Adolescents as a group are generally healthy. However, the majority of youth and young adults will, at some time, engage in behaviors that can lead to serious negative health consequences. (See Chapter 2.) The socioecological model of health used by this Task Force recognizes the contributions of families, communities and schools, and policy to adolescent health. (See Chapter 1.) Within this context, the Task Force reviewed and discussed the contributions of health care strategies to improving adolescent health.

Regular preventive check-ups and counseling in health care settings can help ensure that all adolescents develop patterns of behavior that will favorably influence lifelong trajectories of health and can provide unique opportunities for early diagnosis and intervention when problems emerge. Furthermore, there are substantial numbers of adolescents who have chronic health conditions or disabilities. Eighteen percent of adolescents in North Carolina between ages 12 and 18 years have a chronic physical, developmental, behavioral, or emotional condition that requires health and related services beyond that required by children generally. The most prevalent diagnoses include allergies, asthma, attention deficit disorders (ADD/ADHD), anxiety or depression, and headaches. Health conditions such as seizure disorders, cerebral palsy, autism, diabetes, cystic fibrosis, Downs Syndrome, and heart and blood problems (e.g. sickle cell disease, congenital heart disease) are much less common.[1] Adolescents with acute illness, chronic conditions, or disabilities need high-quality health care for these conditions.

Health care professionals play an important role in promoting adolescent health.

Adolescent Health Care Services

What is High-quality Primary Care?

Health care professionals play an important role in promoting adolescent health. All adolescents need access to high-quality preventive services, screening, and anticipatory guidance. In addition, children who are ill or those with special health conditions need health services that address their specific health needs. Over the past 15 years, a model for comprehensive high quality adolescent health services has emerged. This model is structured around periodic routine visits with primary care health providers for all adolescents ages 11-21 years. It recognizes the extent to which adolescents change year-to-year, the wide variation in normal development during the second decade of life, and the role of health care professionals in both preventing and addressing health problems in this age group. The need for regular periodic visits has been endorsed by different health professional associations, governmental bodies, and accrediting organizations including the American Medical Association (AMA), American Academy of Pediatrics (AAP), Health Resources and Services Administration and the Maternal and Child Health Bureau of the US Department of Health and Human Services, American Academy of Family Physicians (AAFP), US Preventive Services Task Force (USPSTF), and National Committee for Quality

Assurance (NCQA).[a] Over the past two decades, a consensus has emerged among the AMA, AAP, MCHB, and NCQA that periodic routine adolescent health visits should occur on an **annual** basis; the AAFP and USPSTF do not make a specific recommendation about frequency.

Recommendations vary about the specific components and content of a comprehensive wellness visit, but components endorsed by multiple organizations/agencies including the Centers for Disease Control and Prevention (CDC) are listed below:[2-8]

Regular preventive check-ups and counseling in health care settings can help ensure that all adolescents develop patterns of behavior that will favorably influence lifelong trajectories of health and can provide unique opportunities for early diagnosis and intervention when problems emerge.

- Medical history (AAP, AMA, NCQA)
- Psycho-social-behavioral history (AAP, AMA, NCQA), including information about:
  - home environments (AAP, AMA)
  - family connectedness (AAP, AMA)
  - school connectedness and academic performance (AAP, AMA)
  - jobs, hobbies, and activities outside of school (AAP, AMA)
  - eating and physical activity habits (AAP, AMA, NCQA)
  - tobacco, alcohol, and other substance use (AAP, AMA, NCQA)
  - sexual development and behaviors (AAP, AMA, NCQA, AAFP, USPSTF)
  - emotional health (AAP, AMA, USPSTF)
  - behaviors that reduce risk of injury (AAP, AMA, AAFP)
- Physical examination, including height, weight, and body mass index (AAP, AMA, NCQA)
- Laboratory tests:
  - Screen for chlamydia in all females who have had sex (AAP, AMA, CDC, NCQA, AAFP, USPSTF)
  - Screen for gonorrhea in all females who have had sex (AAP, AMA, AAFP, CDC, USPSTF)
  - Cervical cytology in all females three years after first sexual intercourse (AAP, AMA, AAFP, USPSTF)
  - HIV and syphilis screening among males and females at increased risk (AAP, AMA, CDC, USPSTF)

a NCQA measures the extent to which adolescents ages 12-21 years receive an annual well-care visit with a primary care provider or OB/GYN as part of its Healthcare Effectiveness Data and Information Set (HEDIS).

- Immunizations if indicated (AAP, AMA, NCQA, AAFP, CDC, USPSTF)
- Tailored developmentally-appropriate counseling/anticipatory guidance (AAP, AMA, NCQA)
- Specific counseling to reduce STDs if at risk (AAP, AMA, AAFP, CDC, USPSTF)

There is less consensus among professional organizations regarding other components of wellness visits, such as the guidelines for screening adolescents for high cholesterol or diabetes.

The specific types of issues discussed, content of discussions, level of parental involvement, and the type of counseling provided during adolescent health visits should be tailored to individual patients and is influenced by the developmental stage of the adolescent patient. The specific content of a routine visit for an 11-year-old adolescent would be expected to be quite different than that of a 19-year-old adolescent.[4,5,9]

In summary, there is current consensus that high quality adolescent health care includes an annual routine health visit for all adolescents between ages 11-21 years. For this to have an impact on adolescent health, adolescents who seek health care services for routine care or for specific health conditions need to receive evidence-based high quality health care. Those who present for routine health care need to receive a package of services consistent with current recommendations of the AAP, AMA, CDC, NCQA, AAFP, and USPSTF.

Utilization of Adolescent Health Care Services

The National Research Council and National Institute of Medicine recently released an extensive review of adolescent health and health services, entitled "Adolescent Health Services: Missing Opportunities."[10] The review noted that most adolescents have a usual source of medical care, however, the settings where adolescents receive these services vary. Among adolescents who have a usual source of care, the majority (approximately 77%) rely on a doctor's clinic or managed care organization, while a little over 20% rely on a clinic or health center. Very small proportions rely on school-based health centers, emergency departments, or family planning centers as their usual source of care. This review also reports that most adolescents see a health care provider annually, although annual visits to health care providers decline as adolescents grow older (particularly among boys).[10]

In North Carolina, 55% of adolescents have a medical home based on parental report (data indicating where this medical home is located are not available). Parents report that more than 75% of adolescents had a preventive medical visit in the previous 12 months.[11] However, reports from adolescents differ from that of parents. In 2007, only 52% of middle school students and 60% of high school students in North Carolina reported a routine health care visit in the previous year.[12]

Improving Quality of Adolescent Health Care

When adolescents are seen for routine health care, many health care providers fail to adhere to recommended prevention guidelines, to screen for appropriate risk factors and unhealthful behaviors that emerge during adolescence, and to provide effective counseling that could reduce risks and foster health promotion. National data show a large gap between the services that are recommended and the actual services most adolescents receive. For example, one population-based study found that only 34% of adolescents received recommended preventive health services.[13] Results from the 2007 National Immunization Survey showed that no more than one-third of adolescents had received vaccines that had been recommended by the Advisory Committee for Immunization Practices.[b,14] And few adolescents receive appropriate screening for sexually transmitted diseases. In 2007, only 42% of sexually active females ages 15-25 years in commercial and Medicaid health plans received annual screening for chlamydia infection, although such testing is recommended by AAP, AMA, NCQA, AAFP, and USPSTF.[15]

National data show a large gap between the services that are recommended and the actual services most adolescents receive.

While some North Carolina data show that most adolescents received preventive visits in the last year, there is a lack of state-level data to measure the quality of routine adolescent health services delivered in clinical settings. One of the few measures available—the adolescent immunization rate—suggests that North Carolina adolescents receive less comprehensive care in the clinical setting than the nation. North Carolina has lower rates of adolescent vaccination than nationally, particularly for tetanus, diphtheria, acellular pertussis (Tdap) booster vaccine (1 dose), and the meningococcal conjugate vaccine (MCV4) (1 dose).[16] (See Table 4.1.) North Carolina is performing at about the national average for the quadrivalent human papillomavirus vaccine for girls (HPV4; 3 doses).

Other state-specific information about the quality of clinical visits is not available. However, there are other regional data that suggest that adolescents

Table 4.1
North Carolina Adolescents Less Likely to Have Received Recommended Immunizations

Vaccine Type	US	NC
≥ 1 Tdap	41%	28%
≥ 1 MCV4	42%	31%
≥ 1 HPV4	37%	34%

Source: Centers for Disease Control and Prevention, US Department of Health and Human Services. National Immunization Survey—Teens (13 Through 17 Years Old). http://www.cdc.gov/vaccines/stats-surv/nis/nis-2008-released.htm#nisteen. Published September 17, 2009. Accessed September 21, 2009.

b Thirty percent had received the tetanus, diphtheria, acellular pertussis vaccine; 32% had received meningococcal conjugate vaccine; and 25% had initiated the quadravalent human papillomavirus vaccine series.

in the South receive lower quality services, at least as it relates to the screening for chlamydia infections among sexually active adolescent and young adult females. Data show that the screening rates are lower in the South than in other regions of the United States.[15,17] This is of particular concern because rates of chlamydia infection among adolescents and young adults in the South, including North Carolina, are among the highest in the United States.[18]

To improve the quality of health services provided to adolescents, expectations for the content of a standard routine adolescent preventive health care visit needs to be explicitly clear to health care providers, and these services need to be covered by insurers. One barrier to this has been the lack of specific details about the expected preventive health services for adolescents in the NC Medicaid Health Check Program, which provides guidelines for Early Periodic Screening, Diagnosis, and Treatment (EPSDT) visits and Medicaid reimbursement for children under age 21. To overcome this barrier, the NC Division of Medical Assistance (DMA), Division of Public Health (DPH), and several North Carolina health care providers have been working on a new Medicaid policy called the Adolescent Health Check Screening Assessment. The proposed policy provides specific guidance for the expected content of annual routine adolescent health visits including: a comprehensive health history, measurements, vision/hearing risk assessment, dental screen, laboratory tests as clinically indicated (e.g. STD/HIV, dyslipidemia, pregnancy test, etc.), nutrition assessment, health risk screen and developmentally-appropriate psychosocial/behavioral & alcohol/drug use assessments, physical exam, immunizations, anticipatory guidance, and follow-up/referral. For female adolescents receiving a preventive health check screen that includes a family planning component the Extended Adolescent Health Check Screening Assessment should be a billing option. The proposed policy also provides guidance about billing and links to the evidence-based recommendations upon which the preventive health services are based. The proposed policy is currently in final review at DMA, and decisions on exact content and reimbursement are being discussed.

To improve the quality of health services provided to adolescents, expectations for the content of a standard routine adolescent preventive health care visit needs to be explicitly clear to health care providers, and these services need to be covered by insurers.

As expectations for the content of evidence-based high-quality routine annual adolescent health visits become clear, there will be a need to assist providers in various clinical settings to learn how to deliver this care in a time-efficient and effective manner. This will require a multifaceted approach that should include education of clinical and administrative staff about new expectations for routine adolescent health care; continuing medical education for many clinicians around specific adolescent health topics; incorporation of new practice tools into clinical settings; technical assistance related to new billing procedures; and strategies to reach adolescents and their parents to encourage routine use of adolescent preventive health services.

Clinicians may also need to learn new skills in order to deliver high-quality routine health care to adolescents with chronic conditions or disabilities. All adolescents need the counseling, anticipatory guidance and preventive services

offered during routine comprehensive health care, including but not limited to such topics as nutrition, physical activity, sexuality, pregnancy prevention, mental health, tobacco use, and alcohol and substance use. However, children with special health needs or disabilities may face unique issues. All discussions with adolescents need to be tailored to the individual young person's specific resources and needs which are influenced by their social support system, abilities, and physical and mental health conditions. For example, adolescents with cognitive limitations may need very direct, matter-of-fact, concrete discussion about puberty, menstruation, and sexuality as well as concrete demonstrations or role-playing to learn skills to refuse unwanted sexual attention or invitations to use alcohol or other drugs. Adolescents in wheelchairs need to have counseling about the importance of maintaining a healthy weight that is tailored to their capacity for physical activity. Adolescents who have chronic conditions that will be adversely affected by tobacco use (e.g. asthma, cystic fibrosis), pregnancy (e.g. conditions where pregnancy would result in major deterioration in health or increase chance of death), or intoxication with alcohol or drugs (e.g. insulin-dependent diabetes) need counseling about these behaviors that take into consideration unique risks.

High-quality routine adolescent health care should prepare all adolescents for their transition to adulthood.

Finally, high-quality routine adolescent health care should prepare all adolescents for their transition to adulthood. Young people must work on general transition competencies as early as developmentally appropriate, which may include learning about their medical history;understanding their potential for physical and mental health risks or conditions; learning how to negotiate health care systems; self-advocacy for their needs ; and increasing responsibility for meeting their own routine and condition-specific health care needs as they enter adulthood. Adolescents with chronic conditions or disabilities need to learn, to the extent possible, how to manage their own medication, recognize and appropriately respond to warning signs for problems specific to their unique condition, take care of their own health needs independent of their parents or other caregivers, and maintain complete medical records and portable medical summaries. All adolescents need guidance on how to successfully transition to an adult health care system, which typically operates under the assumption that patients have strong self-management skills. This transition may be particularly challenging for adolescents with complex and chronic health care needs and disabilities. These adolescents with complex and chronic health care needs should work with their medical provider to develop a written transition plan. This transition plan should guide them through a process to assure ongoing insurance coverage, coordinate needed health services, and access adult health care providers.

Improving Performance in Practice (IPIP) is an innovative quality improvement (QI) model that has demonstrated quality improvement for chronic care in practices. The model involves quality improvement consultants who work closely with practices to help them identify strategies to improve quality of care for chronic conditions. Strategies differ across practices, but the ultimate goal

is to help clinicians learn how to conduct their own QI. This QI model could be applied to practices caring for adolescents to improve the quality of adolescent care. In North Carolina, IPIP has been implemented by a partnership with many organizations, including CCNC, DPH, and specialty societies like the North Carolina Academy of Family Practice. It has been folded into the North Carolina Healthcare Quality Alliance and currently is housed in the NC AHEC. Such a collaborative model could be effective in improving care for adolescents.

In recognition of the need to improve the quality of health care delivered to adolescents in North Carolina, the Task Force recommends:

Recommendation 4.1: Cover and Improve Annual High-Quality Well Visits for Adolescents up to Age 20

a) The Division of Medical Assistance (DMA) should:

1) Implement the DMA Adolescent Health Check Screening Assessment policy.

2) Review and update the DMA Adolescent Health Check Screening Assessment policy at least once every five years.

b) Other public and private health insurers, including the State Health Plan, should cover annual well visits for adolescents that meet the quality of care guidelines of the US Preventive Services Task Force, Centers for Disease Control and Prevention, American Academy of Pediatrics/Bright Futures, and Advisory Committee on Immunization Practices.

c) Community Care of North Carolina (CCNC), Area Health Education Centers (AHEC) Program, and the Division of Public Health should pilot tools and strategies to help primary care providers deliver high quality adolescent health checks. Strategies could include:

1) Trainings and other educational opportunities around the components of the Adolescent Health Check including dental screening, laboratory tests as clinically indicated (e.g. STD/HIV, dyslipidemia, pregnancy test, etc.), nutrition assessment, health risk screen and developmentally-appropriate psychosocial/behavioral & alcohol/drug use assessments, physical exam, immunizations, anticipatory guidance and follow-up/referral, and, for female adolescents, a family planning component.

2) The development and implementation of a quality improvement model for improving adolescent health care.

North Carolina's foundations should provide $500,000 over three years to support this effort.

Barriers to Adolescents Receiving High-Quality Health Care

There are a variety of barriers to adolescents having access to and using high-quality health care services. A major barrier to receiving routine care or care for specific health conditions is lack of adequate insurance. In North Carolina, 13% of youth ages 10-18 are uninsured, as are 34% of young adults ages 19-24. Most uninsured children under age 19 are already eligible for, but not enrolled in, publicly-funded insurance such as Medicaid or NC Health Choice (the state's Child Health Insurance Program) as these programs together cover all children with family incomes up to 200% of the federal poverty guidelines (or $44,100/year for a family of four in 2009).[c] In North Carolina, for example, 66% of the uninsured adolescents between ages 10-18 are eligible for, but not enrolled in, Medicaid or NC Health Choice. Many eligible children are denied coverage or lose eligibility during recertification due to procedural barriers.[19] Another 12% would be eligible if the state expanded the income eligibility guidelines up to 300% of the federal poverty guidelines (or $66,150/year for a family of four).

A major barrier to receiving routine care or care for specific health conditions is lack of adequate insurance.

The income eligibility criteria for young adults ages 19-20 years is much stricter than for younger adolescents. For example, a 17-year-old can qualify for Medicaid if their countable income is not more than $903/month (100% of the federal poverty guidelines), and can qualify for NC Health Choice if their income is between $903 and $1,805/month. However, a young adult age 19 or 20 can only qualify for Medicaid if their countable income is no more than $362/month (40% of the federal poverty guidelines). Adults age 21 years or older cannot qualify for Medicaid at all—unless they have dependent children or meet very strict disability standards and have low incomes. Young adults are the most likely age group to lack insurance coverage, and a greater percentage of 19-24 year olds are uninsured in North Carolina than nationally (34% vs. 30%, respectively).[d] This is due to a combination of reasons, including the difficulty in qualifying for public coverage; the fact that many young people work in jobs that do not offer insurance coverage; loss of parental coverage once a child turns 18 (unless he or she is enrolled full-time in college); and the high cost of private insurance coverage.[20]

Ensuring that adolescents have access to care is critical to improving their immediate and long-term health. Therefore, the Task Force recommends:

c Medicaid covers children ages 10-18 with family incomes up to 100% of the federal poverty guidelines (or $22,050 for a family of four in 2009). NC Health Choice covers children ages 10-18 with family incomes between 100-200% of the federal poverty guidelines. To qualify, the youth must be a US citizen or a lawfully present immigrant who has lived in the United States for at least five years.

d North Carolina Institute of Medicine. Analysis of the Current Population Survey, Annual Social and Economic Supplement.

Recommendation 4.2: Expand Health Insurance Coverage to More People

The Task Force believes that everyone should have health insurance coverage. In the absence of such, the North Carolina General Assembly should begin expanding coverage to groups that have the largest risk of being uninsured. Such efforts could include, but not be limited to:

a) Provide funding for the Division of Medical Assistance to do the following:

1) Expand outreach efforts and simplify the eligibility determination and recertification process to identify and enroll children and adolescents who are already eligible for Medicaid or NC Health Choice.

2) Expand Medicaid income eligibility levels for adolescents 19-20 up to 200% of the federal poverty guidelines (FPG) or higher if the income limits are raised for younger children.

b) Expand publicly subsidized coverage to children and adolescents with incomes up to 300% FPG on a sliding scale basis.

c) Change state laws to require insurance companies to offer parents the option to continue dependent coverage until the child reaches age 26, regardless of student status.

School-Based Health Care

Schools have been providing health services to students for over 100 years, initially with the goal of controlling communicable diseases and reducing absenteeism.[21] Current school health services have expanded upon these initial goals due to an increasing understanding of the link between children's physical and mental health and school performance. (See Chapter 5.) The CDC's Division of Adolescent and School Health (DASH) recognizes the strong relationship between education and health and has developed a model for this through the Coordinated School Health Program (CSHP). The eight components of this model focus on specific issues that directly impact the health of students and in turn the health of the overall school. (See Chapter 5.) North Carolina has a history of investing in the multiple components of the model. In this chapter we discuss three strategies that include strengthening the health-services component of this model.

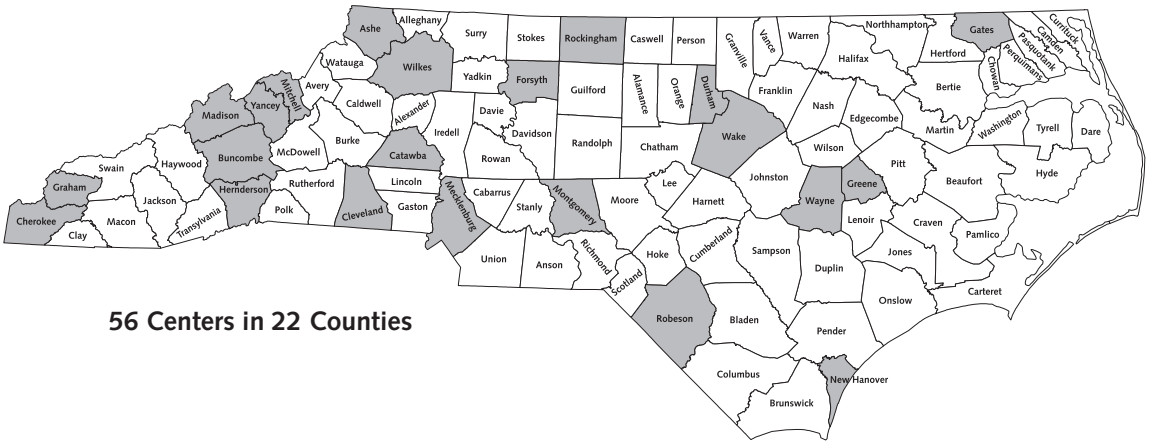
SBLHCs have been shown to increase receipt of needed physical and mental health care, improve health knowledge and reported health behavior ... and decrease general emergency department utilization among users of health centers.

School-Based Health Care Centers

School-based and school-linked health centers (SBLHCs) are comprehensive clinics within or linked to schools that meet the needs of students. Within the SBLHC an interdisciplinary team provides access to high quality comprehensive physical and mental health services emphasizing prevention and early intervention.[22] Most address the CSHP components of health services; counseling, psychological, and social services; and health education. Many address additional components of individual Health Education and Health Promotion for staff. SBLHCs have been shown to increase receipt of needed physical and mental health care, improve health knowledge and reported health behavior, lower risk of asthma-related hospitalizations and emergency department utilization, and decrease general emergency department utilization among users of health centers. Providing mental health services is a primary goal for many SBLHCs and mental health programs in schools have been shown to produce comparable improvement in mental health functioning when compared to community-based services and increased utilization of mental health counseling services in comparison with having services in other settings.[10]

North Carolina has invested in SBLHC, particularly in middle and high schools in underserved and rural communities. (See Figure 4.1.) Currently there are 56 centers in 26 Local Education Authorities (LEA) serving approximately 28,000 students.[e] Centers have diverse funding streams to maintain financial viability. In North Carolina, state funding for SBLHCs has

Figure 4.1
North Carolina School-Based and School Linked Health Centers



Source: State Center for Health Statistics. Written (email) communication. November 13, 2009.

e North Carolina has approximately 2,500 schools serving approximately 1,000,000 students.

diminished since 2000 by approximately 10%, despite the growing evidence of their value as safety-net sites and despite a 20% increase in funding of SBLHCS nationally. Several SBLHCS in North Carolina have closed, and many others are struggling to survive. As detailed below, the Task Force recommends increased investment in these centers as a core strategy to connect adolescents in underserved and rural communities to needed health services.

School Nurses

School nurses address several CSHP components based on the needs of their communities and provide important health services to children and adolescents while in school. Most frequently they address the CHSP components of Health Education, Healthy School Environment, and Health Services. For example, school nurses also provide counseling, chronic disease management, emergency services, and also help oversee the administration of medications or other health care procedures.[23] The CDC, the US Department of Health and Human Services Health Resources and Services Administration, and the National Association of School Nurses recommend that there be at least one nurse for every 750 students.[24,25] In 2008 North Carolina schools had, on average, one nurse for every 1,225 students.[f] A North Carolina study that examined the impact of school nurse-to-student ratios on student health outcomes in a 21 county region in Eastern North Carolina found that the increased presence of school nurses increased the services provided to children with diabetes and asthma. Schools with more school nurses also provided more counseling for depression, teen pregnancy, learning difficulties, and a higher percentage of students received follow-up care for school related injuries and vision services.[26] In recognition of the importance of having a sufficient number of school nurses to help assure that adolescent health needs are appropriately addressed, the Task Force recommends funding to increase the number of school nurses in middle and high schools across the state to achieve the ratio of 1:750.

The CDC, the US Department of Health and Human Services Health Resources and Services Administration, and the National Association of School Nurses recommend that there be at least one nurse for every 750 students.

Child and Family Support Teams

The third investment has been the North Carolina General Assembly (NCGA) support for the Child and Family Support (CFST) pilot and evaluation currently being conducted in 100 schools across the state. One goal of this effort is to identify adolescents at high risk of or with significant behavioral or mental health problems and to create comprehensive, multifaceted effective approaches to assure that their needs are met. An evaluation to measure health and behavioral outcomes is underway. These evaluations should include measurement on a variety of outcomes, including educational, health, and justice system outcomes using NC Window on Student Education (WISE) data.

f Tyson CF. School Health Unit Manager, Division of Public Health, North Carolina Department of Health and Human Services. Written (email) communication. March 30, 2009

Due to the important role schools can play in providing health care services, the Task Force recommends:

Recommendation 4.3: Fund School-Based Health Services in Middle and High Schools (PRIORITY RECOMMENDATION)

a) The Department of Public Instruction and the Division of Public Health should work together to improve school-based health services in middle and high schools. The North Carolina General Assembly (NCGA) should appropriate $7.8 million in recurring funds in SFY 2011, $13.1 million in recurring funds in SFY 2012, and additional funding in future years to support school-based health services, including:

1) $2.5 million[g] in recurring funds beginning in SFY 2011 to support school-based and school-linked health centers (SBLHC) and provide funding for five new SBLHCs.

2) $5.3 million in recurring funds each year from SFY 2011-2015 (for a total cost of $26.8 million[h]) to the Division of Public Health to achieve the recommended statewide ratio of 1 school nurse per 750 middle and high school students.

3) The NCGA should continue to support the Child and Family Support Teams (CFST) pilot and evaluation. If CFSTs are shown to improve health and educational outcomes for youth, they should be fully funded to allow for statewide implementation.

Priority in funding should be given to schools and communities with higher populations of at-risk youth and/or greater identified need.

b) North Carolina foundations should fund evaluations of the effectiveness of these initiatives.

During the course of the Task Force work, other strategies to increase the likelihood that all adolescents are connected to high-quality routine health care services were discussed. One model discussed was based on the state's experience with mandating a health assessment at entry to kindergarten. This has been used as an effective mechanism to assure near-universal receipt of a basic health assessment and updating of immunizations among young children

g $2.5 million is the estimated cost to fund 5 new school-based or school-linked health centers. (Tyson CF. School Health Unit Manager, Division of Public Health, North Carolina Department of Health and Human Services. Written (email) communication. March 23, 2009).

h $26.8 million is the estimated cost to achieve the recommended 1:750 ratio in middle and high schools. (Tyson CF. School Health Unit Manager, Division of Public Health, North Carolina Department of Health and Human Services. Written (email) communication. March 30, 2009).

as they enter school. The Task Force recommends convening a working group to develop a sixth grade school assessment plan. The 2008 North Carolina Child Health Assessment Monitoring Program (NC CHAMP) survey found that 94% of parents of adolescents between the ages of 11 and 17 reported that they felt it was important for a child to get a regular check-up before entering middle school.[11] Therefore, the Task Force recommends:

Recommendation 4.4: Developing a Sixth Grade School Health Assessment

The Women and Children's Health Section of the Division of Public Health should convene a working group to develop a plan to operationalize a sixth grade health assessment. The working group should include the Department of Public Instruction, Division of Medical Assistance, the North Carolina Pediatric Society, North Carolina Academy of Family Physicians, Community Care North Carolina (CCNC), representatives from local health departments, and other health professionals as needed. The plan should be presented to North Carolina School Health Forum and the North Carolina General Assembly by the beginning of the 2011 Session.

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