data measures.
STEP 2B	Share year-end results with health and education stakeholders.
STEP 3	Identify strategies to sustain and/or expand SNLCM activities. For example • identify and take action to address policy gaps • identify personal professional development needs • explore community resources and funding opportunities • prepare messaging for key stakeholders (e.g., "stairwell/elevator speech")

SECTION 4: DATA DRIVEN

DEMONSTRATING DATA DRIVEN VALUE OF SCHOOL NURSE-LED CASE MANAGEMENT USING THE 3S MODEL

It is critical to identify sustainability strategies when building and sustaining a case management program. Identifying, collecting, categorizing, and reporting data systematically demonstrates the value of successful SNLCM to key stakeholders such as school administrators, school boards, and community partners. School nurse managers should know how when, and to whom to present the data.

Identifying, categorizing, and reporting data systematically in a way that presents useful information for SNLCM program development, improvement, and sustainability are essential. School nurse case managers should consider utilizing the 3S (Student-School Nurse-School Community) Model to identify and categorize data (Wolfe et al., 2019). The 3S Model – derived from Donabedian's Model of structure, process, and outcome – was developed as

a real-world guide for practicing school nurses to understand and accomplish school-specific data collection (Wolfe et al., 2019). (See Figure 2).

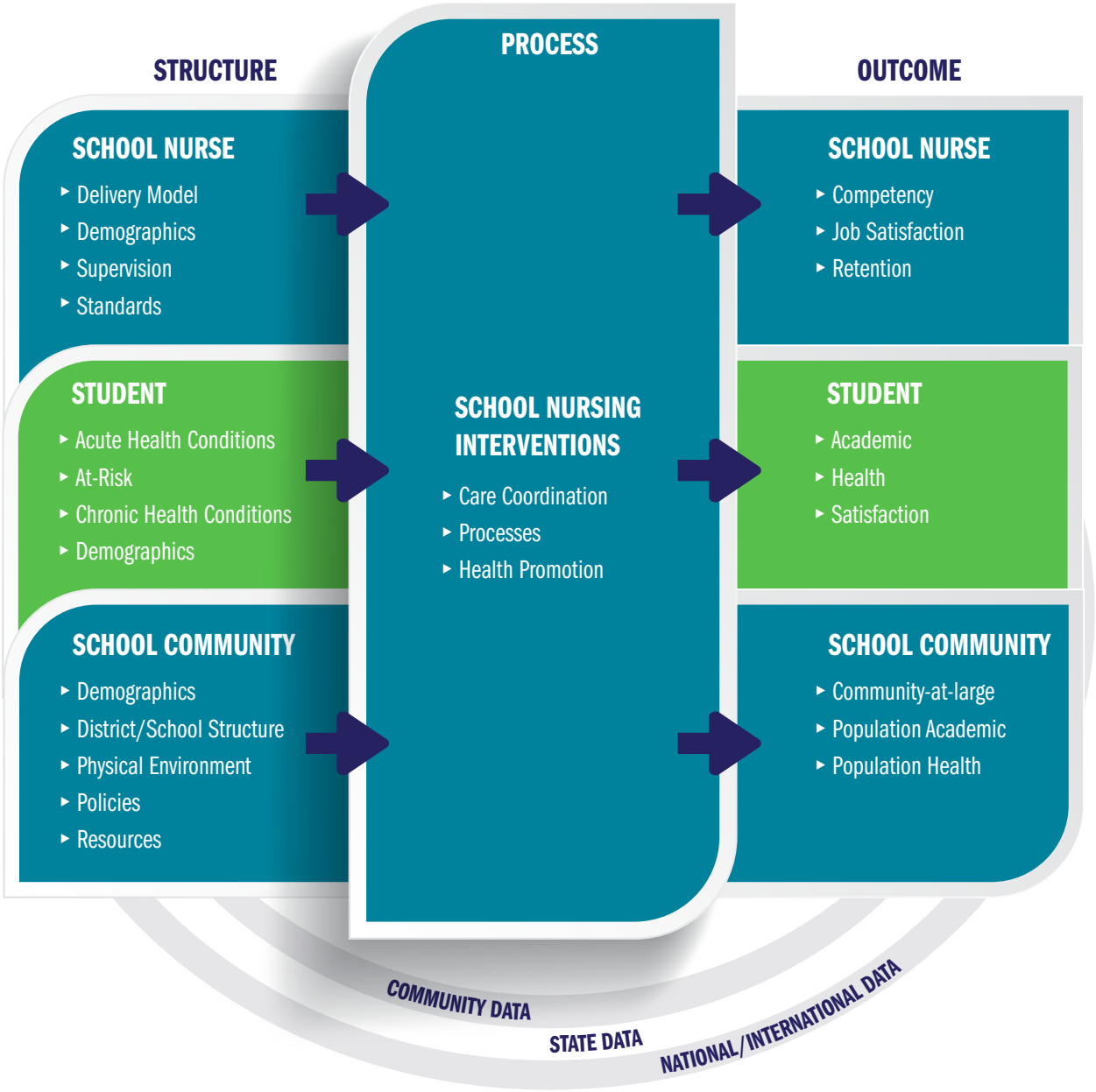


FIGURE 2 – 3S (Student-School Nurse-School Community) Model

Used with permission. Wolfe, L. C., Maughan, E. D., & Bergren, M. D. (2019). Introducing the 3S (student-school nurse-school community) model. *NASN School Nurse, 34*(1), 30-34. doi: 10.1177/1942602X18814233

Application of the 3S Model to case management includes these components:

- Structure measures are infrastructure and context focused data related to the School Nurse, Student, and the School Community and their capacity to provide care.
- Process measures are the methods by which SNLCM and nursing care are provided.
- Process measures are also focused on the timeliness, accuracy, appropriateness of the care provided, and whether or not obstacles or mishaps occurred during care delivery.
- Outcomes measures look at whether or not the desired state resulted from the care provided.

Examples of data that reflect case management are listed in Figure 3, organized by the 3S model. Individual schools and districts will collect data that are specific to the district and/or community needs and priorities. Data measures should align with *The National School Health Data Set: Every Student Counts!* (NASN, n.d.; Maughan, 2020). School nurses should continually evaluate whether or not data collected is useful and consider eliminating data points that are not being used.

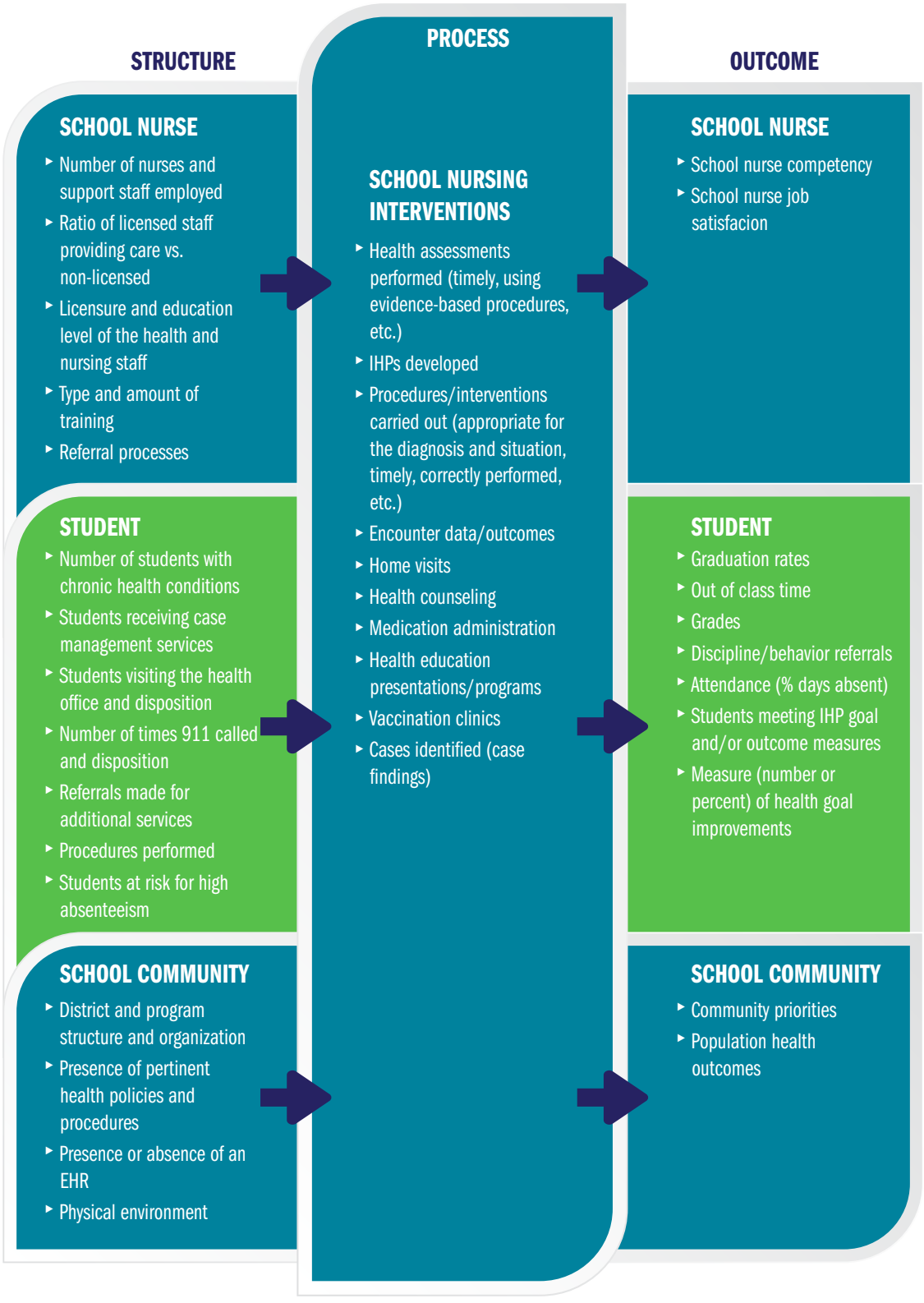


FIGURE 3 - School Nurse-Led Case Management Example Data Points Using the 3S Model

SOURCES OF DATA

Student-related data can be collected from or entered into existing documentation systems. The NASN position statement, *Electronic Health Records: An Essential Tool for School Nurses to Keep Students Healthy* (2019), holds that school nurses should have access to and utilize electronic health records as a documentation tool to manage student health data. Documentation in the student health record should be student-focused and not about the work of the nurse. It is imperative to use standardized nursing language and apply uniform data sets in documentation so that information can be readily retrieved to generate reliable reports.

REPORTING FINDINGS

Aggregated information on structure, process, and outcomes data (3S Model) is useful in understanding what is and what is not working. Adjustments can be made at the point in the process where there are gaps or deficits. Measures can be considered as a moment in time or over a period of time, depending on what is being reported. School nurses should know how, when, and to whom to present the data.

Qualitative data regarding case management success stories can be as impactful as statistics. Consider surveying parents/caregivers, teachers, and staff to elicit their perspective on SNLCM value and sharing that important information with school administration and community stakeholders (See Appendix A).

SEE NASN'S Tips for Data Use & Presentation Tips for Using Data

SUSTAINABILITY STRATEGIES

Data can demonstrate the value of SNLCM to help students achieve their optimal level of health and academic success and support program sustainability. Additional sustainability strategies include:

- anticipating barriers to success and preparing to address them
- identifying and addressing the social needs of students and families, and the social determinants of their community
- building partnerships with school and community stakeholders
- identifying and connecting with community resources to demonstrate how to reduce duplication of services and leverage resources

- participating in the development of policies, protocols, and procedures that support SNLCM – a strategy to put in place an equitable approach that can reach all students
- building on existing priorities of the school and community
- identifying the "winnable battles" starting small and building momentum for success
- being prepared to communicate how SNLCM is value-added to support schools to reach their education mission
- considering what messages would resonate with multiple stakeholders to bring and sustain this approach to the health and education success of students with chronic health conditions in school

SECTION 5: CASE STUDIES

APPLICATION TO PRACTICE

The following are two examples of how SNLCM can be applied in school nursing practice. Case Study 1 is an example of SNLCM being applied to a Tier 3 student with a known chronic health condition, and Case Study 2 is an example of the benefits of SNLCM for a Tier 2 student with suspected health issues that require accommodations to reduce barriers to health and learning. Use the sample tools and resources bolded or hyperlinked as needed to support your practice, whether using an electronic or paper format when organizing your care. (Refer to Appendix A and C)

CASE STUDY 1 – ISAIAH, A STUDENT WITH A NEW CHRONIC HEALTH CONDITION DIAGNOSIS

Isaiah is a 9-year-old boy living with his mother and 11-year-old sister in a small urban southwest town. Attendance tracking, completed by the school nurse in collaboration with the office secretary, reveals Isaiah was absent four days in the first month of school. This prompts the school nurse to consider if Isaiah would benefit from additional support

from the school team to mitigate chronic absenteeism, a known risk to academic success. The nurse adds Isaiah to the **Tracking Form**, according to school policy, and reaches out to Isaiah's mother to begin a nursing assessment.

The school nurse is very aware of the demographics of the school community, **nursing assessment** information relevant to Isaiah's overall well-being:

DEMOGRAPHICS: • 64% white Hispanic • 25% white • 2% black • 5% American Indian • 4% Other	ECONOMICS: • The median household income for the town is $25,000. • 35% of the residents live below the poverty level. • 44% of the children live below the poverty level. • 100% of the children in the elementary school are on free and reduced lunch. • 49% of the community is enrolled in Medicaid.
48% of residents speak English at home.	The town is 95% urban.
55% of households have a broadband internet subscription.	There is limited public transportation.
There is a community hospital in town – the next closest hospital is 50 miles away.	The predominant employer is from retail.

(Sample data sources: City Health Dashboard; U.S. Census Bureau)

The nursing assessment continues with information gathered during the phone conversation with Isaiah's mother. The main reason for not coming to school according to his mother has been an irritating cough that keeps him up at night – so he is too tired to go to school. The mother reported going to the emergency room one evening after work. She was told Isaiah probably has asthma and was given a sample Albuterol inhaler, and instructions to see a primary care provider – which has not happened yet due to the mother's work schedule and the family's lack of health insurance.

The school nurse also learns a bit about Isaiah's family:

- Isaiah's mother has led the household alone for the past three years; she has a high school diploma; and she works full time at a family-run breakfast/lunch diner.
- They live in a three-bedroom home in an older neighborhood.

The school nurse documents this call on the **Case Note** and identifies the following priority action steps:

- Provide Isaiah's mother with the contact information for community healthcare providers (HCP) – from the community resource list kept by the school nurse.
- Remove barriers for Isaiah to be seen by the HCP (e.g., help making the appointment that accommodates the mother's work schedule, arrange for transportation).
- Begin the process of connecting the family to health insurance coverage.
- Using the case finding information, identify that Isaiah does qualify for Tier 3 SNLCM.

After the HCP visit, obtain permission for information exchange to support the implementation of the medical plan of care at home and school, update the **Tracking Form**, and continue to expand the **nursing assessment**.

The school nurse critically analyzes the assessment data – a first step in developing Isaiah's IHP. The North Carolina *Case Management Summary for School Nurses* is one example of a tool to help synthesize assessment data and guide next steps for case management. These are some questions to consider when doing this analysis:

1. What Social Determinants of Health have a potential impact on the health of Isaiah and his family?
2. What social needs – for Isaiah and/or his family – warrant further assessment by the school nurse?
3. What would be the top three activities for the school nurse as Isaiah returns to school after seeing a new HCP?
4. What would be the focus for care at school (e.g., nursing diagnosis)?
5. Does Isaiah and his mother agree with this focus of care?
6. What are the priority evidence-based nursing interventions needed to support the health and academic success for Isaiah (NAEPP, SAMPRO™, NEEF)?
7. Did the HCP provide an emergency action plan (AAP) (AAAAI)? Is an ECP also needed?

Review the sample IHP for one nursing diagnosis/health focus for Isaiah. What additional nursing diagnoses would be important for Isaiah, and related outcomes and interventions?

ADDITIONAL CONSIDERATIONS

- How often would you plan to evaluate Isaiah's progress toward meeting the outcomes and goal for each nursing diagnosis in his IHP?
- How would you decide if outcomes and interventions would need to be modified?
- What data would be important to collect to demonstrate 1) health outcomes, 2) academic outcomes, and 3) the value you bring to supporting student health and academic success?

CASE STUDY 2 – JERRY, A STUDENT WITH AN UNDIAGNOSED CHRONIC HEALTH CONDITION

Jerry is a 15-year-old girl living with her parents and 10-year-old twin brothers in a small urban midwest town. Two of Jerry's teachers visit the school nurse concerned about Jerry's sudden change of behavior. Jerry has been a good student since grade school and – up until the past few weeks – has been active on the school soccer team, and drama club. The teachers indicate that Jerry has started complaining of fatigue and has asked to quit the soccer team! This is not like her at all (case find data source).

The school nurse checks the attendance reports and notices that Jerry has started being absent for three or four days at a time (case find data source). The school nurse outreach to Jerry's mother indicates that about a month ago Jerry had the flu but has not been able to "bounce back" from it. She is sluggish and exhausted all of the time. The school nurse asks additional questions and learns that symptoms came on suddenly, and this has never happened in the past. There does not seem to be any pattern to the illness either. Jerry's mother has noticed that Jerry has started to exhibit signs of stress, and she wonders if maybe it is anxiety, as Jerry has always been an overachiever and this illness has put her behind. However, no clear pattern of what trigger the anxiety is found. The school nurse then asks how they could support Jerry and her family. Her mother says she doesn't know right now. They take her to her primary care provider who examines her, but everything appears normal and does not feel it is caused by anxiety. The provider suggests the flu may just be lingering.

CONSIDER THIS QUESTION: Would Jerry benefit from SNLCM?

> *Due to the circumstances of an undiagnosed health concern and chronic absenteeism, but strong family support and no social issue, the school nurse will monitor Jerry, but not begin SNLCM.*

Two months have passed, and Jerry continues to be very tired and frequently absent. She has fallen farther behind in her classes. She often complains of feeling dizzy. Jerry's mother took her to another provider, but the provider could not find anything wrong with Jerry. As a result, Jerry's parents are really frustrated. Jerry is getting farther behind in school and they worry she will not get into college.

CONSIDER THIS QUESTION: Would Jerry benefit from SLCM now?

> *Yes, she would, due to the amount of school missed for a long period of time, increased health concerns, and lack of diagnosis.*

The school nurse adds Jerry to the **Tracking Form**, per school policy. The school nurse reaches again out to Jerry and her parents, to conduct a more thorough **nursing assessment**.

The school nurse learns that the symptoms of dizziness and tiredness continue not to have any type of pattern or trigger. There are days Jerry just lies on the ground. Other days she feels better, but it may only last a few hours. The symptoms persist on the weekends and holidays. The school nurse suspects that Jerry may be suffering from myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) (see the NASN ***School Nurse-Led Active Surveillance Manual*** for additional questions related to ME/CFS). Jerry has many of the classic symptoms. The school nurse provides a **fact sheet** developed by the Centers for Disease Control and Prevention (CDC) to the family and suggests that they contact their primary provider to discuss this option and/or provide the family with the name of a specialist who addresses ME/CFS. The nurse should be clear they are not diagnosing nor endorsing any particular provider. The school nurse learns the family does not have other social needs such as food or health insurance. The school nurse suggests the family also talk with the family's insurance provider to help them navigate seeing a specialist.

Jerry's mother expresses thanks but also concern as to what to say to their provider. The school nurse offers to speak with the healthcare provider to explain observations; and even if the condition is not ME/CFS, the school nurse could provide other appropriate information based on the symptoms and concern.

The school nurse also knows that ME/CFS requires symptoms to be present for six months. This means several more months before Jerry could be officially diagnosed, if ME/CFS is the cause. The symptoms are treated as they arise, and since there is no particular policy in the district, individual health plans are not written. However, the district policy does allow for an accommodation to be developed due to the severity and length of symptoms.

The school nurse documents the call on the **Case Note** and provides the following priority steps:

- Contact the school guidance counselor and other key personnel to create an accommodation plan with a modified schedule and other possibilities related to academics.
- Assist Jerry's parents in keeping a diary of symptoms and other information to help parents and school document Jerry's symptoms.
- Provide CDC fact sheets to Jerry's parents, healthcare provider, and teachers (after obtaining Jerry's and her parents' permission).

The school nurse works with Jerry's parents, teachers, and the school guidance counselor to create an **accommodation plan**. The accommodation plan will allow for a modified schedule with the goal of supporting Jerry's health needs while successfully completing her grade. The plan assists everyone working together to support Jerry in her health and academics. Due to the dynamic and emerging state of Jerry's situation, the accommodation plan will be evaluated at the end of the semester, instead of the school year.

Additional considerations

- How often would you follow up with Jerry and her family related to health issues? Social issues?
- What data would be important to collect to demonstrate 1) health outcomes, 2) academic outcomes, and 3) the value you bring to supporting student health and academic success?
- How can you assess if Jerry feels supported and empowered during this difficult time?

SECTION 6: STATE CONSIDERATIONS

STATE CONSIDERATIONS FOR SCHOOL NURSE-LED CASE MANAGEMENT

This manual describes SNLCM and its benefits for students from a national perspective. Guidance in this manual needs to be considered in light of state health and education laws, rules, and regulations – including state nurse practice acts. Consideration of state-specific school health services initiatives such as the state data champion for NASN's *National School Health Data Set: Every Student Counts!,* state school health data workgroups, state school nursing resources (e.g., school health services manual), and guidance from state departments of health and/or education can also help align efforts to implement SNLCM (NASN, n.d.; Maughan, 2020).

Key state school nurse leaders to consult with include the state school nurse consultant, leadership in the state school nurse organization, and the state NASN Board Director. Consider inviting them to provide professional development focused on state-specific guidance for SNLCM.

APPENDIX A:
SUPPORTING TOOLS AND RESOURCES

SNLCM APPLICATION TO PRACTICE

STUDENT-CENTERED CARE PLANS

- Writing SMART Objectives
- School Nursing Assessment Checklist for Students with Special Health Care Needs in Selekman et al. (2019). *School Nursing: A Compressive Text*
- NASN's *Use of Individualized Healthcare Plans to Support School Health Services* (Position Statement)
- SNLCM Nursing Assessment Template
- NASN's IHP Template
- NASN's ECP Template
- SNLCM Undiagnosed Condition Accommodation Plan Template
- Department of Education, Parent and Educator Resource Guide to Section 504 in Public Elementary and Secondary Schools

FORMS

- Case Note
- Chronic Condition Tracking Form
- Sample Parent & Teacher Survey

NORTH CAROLINA, PUBLIC HEALTH

- Case Management Summary for School Nurses
- School Nursing Chronic: Conditions Case Management

EVIDENCE-BASED EMERGENCY ACTION PLANS:

- American Academy of Allergy, Asthma and Immunology - Asthma Action Plan
- American Academy of Pediatrics - Asthma Action Plan for Children 6 Years and Older
- Epilepsy Foundation – Seizure Action Plan – Responding to Seizures
- American Academy of Pediatrics, Allergy and Anaphylaxis Emergency Plan
- American Diabetes Association, NIDDK's Helping the Student with Diabetes Succeed, Hypoglycemia and Hyperglycemia Emergency Care Plans

EVIDENCE-BASED INTERVENTIONS

- CDC, Myalgic Encephalomyelitis/Chronic Fatigue Syndrome
- National Asthma Education and Prevention Program (NAEPP)
- School-Based Asthma Management Program (SAMPRO™)
- National Environmental Education Foundation (NEEF)

NASN'S TOOLKIT *IMPROVING CARE COORDINATION FOR STUDENTS WITH CHRONIC HEALTH CONDITIONS*

- Fact Sheet – Student Plans to Support Health and Academic Success
- Fact Sheet – School Nurse-Led Care Coordination for Students with Chronic Health Conditions
- Fact Sheet – Identification of Students with Chronic Health Conditions That Require School Health Services
- Fact Sheet – Members of the Student's Circle of Support
- Fact Sheet – Sharing Student Health Information
- Fact Sheet – Nursing Delegation Requires the School Nurse
- Fact Sheet – Transition Planning for Students with Chronic Health Conditions
- Fact Sheet – Roles and Responsibilities of Key Stakeholders
- School Health Services Visit Notification - Sample Communication Between School and Home
- Sample School Nurse Welcome Letter to Families
- Sample Authorization for Medication Administration and/or Treatment at School
- Sample FERPA/HIPA Consent
- Tiered Training Model for Teachers and School Personnel
- Managing Chronic Health Conditions in Schools – Model School Wellness Policy Supplement

DATA RESOURCES

NASN RESOURCES

- Tips for Data Use
- Presentation Tips for Using Data
- Find your state data champion - National School Health Data Set – Every Student Counts!

- Maughan, E.D. (2019). Breaking the glass cage – The power of data, courage, and voice. *NASN School Nurse, 34*(2), 95-99. doi: 10.1177/1942602X18815444

OTHER RESOURCES

- City Health Dashboard
- U.S. Census Bureau)
- Adverse Childhood Experiences
- Social Determinants of Health

SUPPORTING FRAMEWORKS

- The Whole School, Whole Community, Whole Child Model
- The NASN Framework for 21st Century School Nursing PracticeTM
- Tiers of Student Support/Levels of Prevention

FIND YOUR...

- NASN Board Director
- State Nurse Practice Act
- State School Nurse Consultant
- State School Nurse Organization

ADDITIONAL NASN RESOURCES

- The School Nurse-Led Active Surveillance Manual
- School Nurses Assess and Address Social Determinants
- Home and Community Factors that Impact Health and Learning Per 100 U.S. Students

APPENDIX B:
SUPPORTING FRAMEWORKS

SNLCM is built upon foundational school health, school nursing, and educational frameworks. The tenets within these frameworks provide conceptual support and practical guidance central to best practices in SNLCM.

THE WHOLE SCHOOL, WHOLE COMMUNITY, WHOLE CHILD MODEL

The traditional coordinated school health approach has been a mainstay in school health since 1987 but has been viewed by educators as primarily a health initiative (Marx & Wooley, 1998). In 2012, the CDC and the Association of Supervision and Curriculum Development (ASCD) began work to more fully engage both education and health to support positive health and academic outcomes for students. The WSCC model is child-centered and surrounded by ten school health components needed for the health, safety, and well-being of students, staff, and environment. The model emphasizes the alignment, integration, and collaboration needed among the school, health, and community sectors to improve each child's learning and health. The WSCC model, embraced by both health and education leaders, is built upon the understanding that health and education are interconnected and affect individuals, the economy, and the whole of society (ASCD & CDC, 2014).

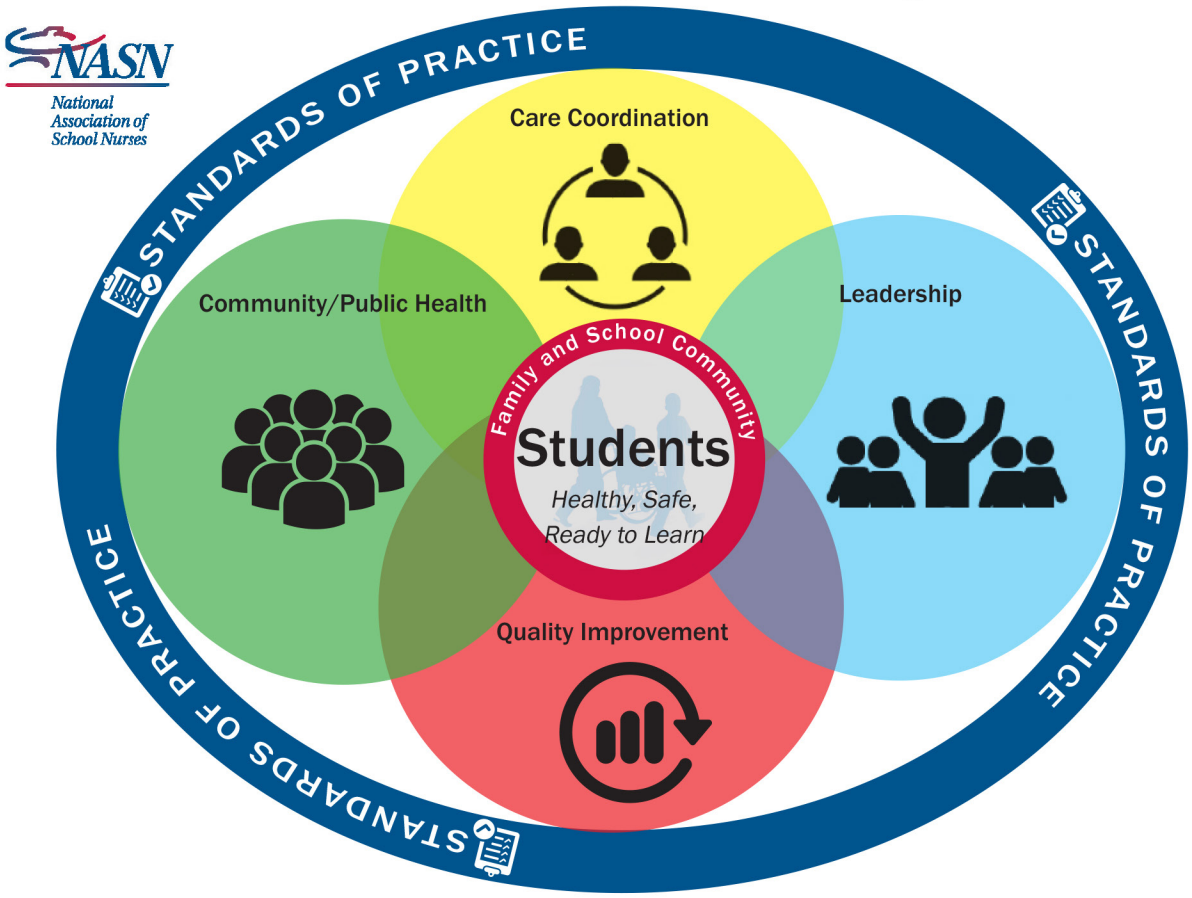
FIGURE 4 – Whole School, Whole Community, Whole Child Model

THE NASN *FRAMEWORK FOR 21ST CENTURY SCHOOL NURSING PRACTICE*™

The NASN *Framework* has five nonhierarchical principles which provide guidance for the specialty practice of school nursing (NASN, 2016b). The Care Coordination principle of the *Framework* provides an umbrella for related practice components that highlight actions and activities, including the activity of case management (NASN, 2020b). Case management is one of the practice components that exemplify the Care Coordination principle. All twelve practice components of the Care Coordination principle guide school nurses in contributing to student health and learning.

The NASN *Framework,* together with the WSCC model, is student-centered and aligned with a collaborative approach supporting both health and academic success of students (NASN, 2016b; ASCD & CDC, 2014). While the NASN *Framework* directly impacts the health services component of the WSCC model, SNLCM employs strategies impacting all of the ten components of the model.

Framework for 21st Century School Nursing Practice™



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Standards of Practice

- Clinical Competence
- Clinical Guidelines
- Code of Ethics
- Critical Thinking
- Evidence-based Practice
- NASN Position Statements
- Nurse Practice Acts
- Scope and Standards of Practice

Care Coordination

- Case Management
- Chronic Disease Management
- Collaborative Communication
- Direct Care
- Education
- Interdisciplinary Teams
- Motivational Interviewing/ Counseling
- Nursing Delegation
- Student Care Plans
- Student-centered Care
- Student Self-empowerment
- Transition Planning

Leadership

- Advocacy
- Change Agents
- Education Reform
- Funding and Reimbursement
- Healthcare Reform
- Lifelong Learner
- Models of Practice
- Technology
- Policy Development and Implementation
- Professionalism
- Systems-level Leadership

Quality Improvement

- Continuous Quality Improvement
- Documentation/Data Collection
- Evaluation
- Meaningful Health/ Academic Outcomes
- Performance Appraisal
- Research
- Uniform Data Set

Community/ Public Health

- Access to Care
- Cultural Competency
- Disease Prevention
- Environmental Health
- Health Education
- Health Equity
- Healthy People 2020
- Health Promotion
- Outreach
- Population-based Care
- Risk Reduction
- Screenings/Referral/ Follow-up
- Social Determinants of Health
- Surveillance

Figure 5 – *Framework for 21st Century School Nursing Practice™*

SCHOOL NURSING STANDARDS OF PRACTICE AND THE NURSING PROCESS

In the practice of SNLCM, the professional registered nurse serves in a pivotal role that bridges health care and education. SNLCM is supported by all of the six *Standards of Practice for School Nursing*, particularly standard 5A, Coordination of Care; while the *Standards of Professional Performance for School Nursing* support competent level behavior of the school nurse role as case manager, particularly the standards that address communication, collaboration, leadership, quality of practice, and program management (ANA & NASN, 2017). The *Standards of Practice for School Nursing* reflect the critical thinking model of the nursing process. The nursing process components are the standards by which the nurse determines the status and existing needs of a population or client, and then plans and takes action to address those needs. SNLCM is an example of high-level application of both the standards of practice and the nursing process.

MULTI-TIERED SYSTEM OF SUPPORTS

Multi-Tiered System of Supports (MTSS) is a framework that helps educators identify struggling students and provide academic and behavioral supports based on student needs (PBIS Rewards, 2020). In a three-tiered MTSS approach, the model is comprised of three tiers of support (Figure 6). Tier 1 supports are the core supports that all students receive. In terms of health services, access to a school nurse who performs population health screening and implements a health services program is an example of Tier 1 support. Tier 2 supports are supplemental supports that some students receive. In the health services arena, Tier 2 supports might include medication administration or nurse-administered treatments. Tier 3 supports are intensive and are targeted to the neediest students. Case management, as it is discussed in this manual, is predominantly Tier 3 (i.e., intensive case management). MTSS was developed by integrating two previously existing intervention-based frameworks applied by educators: Response to Intervention (RTI) and Positive Behavioral Interventions and Supports (PBIS) (PBIS Rewards, 2020).

MTSS grew out of the public health model of primary, secondary, and tertiary prevention. Primary prevention aims to prevent disease or injury before it occurs. This is done by preventing exposures to hazards that cause disease or injury, altering unhealthy or unsafe behaviors that can lead to disease or injury, and increasing resistance to disease or injury should exposure occur.

Secondary prevention aims to reduce the impact of a disease or injury that has already occurred. This is done by detecting and treating disease or injury as soon as possible to

halt or slow its progress, encouraging personal strategies to prevent reinjury or recurrence, and implementing programs to return people to their original health and function to prevent long-term problems.

Tertiary prevention aims to soften the impact of an ongoing illness or injury that has lasting effects. This is done by helping people manage long-term, often-complex health problems and injuries (e.g., chronic diseases, permanent impairments) to improve as much as possible their ability to function, their quality of life, and their life expectancy. Tertiary prevention interventions are essentially forms of treatment aimed to prevent worsening conditions and the emergence of secondary problems (Substance Abuse Mental Health Services Administration [SAMHSA], n.d.).

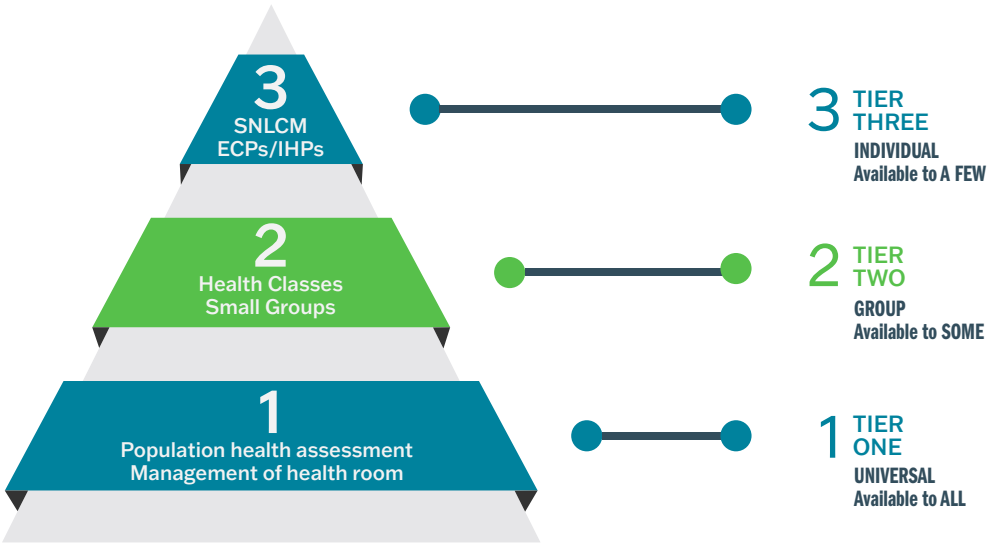

Figure 6 – Multi-Tiered System of Support

APPENDIX C:
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