Substance Abuse Comprehensive System of Care

Chapter 4

Many North Carolinians engage in risky alcohol, tobacco, and/or drug use behavior. Some are physically or psychologically addicted to these substances, while others have engaged in risky or abusive behaviors that may later turn into an addiction. Reducing substance use, abuse, and dependence requires a comprehensive system of care that starts with prevention, offers early intervention services before people become dependent, provides various levels of treatment services to meet the needs of people with more severe substance abuse problems, and offers continual recovery supports to help people in recovery remain sober.

The Task Force envisioned a system of care that would provide evidence-based interventions based on a person's need.[a] At one end of the spectrum, the state would target prevention efforts to youth and adolescents to enhance their knowledge and skills, reduce risk factors, and enhance protective factors so that they are less likely to engage in risky behaviors. Implementing evidence-based prevention programs, policies, and practices should help reduce or delay the use of alcohol, tobacco, and other drugs among adolescents. As discussed in Chapter 2, people who initiate substance use in childhood or adolescence are more likely to later become addicted. Thus, if the state implements evidence-based prevention programs that reduce or delay use among adolescents, the result will be fewer people with addiction problems.

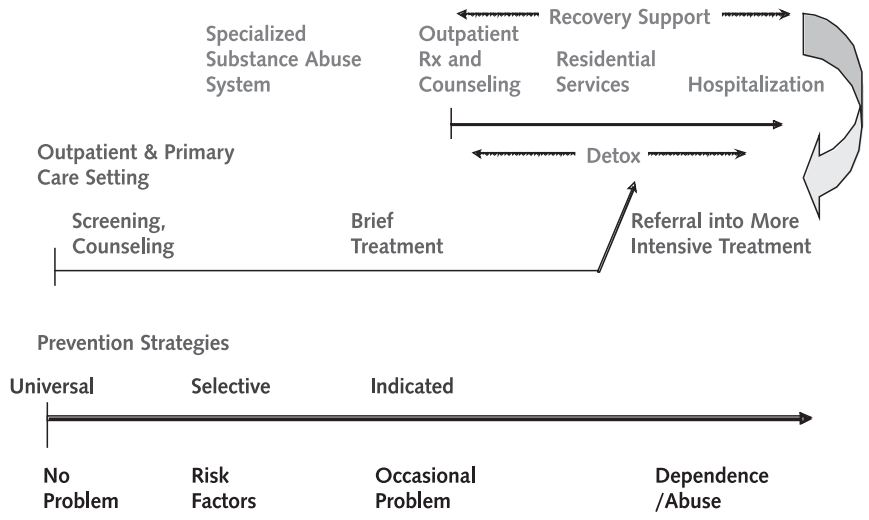
A different strategy is needed for people who are starting to engage in risky behaviors but who have not yet become addicted. These individuals would benefit greatly from a primary care-based brief intervention to help prevent them from engaging in more destructive behaviors. Without these early intervention services, these individuals are likely to progress to worse stages of abuse and/or dependence.

At the far end of the spectrum, individuals with more severe problems need different levels of treatment offered through the specialized substance abuse system. Even after they have been treated and have become sober, they will likely need recovery supports to prevent relapse. Chart 4.1 shows the services needed to fully address substance abuse problems in the state.

Reducing substance use, abuse, and dependence requires a comprehensive system of care that starts with prevention, offers early intervention services before people become dependent, provides various levels of treatment services to meet the needs of people with more severe substance abuse problems, and offers continual recovery supports to help people in recovery remain sober.

a The National Registry of Evidence-based Programs and Practices (NREPP), a part of Substance Abuse and Mental Health Services Administration, maintains a searchable database of interventions for the prevention and treatment of mental and substance use disorders. Information is available online at www.nrepp.samhsa.gov. The Promising Practices Network maintains a list of evidence-based programs and practices for prevention efforts targeted to children and youth. Available online at http://www.promisingpractices.net.

Chart 4.1
Comprehensive Substance Abuse Services System



Implementing evidence-based prevention programs and policies can help to reduce the burden of substance abuse in North Carolina and on North Carolinians.

PREVENTION

Comprehensive Community Prevention Efforts

Substance abuse severely impacts the lives of individuals and the quality of life for individuals, families, and communities. In addition, as discussed more fully in Chapter 1, alcohol and drug abuse cost the North Carolina economy over $12.4 billion in direct and indirect costs in 2004.[1] In 2005, alcohol use contributed to 26.8% of crash-related fatalities.[2] Further, people with alcohol or drug abuse problems are more likely to commit crimes or have their children removed due to abuse or neglect than people without these addiction disorders.[3] Implementing evidence-based prevention programs and policies can help to reduce the burden of substance abuse in North Carolina and on North Carolinians. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), communities can save four to five dollars for every one dollar they spend on substance abuse prevention.[4] Research has shown that prevention and intervention are among the most appropriate strategies to respond to student problematic behaviors such as violence, substance abuse, school failure, and delinquency.[5-7] Research also supports the development of comprehensive strategies involving multiple systems that target youth during critical developmental stages.[8,9]

Addiction is a disease that often begins in childhood and adolescence.[10] The adolescent developmental period is the critical time to intervene to prevent substance abuse.[10] If we can prevent youth from using alcohol, tobacco, or other drugs, or if we catch youth who are abusing substances early, we can prevent people from becoming dependent on these substances.[11] Surveys of North Carolina youth show that almost 40% of high school students had at least one drink in the last 30 days.[12] Almost 40%

of high school students in North Carolina have used marijuana, and while the use of tobacco is declining among youth, still more than 22% of high school students smoked cigarettes in the last 30 days. Further, a substantial proportion of children in middle school have also used these substances.[13]

For optimal results, a comprehensive community prevention plan for the state should consider the risk status of all members of the population and should incorporate various strategies to effectively reach members with varying degrees of risk. Some individuals have risk factors which make them more likely to engage in risky behaviors; others have protective factors which protect the individual even if he or she is exposed to risk factors. For example, risk factors for adolescent substance abuse include parents with substance abuse problems, lack of parental supervision, and negative peer influences. Protective factors include increased parental involvement and a strong attachment to the community. Evidence-based prevention strategies can help reduce risk factors and strengthen protective factors.[14]

Risk factors for adolescent substance abuse include parents with substance abuse problems, lack of parental supervision, and negative peer influences.

A mixture of different evidence-based prevention models are appropriate, depending on whether a prevention effort is targeted at the general population ("universal" population), a subset of the population at increased risk ("selective" population), or aimed at individuals who have already begun to use or misuse substances ("indicated" population). This maximizes the opportunity for all individuals in the population to receive an intervention but tailors interventions to the appropriate risk level. This classification system, developed by the Institute of Medicine of the National Academies of Science, has been adopted by the North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS).[15]

- ***Universal:*** Interventions are aimed at the general population with the assumption that every individual in the population is at some level of risk for substance abuse. The goal of universal prevention is to deter onset of use.
- ***Selective:*** Interventions are tailored to reach a subset of the general population—those individuals who are believed to be at some level of risk for substance abuse simply due to their inclusion within a particular subset of the population. Children with a parent with a substance abuse problem or children who are displaying poor academic performance are subgroups that warrant selective prevention interventions. Biological, psychological, social, or environmental risk factors that are associated with substance abuse can also be used to identify at-risk segments of the population.
- ***Indicated:*** Interventions target those persons at high risk for substance abuse problems, such as those who are using alcohol, tobacco, or other drugs but not at a level that is diagnosable as addiction. Teachers, youth workers, parents, and other community members can refer individuals to indicated prevention programs.[16]

In addition to targeting prevention interventions to subsets within the population, using multilevel interventions to improve population health has been shown to be effective in a variety of areas including substance abuse.[17] This multilevel approach relies on interventions aimed at the personal, interpersonal, institutional, community, and/or public policy levels.[b,18] Designing and implementing prevention efforts in this way allows for various interventions to build on and support one another. Evidence suggests that a multilevel approach may be essential to create change in a broad population.[17] Substance abuse prevention efforts should incorporate strategies at each of the above-mentioned levels. For example, a successful substance abuse prevention initiative might include individual level interventions (i.e. increasing knowledge and skills to resist peer pressure to use drugs), interpersonal interventions (i.e. strengthening family connections and positive peer networks), institutional interventions (i.e. evidence-based programs in schools, universities, or worksites), community factors (i.e. community anti-drug coalitions that involve various community groups and agencies in drug prevention efforts), and public policy interventions (including smoking bans and taxation on alcohol).

Implementing prevention programs that reflect specific community needs is critical to the success and sustainability of programs.

Implementing prevention programs that reflect specific community needs is critical to the success and sustainability of programs. Currently, DMHDDSAS works with Local Management Entities (LMEs) to conduct needs assessments and to implement evidence-based prevention programs, practices, and policies.[c,15] Funds are allocated to LMEs through the Substance Abuse Prevention Treatment (SAPT) block grant. On a semiannual basis, communities report the use of evidence-based prevention programs, practices, and policies to the state. This information is then provided to the federal government. However, while LMEs are required to engage in community-based needs assessments and implement evidence-based prevention programs, these community-based prevention programs reach very few people. In 2007, there were 731,632 children aged 12-17 years in North Carolina. Of those, DMHDDSAS estimates that nearly all were in need of a universal substance abuse prevention program, and 275,826 were in need of selective or indicated prevention programs. However, DMHDDSAS estimates that only 42,000 were served through substance abuse block grants and the Safe and Drug-Free Schools and Communities Act (SDFSC) grants (SFY 2006-2007).[11]

The North Carolina General Assembly provided funding in 2007 to begin to expand community-based prevention strategies. DMHDDSAS created the North Carolina Coalition Initiative (NCCI), a substance abuse prevention initiative that engages community coalitions in substance abuse prevention. DMHDDSAS provides funding to Centerpoint LME and Wake Forest University School of Medicine to serve as the

b This intervention approach is based upon the socioecological model of health behavior theory.

c Substance Abuse and Mental Health Services Administration's National Registry of Evidence-based Programs and Practices (NREPP) provides a searchable database of evidence-based prevention programs for use in communities at http://www.nrepp.samhsa.gov. The Promising Practices Network maintains a list of evidence-based programs and practices for prevention efforts targeted to children and youth. Available online at http://www.promisingpractices.net.

NCCI Coordinating Center and provide technical assistance to sustain local efforts. To date, $35,000 in one-time funding has been provided to eight emerging and three established coalitions that are geographically dispersed across the state. The funding will be used primarily to support a community needs assessment and the development of a strategic action plan to build community coalitions to prevent substance use and abuse in a community, but the funding is insufficient to support comprehensive prevention strategies.

North Carolina should develop and implement a comprehensive statewide substance abuse prevention plan for use at the state and local levels. The plan should be consistent with the Center for Substance Abuse Prevention (CSAP) Strategic Prevention Framework and include multilevel evidence-based interventions targeted to the individual, interpersonal, institutional, community, and policy levels.[d] The Task Force recommends pilot testing the plan in six local communities and evaluating it to determine its effectiveness before expanding implementation statewide. Because LMEs are the local entities charged with overseeing substance abuse prevention and treatment activities in the state, the Task Force recommended that LMEs serve as fiscal and management agencies for these pilots. However, the Task Force also heard concerns that some of the LMEs were not actively interested and engaged in managing prevention or treatment services. In these instances, local community agencies could work directly with DMHDDSAS to identify potential cross-area programs or regional LMEs that could serve as fiscal agents.

To develop and pilot comprehensive substance abuse prevention plans, the Task Force recommends:

Recommendation 4.1 (PRIORITY RECOMMENDATION)

a) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) should develop a comprehensive substance abuse prevention plan for use at the state and local levels. The plan should increase the capacity at the state level and within local communities to implement a comprehensive substance abuse prevention system, prioritizing efforts to reach children, adolescents, young adults, and their parents. The goal of the prevention plan is to prevent or delay the onset of use of alcohol, tobacco, or other drugs, reduce the use of addictive substances among users, identify those who need treatment, and help them obtain services earlier in the disease process.

d The Strategic Prevention Framework (SPF) is Substance Abuse and Mental Health Services Administration's approach to substance abuse prevention from a systemic perspective. The five steps operate as the guiding foundation with sustainability and cultural competence as embedded principles. There are several required components to the SPF including:
- Needs Assessment
- Capacity Building
- Planning
- Implementation
- Evaluation

Information taken from: http://www.samhsa.gov/csap.

1) DMHDDSAS should work with appropriate stakeholders to develop, implement, and monitor the prevention plan at the state and local level. Stakeholders should include, but not be limited to, other public agencies that are part of the Cooperative Agreement Advisory Board, consumer groups, provider groups, and Local Management Entities (LMEs).
2) DMHDDSAS should direct LMEs to involve similar stakeholders to develop local prevention plans that are consistent with the statewide comprehensive substance abuse prevention plan.

b) The North Carolina General Assembly should appropriate $1,945,000 in SFY 2010 and $3,722,000 in SFY 2011 in recurring funds to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) to develop this comprehensive substance abuse prevention.

c) Of the recurring funds appropriated by the North Carolina General Assembly, $1,770,000 in SFY 2010 and $3,547,000 in SFY 2011 should be used to fund six pilot projects to implement county or multi-county comprehensive prevention plans consistent with the statewide comprehensive substance abuse prevention plan. DMHDDSAS should make funding available on a competitive basis, selecting one rural pilot and one urban pilot in the three DMHDDSAS regions across the state. Technical assistance should be provided to the selected communities by the regional Centers for Prevention Resources. LMEs should serve as fiscal and management agencies for these pilots. The six pilot projects should:

1) Involve community agencies, including but not limited to the following: Local Management Entities, local substance abuse providers, primary care providers, health departments, social services departments, local education agencies, local universities and community colleges, Healthy Carolinians, local tobacco prevention and anti-drug/alcohol coalitions, juvenile justice organizations, and representatives from criminal justice, consumer, and family advisory committees.
2) Be comprehensive, culturally appropriate, and based on evidence-based programs, policies, and practices.
3) Be based on a needs assessment of the local community that prioritizes the substance abuse prevention goals.
4) Include a mix of strategies designed for universal, selective, and indicated populations.
5) Include multiple points of contact to the target population (i.e. prevention efforts should reach children, adolescents, and young adults in schools, community colleges and universities, and community settings).
6) Be continually evaluated for effectiveness and undergo continuous quality improvement.
7) Be consistent with the systems of care principles.
8) Be integrated into the continuum of care.

d) **The North Carolina General Assembly should appropriate $250,000 of the Mental Health Trust Fund or from general funds to the DMHDDSAS to arrange for an independent evaluation of these pilot projects and for implementation of the state plan. The evaluation should include, but not be limited to, quantifying the costs of the projects; identifying the populations reached by the prevention efforts; and assessing whether the community prevention efforts have been successful in delaying initiation and reducing the use of tobacco, alcohol, and other drugs among children, adolescents, and young adults. To determine effectiveness, the evaluation should include an analysis of the performance of the pilot communities with appropriate comparison groups. The evaluation should also include other community indicators that could determine whether the culture of acceptance of underage drinking or other inappropriate or illegal substance use has changed, including but not limited to arrests for driving under the influence, underage drinking, or use of illegal substances; alcohol and drug related traffic crashes; reduction in other problem indicators such as school failure; and incidence of juvenile crime and delinquency.**

e) **The DMHDDSAS should use the findings from the independent evaluation of prevention services to develop a plan to implement the successful strategies statewide. The plan should be presented to the Legislative Oversight Committee on Mental Health within six months of when the evaluation is completed.**

School-Based Prevention, Screening, and Treatment Efforts

Schools are an integral part of a multifaceted prevention strategy, as youth spend a considerable amount of time at school. A comprehensive substance abuse prevention plan would focus on preventing children, teens, and young adults from initiating or using alcohol, tobacco, or other drugs but should also include early intervention, brief treatment, and referrals to more intensive services for those who need it. Different strategies are needed, depending on whether the students are enrolled in elementary, middle, or secondary schools, or in post-secondary colleges and universities.

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Elementary, Middle, and Secondary Students

North Carolina schools are responsible for providing substance abuse education to students. This curriculum is part of the *Healthful Living Standard Course of Study*, the state's health education requirements for children in kindergarten through eighth grade, with one unit of combined health and physical education in high school.[19] The Healthful Living Standard Course of Study includes educational objectives for every grade, but does not require a specific curriculum. Students are required to receive information about the health risks of using alcohol, tobacco, and other drugs in each grade level, and are taught skills to help them decline offers to engage in these unhealthy behaviors. In 2004, Pankratz and Hallfors found that while some schools in North Carolina use evidence-based substance

abuse prevention curricula, they are not the most commonly used.[e,20] It is difficult to assess the effectiveness of any part of the Healthful Living Standard Course of Study as health education is not subject to end of course testing.

In addition to the substance abuse education provided as part of the Healthful Living Course of Study, schools also receive federal funds which can be used to provide substance abuse services. The US Department of Education provides states with funding for *Safe and Drug-Free Schools and Communities* (SDFSC).[21] Eighty percent of the funding goes to the North Carolina Department of Public Instruction (DPI) to use directly in the school system, while 20% of the funding is allocated to the Governor. The funding to DPI is used to prevent violence in and around schools; prevent students from using alcohol, tobacco, or other drugs; involve parents and communities; and work with other federal, state, and community efforts to foster a positive learning environment that supports academic achievement. Local education agencies have a lot of flexibility in the use of the federal funds, as long as the funds are used to support the goals stated above. For example, schools can use these funds to expand and improve school-based mental health services including early identification of violence and illegal drug use; provide counseling, mentoring, and referral services for students at risk of violent behavior and illegal use of drugs; or test students for illegal drug use. However, schools can also use the funds for other purposes—such as purchasing security equipment—which are not as directly tied to preventing, identifying, referring, or treating students at risk of or using alcohol, tobacco, or other drugs.

The Department of Public Instruction and Division of Mental Health, Developmental Disabilities, and Substance Abuse Services should work to establish evidence-based prevention, early intervention, and treatment programs for students in the school setting.

The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) manages the governor's portion of the Safe and Drug-Free Schools and Communities (SDFSC) funding from the US Department of Education. The governor's portion provides community-based services to special populations and high-risk youth who are not normally served by the state or local education agencies. These funds are coordinated through the LMEs which contract with community providers in over 30 counties.

DPI and DMHDDSAS should work to establish evidence-based prevention, early intervention, and treatment programs for students in the school setting. In the past, both agencies worked collaboratively to support student assistance programs, which provided a framework to deliver prevention, intervention, and support services to students with alcohol and drug problems.[f] These programs were initially funded in

e The Drug Abuse Resistance Education (DARE) program is used in approximately three-fourths of schools across the nation. However, multiple studies have shown that this program produces no long-term effect on alcohol, tobacco, or drug use. (Office of the Surgeon General, United States Dept of Health and Human Services. The surgeon general's call to action to prevent and reduce underage drinking. http://www.surgeongeneral.gov/topics/underagedrinking/calltoaction.pdf. Published 2007. Accessed January 21, 2009. Lynam DR, Milich R, Zimmerman R, et al. Project DARE: No effects at 10-year follow-up. *J Consult Clin Psychol*. 1999;67(4):590-593. Ringwalt CL, Greene JM, Ennett ST, Iachan R, Clayton RR, Leukefeld CG; Research Triangle Institute and the University of Kentucky. Past and future directions of the D.A.R.E. program: An evaluation review. http://www.ncjrs.gov/txtfiles/darerev.txt. Published September 1994. Accessed December 29, 2008.)

f *Help is Down the Hall* is a handbook on student assistance from SAMSHA. This handbook provides a sample of selected student assistance models and selected national resources. It is available online at: http://www.nacoa.net/pdfs/SAP%20HANDBOOK.pdf.

1988 through state funds but lost state funding in years of tight budget constraints. Effective student assistance programs, like the one in Washington State, include developmentally appropriate services that target schools, classrooms, and individual students. The programs offer early alcohol and drug prevention services to students and their families, help with referrals to community treatment providers, and strengthen the transition back to school for students who have alcohol or drug abuse problems. When implemented appropriately, this model has been shown to be effective in reducing use of alcohol and drugs and also in reducing barriers to learning.[22]

Every school district in North Carolina should implement *evidence-based* substance abuse prevention programs and have trained staff to ensure that children with substance abuse problems are identified early and referred into treatment with the appropriate family and school supports.

Community Colleges, Colleges, and Universities

Community colleges and universities should also have a comprehensive substance abuse prevention, early intervention and treatment plan. All institutions of higher education are required to provide information to students about unlawful use of alcohol and drugs, under the Drug-Free Schools and Communities Act and the Drug and Alcohol Abuse Prevention Regulations.[g] As part of this requirement, all post-secondary institutions must implement a substance abuse prevention program to prevent unlawful use of illegal drugs or alcohol on campus. Schools must provide information to students and employees about the health risks associated with substance use, as well as the expected conduct standards and sanctions relating to inappropriate or illegal use of drugs and alcohol. Schools must also provide information on available counseling, treatment, and rehabilitation programs. Community colleges typically refer students with drug and alcohol issues to community agencies (such as LMEs), whereas many universities offer counseling and treatment services on campus. Each institution is required to review the effectiveness of its alcohol and drug abuse prevention program and sanctions enforcement on a biennial basis, and revise the plan as needed. In addition, to the requirements of the Safe and Drug Free Schools Act, all community colleges, colleges, and universities are required to prepare and release annual crime data, including information about the number of people who have been arrested or subjected to disciplinary actions involving illegal drugs or alcohol.[h]

Community colleges and universities should also have a comprehensive substance abuse prevention, early intervention and treatment plan.

Some colleges and universities go beyond the minimum requirements of federal law. The University of North Carolina campuses provide substance abuse prevention

g 20 USC §1145g and the Education Department General Administrative Regulations (EDGAR), 34 CFR Parts 74-99. A summary of the federal requirements are available at: http://www.higheredcenter.org/mandates/dfsca.

h Community colleges, colleges, and universities are required to submit crime reports to the US Department of Education. This report, often referred to as the Clery Report, includes information about the number of people who have been arrested or subjected to disciplinary actions involving illegal drugs or alcohol. 20 USC§ 1092(f). Postsecondary institutions are required to report illegal drug use, possession, or sale if it occurs on campus property. These institutions are also required to report on underage drinking and illegal purchase or transportation of alcohol, but they are not required to report driving under the influence or drunkenness. Institutions do not need to report on tobacco use by students or any student activities regarding drug or alcohol use that occurs off campus (even if leading to a disciplinary action).

and education programs, screening, counseling services, and referrals to treatment agencies for alcohol and drug addiction. In addition, many work together with their local communities through coalitions and partnerships and collaborate with each other through the Network Addressing Collegiate Alcohol and Other Drug Issues. Similar prevention services are offered at other colleges and campuses. For example, all incoming freshman are required to complete an on-line training course on alcohol education at Duke University.[23]

Although each of the colleges and universities has some prevention activities in place, more work is clearly needed. As described in Chapter 2, youth and young adults have the highest use of alcohol and drugs. More work is needed on college campuses to prevent the use of alcohol, tobacco, and other drugs. Schools should be required to implement evidence-based prevention interventions, and have systems for early interventions and referral into treatment. The strategies might differ, depending on whether the students with substance abuse problems are enrolled in community colleges or universities. Further, North Carolina state policy makers should become more actively involved in monitoring the prevention, early intervention, and treatment options in our elementary, middle, and secondary schools and institutions of higher education. Thus, the Task Force recommended:

Recommendation 4.2

a) The North Carolina General Assembly should direct the State Board of Education, Office of Non-Public Education, North Carolina Community College System, and University of North Carolina System to review their existing substance abuse prevention plans, programs and/or policies, and availability of substance abuse screening and treatment services, in order to ensure that these educational institutions offer comprehensive substance abuse prevention, early intervention, and treatment services to students enrolled in their schools. These institutions should submit a description of their prevention plans, programs and/or policies, procedures for early identification of students with substance abuse problems, and information on screening, treatment, and referral services to the Joint Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS), the Appropriations Subcommittee on Education, and Education Committees no later than the convening of the 2010 session. The description should include the following:

1) Information about what evidence-based or promising prevention programs, policies, and practices have been or will be implemented to prevent or delay children, adolescents, and young adults from initiating the use of tobacco, alcohol, or other drugs, or reducing the use among those who have used these substances in public schools, community colleges, and the public universities.[i]

i The Task Force was unable to identify any evidence-based strategies that had been tested to prevent, delay, or reduce the use of alcohol or drugs on a community-college setting, as the students are commuters and generally older than on college campuses. Therefore, the Task Force recommended that the North Carolina Community College System identify best practices for use in a community college system.

2) **Information from the State Board of Education on how local education agencies have implemented the substance abuse component of the Healthful Living Curriculum, including the educational curriculum or other services provided as part of the Safe and Drug Free Schools Act.**
3) **A plan from the Office of Non-Public Education to incorporate similar prevention strategies into home school and private school settings.**
4) **Information from the State Board of Education, North Carolina Community College System, and University of North Carolina System on the schools treatment referral plans, including linkages to the Local Management Entities and other substance abuse providers, the criteria used to determine when students need to be referred, and whether follow-up services and recovery supports are available on campus or in the community.**

b) **The Department of Public Instruction, North Carolina Community College System, and University of North Carolina system should coordinate their prevention efforts with the other prevention activities led by the DMHDDSAS to ensure the development of consistent messages and optimization of prevention efforts. Prevention efforts should be based on evidence-based programs that focus on intervening early and at each stage of development with age appropriate strategies to reduce risk factors and strengthen protective factors before problems develop.**

Prevention Efforts Targeting Tobacco, Alcohol, and Improper Use of Prescription Drugs

In addition to general prevention efforts, the Task Force also focused on prevention efforts that have been shown to be effective in reducing the use or misuse of tobacco, alcohol, prescription drugs, and illicit drugs.

Tobacco

Youth tobacco use: Tobacco is considered a gateway drug and is often one of the first substances that children use.[24] Tobacco use (as well as alcohol and marijuana use) is a precursor to other illicit drug use.[24] Studies show that children and adolescents who use tobacco are more likely than those who do not use tobacco to consume alcohol or use other illicit substances.[25] Tobacco is a highly addictive substance and targets the same pathway in the brain as alcohol and many other drugs.[26]

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North Carolina Youth Risk Behavior Survey data from 2007 show that 22.5% of high school students have smoked cigarettes on one or more of the past 30 days, while 11.7% of middle school students have.[13] In general, as age increases, so does the probability that cigarettes have been smoked on one or more of the last 30 days.

Congress enacted the Synar Amendment in 1992 to reduce youth access to tobacco products. The Synar Amendment requires states to have laws prohibiting the sale and distribution of tobacco to individuals under the age of 18 and to have effective enforcement mechanisms.[j] Under this law, North Carolina must conduct random, unannounced inspections of retail outlets. In 2005, the state had an inspection failure rate of 16.9%, making it the state with the 5th highest failure rate in the country that year.[k,27]

The North Carolina Department of Crime Control and Safety, Division of Alcohol Law Enforcement (ALE), is the lead state agency for the Tobacco Education and Compliance Check Program.[l,28] Working in partnership with DMHDDSAS, ALE is responsible for reducing tobacco sales to minors. In 2007, the agency conducted 6,895 tobacco compliance checks across the state. Citations were given to 1,125 store clerks in 91 counties for selling tobacco or tobacco products to a minor.[29]

Similarly, DMHDDSAS, through the Federal Office of Juvenile Justice and Delinquency Prevention Enforcing Underage Drinking Laws Program, administers the North Carolina Preventing Underage Drinking Initiative. The Initiative performs alcohol purchase surveys in five counties and cities in North Carolina.[m] The survey involves a youthful appearing person, over the age of 21, attempting to purchase alcohol without identification.[n] If the alcohol establishment allows the purchase without checking for identification, the purchase is considered a sale to an underage person. In the fall of 2008, 554 surveys were conducted of which 158 (28%) of the alcohol establishments would have sold to the surveyor.[n]

To further reduce the opportunity for children to access tobacco or alcohol products, the Task Force recommends:

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j Promulgation of regulation and monitoring states' compliance with the requirements of Synar are the responsibility of the Substance Abuse and Mental Health Administration (SAMHSA). The SAMHSA regulation implementing the Synar Amendment requires the State to do the following:
a. Have in effect a law prohibiting any manufacturer, retailer, or distributor of tobacco products from selling or distributing such products to any individual under the age of 18.
b. Enforce such laws in a manner that can reasonably be expected to reduce the extent to which tobacco products are available to individuals under the age of 18.
c. Conduct annual random, unannounced inspections to ensure compliance with the law. These inspections are to be conducted in such a way as to provide a valid sample of outlets accessible to youth.
d. Develop a strategy and timeframe for achieving an inspection failure rate of less than 20% of outlets accessible to youth.
SAMHSA Web site. http://prevention.samhsa.gov/tobacco/require.aspx. Accessed February 24, 2008.

k Connecticut, Michigan, the District of Columbia, and Kansas had higher failure rates than North Carolina in 2005.

l Beginning in 2002, the North Carolina Health and Wellness Trust Fund began providing $500,000 in grant funds/year to North Carolina Division of Mental Health Developmental Disabilities, and Substance Abuse Services to purchase services from Alcohol Law Enforcement. Continued funding is not guaranteed as the funds are awarded as part of a competitive grant process.

m The alcohol purchase survey was conducted in Alamance County, Chapel Hill, Carrboro, Dare County, Durham County, Forsyth County, Fuquay-Varina, Mecklenburg County, New Hanover County, and Robeson County.

n Eisen M. Community Policy Management Section, Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, North Carolina Department of Health and Human Services. Written communication regarding the North Carolina preventing underage drinking initiative. December 12, 2008.

Recommendation 4.3

The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services; the North Carolina Division of Alcohol Law Enforcement; the Division of Public Health; and the Department of Public Instruction should develop a strategic plan to further reduce tobacco and alcohol sales to minors. The plan may include, but not be limited to additional compliance checks, outlet control, or server education.

In 2005-2006, North Carolina increased its cigarette tax by 30 cents, bringing the state cigarette tax up to its current rate of 35 cents. Increasing the unit price for tobacco products will help reduce the number of people who start smoking and help those who smoke quit.[30] Research shows that a 10% increase in the price of a pack of cigarettes results in a 3-5% drop in adult consumption.[31] Further, research findings suggest children are more sensitive to an increase in price, and a 10% price increase results in a 6-7% decrease in the number of kids who smoke.[32] The federal tax on cigarettes was increased to 61.66 cents with the February 2009 federal reauthorization of the State Children's Health Insurance Program.[o,p] Increasing the cigarette tax to the national average would provide tremendous gain for the state in terms of reducing death and disability due to tobacco use. At the time this report was being written, the national cigarette tax average was $1.19. The Campaign for Tobacco Free Kids estimates that raising North Carolina's cigarette tax by 84 cents to reach the national average would generate $297 million in new state tax revenues annually.[q] Furthermore, the organization reports that such an increase in North Carolina's cigarette tax would result in a 14.2% decrease in the youth smoking rate and that 75,100 children alive today would not become smokers.[33]

Increasing North Carolina's tax on cigarettes and other tobacco products is key to reducing youth tobacco use.

Increasing North Carolina's tax on other tobacco products is also key to reducing youth tobacco use.[r] A US Surgeon General's report states that youth who use smokeless tobacco are more likely to use cigarettes.[34] Currently, other tobacco products are taxed at 10% of wholesale price. A tax of 50% of wholesale price on other tobacco products would be comparable to a $1.19 tax on cigarettes. Such a tax increase on other tobacco products would raise an additional $60.8 million in new revenue and lead to a 26% decrease in consumption among youth.[35] The revenues generated from these increased taxes should be used to support substance abuse prevention efforts.

o Pub L No.111-003

p The new federal tax will go into effect April 1, 2009.

q The methodology that the Campaign for Tobacco-free Kids uses to calculate these estimates was recently modified to reflect new predictions for cigarette consumption. In response to these predictions, the Campaign has increased the background decline (decline in cigarette pack sales) used in its calculations from 1%-2% to 4.5%. The estimates in this report are preliminary. The final estimates will be released by the Campaign in January 2009.

r Taxable tobacco products include smoking tobacco, cigarettes, cigars, cigarillos, bidis, kreteks, snuff, chewing tobacco, snus, and also any other product expected or intended for consumption that contains tobacco or nicotine unless it has been approved by the United States Food and Drug Administration as a cessation-assistance product and is being distributed and sold exclusively for that approved cessation-assistance purpose.

In order to further reduce youth smoking, the Task Force recommends:

Recommendation 4.4 (PRIORITY RECOMMENDATION)

a) The North Carolina General Assembly should increase the tax on a pack of cigarettes to meet the current national average. The cigarette tax should be regularly indexed to the national average whenever there is a difference of at least 10% between the national average cost of a pack of cigarettes (both product and taxes) and the North Carolina average cost of a pack of cigarettes.

b) The North Carolina General Assembly should increase the tax on all other tobacco products to be comparable to the current national cigarette tax average, which would be 50% of the product wholesale price.

c) The increased fees should be used to fund evidence-based prevention and treatment efforts for alcohol, tobacco, and other drugs.

One step to reduce adolescent smoking is to encourage cessation among parents.

Adult tobacco use: Parents play a key role in adolescent health behavior development. Children who have parents who smoke are more likely to smoke.[36,37] One step to reduce adolescent smoking is to encourage cessation among parents.[37] Reducing the number of adults or parents who smoke may lead to reductions in the number of youth who initiate and/or continue to smoke.

The Centers for Disease Control and Prevention (CDC) recommends telephone counseling and support to assist individuals in quitting tobacco when included in a comprehensive tobacco cessation plan. All 50 states and the District of Columbia offer quitline services as evidence-based practice for smoking cessation.[s] From November 2005 to November 2007, over 5,000 callers had reached the Quitline NC for cessation assistance.[t,u] Success rates for the Quitline NC program show an average 17% quit rate, which is comparable with other tobacco use cessation programs. Preliminary data show that 94% of callers are satisfied with their Quitline NC experience. On average, quitlines reach an average of 4% of all smokers; however, the current annual funding of North Carolina's Quitline only allows the Quitline to reach less than 1% of smokers in the state. The Centers for Disease Control and Prevention (CDC)recommends that state quitlines reach 6% of smokers.[v] Funding

s This recommendation was developed by the US Task Force on Community Preventive Services, which is a group of experts appointed and supported by the Centers for Disease Control and Prevention, US Department of Health and Human Services. The recommendations of the US Task Force on Community Preventive Services are compiled in the Guide to Community Preventive Services, which "serves as a premier source of high quality information on those public health interventions and policies (including law-based interventions) that have been proven to work in promoting health and preventing disease, injury, and impairment." Community Guide Web site. http://www.thecommunityguide.org/about/ and http://www.thecommunityguide.org/policymakers.html. Accessed March 7, 2008.

t Quitline NC was established in November 2005 and is administered by the Tobacco Prevention and Control Branch (TPCB), NC Department of Health and Human Services. Funding is provided by the NC Health and Wellness Trust Fund, Blue Cross and Blue Shield of North Carolina, and the Centers for Disease Control and Prevention (through the TPCB).

u Free & Clear, Inc. is the current Quitline NC vendor. The vendor for SFY 2008-2009 will be determined in April 2008.

v Information provided by the Tobacco Prevention and Control Branch, NC Department of Health and Human Services, on February 27, 2008.

maintain operation of the Quitline is needed to provide cessation assistance to all adults. Therefore the Task Force recommends:

Recommendation 4.5

The North Carolina General Assembly should appropriate $1.5 million in recurring funds to the Division of Public Health to support Quitline NC. The Division of Public Health should use some of this funding to educate providers and the public about the availability of this service.

As of January 2008, 22 states and the District of Columbia have passed smoke-free laws that prohibit smoking in restaurants and bars.[w] Four other states have smoke-free laws that cover restaurants but exempt stand-alone bars.[x,38]

Smoking bans and restrictions help to increase the number of people who quit smoking.

The CDC recommends smoking bans and restrictions to decrease exposure to secondhand smoke.[y] A review of the evidence showed that smoking bans and restrictions help to increase the number of people who quit smoking and decrease the consumption among those who continue to smoke.[39]

In 2007, the North Carolina General Assembly passed smoke-free legislation prohibiting smoking in buildings owned, leased, or occupied by state government.[z] In order to further reduce exposure to secondhand smoke, reduce cigarette consumption and increase the number of people who quit smoking, the Task Force recommends:

Recommendation 4.6 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly should enact a law which prohibits smoking in all public buildings including, but not limited to, restaurants, bars, and worksites.

Alcohol

Adolescent Alcohol Use: Adolescent alcohol use is a nationwide problem. According to the US Surgeon General's *Call to Action to Prevent and Reduce Underage Drinking*, which was released in 2007, some of the leading adverse outcomes associated with underage alcohol use include death from injury, risky sexual behavior, and increased risk of sexual and physical assault.[aa] In addition, the report highlights that underage

w States with smoke-free laws are Arizona, California, Colorado, Connecticut, Delaware, Hawaii, Illinois, Maine, Maryland (Feb. 1, 2008), Massachusetts, Minnesota, Montana (extends to bars Sept. 1, 2009), New Hampshire, New Jersey, New Mexico, New York, Ohio, Oregon (Jan. 1, 2009), Rhode Island, Utah (extends to bars Jan. 7, 2009), Vermont, and Washington.

x States with smoke-free laws covering restaurants but exempting stand-alone bars are Florida, Idaho, Louisiana, and Nevada.

y US Task Force on Community Preventive Services.

z S.L.2007-193

aa Underage in the report refers to persons under the minimum drinking age of 21.

drinking is associated with academic failure, illicit drug use, and tobacco use. Furthermore, since the brain continues to develop well into the 20s, alcohol can impact structure and function of the developing brain.[40]

The US Surgeon General's Report states that alcohol is the most commonly used drug among youth[bb] and that a large proportion of youth begin drinking alcohol prior to age 13. When youth drink, they tend to drink larger quantities than adults, resulting in more frequent binge drinking.[40] Further, the quantity of alcohol that the youth consumes in one setting is associated with other negative outcomes. A study of community college students showed that binge drinkers were more likely to report school, relationship, job, and legal problems than were non-binge drinkers and nondrinkers.[cc,41] The consequences of underage drinking include violence, traffic crashes, property damage, injury, and high-risk sexual behavior, all of which cost the state of North Carolina $1.2 billion in 2005 (or $1,705 per youth annually; see Table 4.1).[42]

Alcohol is the most commonly used drug among youth and a large proportion of youth begin drinking alcohol prior to age 13.

Table 4.1
The Costs of Underage Drinking in North Carolina (2005)

Problem	Total Costs in millions
Youth Violence	$521.1
Youth Traffic Crashes	$393.0
High-Risk Sex, Ages 14-20	$120.2
Youth Property Crime	$97.7
Youth Injury	$43.8
Poisonings and Psychoses	$8.5
Fetal Alcohol Syndrome among Mothers Age 15-20	$22.0
Youth Alcohol Treatment	$19.1
Total	**$1,225.3**

Source: Underage drinking in North Carolina: the facts. Pacific Institute for Research and Evaluation Web site. http://www.udetc.org/factsheets/NorthCarolina.pdf. Published October 2006. Accessed February 10, 2008.

Early onset of drinking increases the risk of alcohol addiction.[43] Most people who die from alcohol begin drinking in their youth.[44] Delaying initiation of alcohol use is important because age of first use is a predictor of future alcohol abuse. An analysis of data from the 1992 National Longitudinal Alcohol Epidemiologic Survey revealed the percent of individuals with lifetime alcohol abuse to be higher among those individuals who started drinking at age 14 or younger compared to those who started drinking at age 20 or older (40% versus 10%). Further analysis

bb Youth refers to individuals under the age of 21.

cc In this study, binge drinkers were defined as men consuming five or more drinks on one occasion or women consuming four or more drinks on one occasion at least 2-3 times a month. Nonbinge drinkers were defined as those who consume alcohol but do not meet the definition of a binge drinker.

showed that delaying initiation was associated with reduced risk of later dependence.[45] According to a 2004 National Survey on Drug Use and Health report, individuals who first drank alcohol prior to age 15 were more than five times as likely to report alcohol dependence or abuse in the past year than were persons who first drank alcohol at age 21 or older.[46] Further, more than 90% of the 14 million adults who were classified as having alcohol abuse or dependence problems in 2003 had initiated their drinking before age 21.[47]

Data from the 2007 North Carolina Youth Risk Behavior Survey (YRBS) show that 19.7% of high school students had their first drink of alcohol before age 13,[dd] while 15.9% of middle school students reported their first drink before age 11.[ee] Having at least one alcohol drink on one or more of the past 30 days was reported by 37.7% of high school students.[ff,13] Results from a recent nationwide survey showed that 19% of college students ages 18-24 met Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV) criteria for alcohol use or dependence.[gg,48]

More than 90% of the 14 million adults who were classified as having alcohol abuse or dependence problems in 2003 had initiated their drinking before age 21.

Prevention and Reducing Youth Alcohol Use and Abuse: Social norms education is the core of a majority of youth alcohol prevention programs. Research has shown that youth overestimate the amount their peers drink. Additionally, they misunderstand their peers' feelings toward alcohol use, believing them to be more positive than they are.[49] Counter-marketing tobacco media campaigns have been successful in changing social and cultural norms leading to reduced teen smoking. Similar media strategies should be used with alcohol, in an effort to change the cultural acceptance of underage drinking. Media campaigns to reduce underage drinking through changing social norms have been proven to be effective on college campuses.[50]

In addition to media campaigns, tax increases have also been suggested as one method to prevent harmful drinking by youth. Several studies have shown that increasing the price of alcohol reduces youth consumption.[51] Further, studies have shown that increasing beer or alcohol taxes leads to other positive health and social consequences.[52] For example, a study by Grossman and Markowitz (2001)[52] showed that a 10% increase in the price of beer led to a:

- 4.5% decrease in the rate at which students got into trouble with the police, residence hall, or other college authorities.
- 5.5% drop in the rate at which students damage property.
- 3.4% decline in the rate at which students get into arguments or fights.
- 3.6% decline in the rate at which students take advantage of another person sexually or are taken advantage of sexually.

dd YRBS QN40: Percentage of students who had their first drink of alcohol other than a few sips before age 13 years.
ee YRBS QN25: Percentage of students who had their first drink of alcohol other than a few sips before age 11 years.
ff YRBS QN41: Percentage of students who had at least one drink of alcohol on one or more of the past 30 days.
gg National Epidemiologic Survey on Alcohol and Related Conditions, National Institute on Alcohol Abuse and Alcoholism.unfortified wine is 79 cents per gallon (or 21 cents per liter), while the rate for fortified wine is 91 cents per gallon (or 24 cents per liter).

In addition, another study by Hollingsworth (2006) suggests that increasing the cost of beer by $1 per 6-pack could reduce premature alcohol-related deaths by 3.3%.[44]

Malt beverages, including beer, are the alcoholic drinks of choice among youth.[53,54] Therefore, it is especially important to examine the cost of beer and the beer excise taxes in the state. North Carolina has the 4th highest beer excise tax in the country; however, the last time the beer tax was raised in North Carolina was in 1969. The current beer tax of 53 cents per gallon equates to five cents per 12-ounce bottle.[55] The real dollar value of the beer tax has eroded by more than 82% since it was last raised.[hh] Had the tax been adjusted for inflation, it would have equated to $3.13 per gallon or 29 cents per 12-ounce bottle sold. Wine and spirits are taxed at a higher rate than is beer. The wine tax is currently 79 cents per gallon, which is the 18th highest state tax on wine.[ii,56] The wine tax was last increased in 1979. The real dollar value of this tax has eroded by 65% by failing to keep pace with inflation. Had the wine tax been adjusted for inflation, it would now be $2.36 per gallon. North Carolina has a 25% tax on distilled spirits, which was last raised in 1987. Unlike the other taxes, this is a percentage of the cost of distilled liquor; therefore it naturally increases as the cost of alcohol increases.[57]

Tax increases, particularly on beer, can help reduce youth drinking.

Tax increases, particularly on beer, can help reduce youth drinking. In addition, increases in excise taxes are also likely to reduce use among heavy drinkers, who have been shown to be responsive to tax increases.[58-60] Furthermore, raising the tax on beer by only 22 cents would increase revenues by over $40 million and raising the tax on unfortified wine by 21 cents would increase revenues by almost $4 million. (See Table 4.2)

Preventing and Reducing Driving While Impaired: Driving under the influence of alcohol is a statewide concern with both young and adult drivers. For young drivers, driving under the influence amplifies the pre-existing risks facing young drivers such as inexperience, impulsiveness, and driving often at night and/or with multiple passengers.[61] As shown in Table 4.3, approximately one in four fatal crashes in North Carolina were alcohol-related from 2001 to 2005, and approximately 5% of all crashes were alcohol-related during this period.

Aside from the risk of alcohol abuse, there is also concern regarding the percent of North Carolina youth reporting to be in situations where alcohol use overlaps with vehicles. One-fourth (24.5%) of high school students reported in 2007 that they rode in a vehicle with someone who had been drinking alcohol[jj] while 26.9% of middle school students reported riding in a car being driven by someone who had

hh This is calculated using the Consumer Price Index Inflation Calculator, available at: http://www.bls.gov/data/inflation_calculator.htm (accessed December 7, 2008).

ii Wine projections are for unfortified wine only, as current consumption for unfortified wine is far higher than it is for fortified wine. (Fortified wine has a higher alcohol content. Some examples of fortified include port and sherry). Note that unfortified and fortified wines are taxed differently. The current excise tax rate for unfortified wine is 79 cents per gallon (or 21 cents per liter), while the rate for fortified wine is 91 cents per gallon (or 24 cents per liter).

jj YRBS QN10: Percentage of students who rode one or more times during the past 30 days in a car of other vehicle driven by someone who had been drinking alcohol.

Table 4.2
Projected Increased Revenues and Decreased Consumption Due to Tax Increases in Beer and Wine[kk]

Beer Tax		
Current Tax Per Gallon	*Current Revenues*	
$0.53	$100,533,960.71	
Potential New Tax Per Gallon	*Increased Revenue*	*Percent Decrease in Consumption*
$0.75	$41,300,454.96	0.96
$1.00	$86,502,261.96	2.04
$1.50	$173,791,378.62	4.22
$2.50	$335,911,622.60	8.57
$3.13	$429,518,636.79	11.31
Wine Tax (unfortified wine)		
Current Tax Per Gallon	*Current Revenues*	
$0.79	$14,320,319.55	
Potential New Tax Per Gallon	*Increased Revenue*	*Percent Decrease in Consumption*
$1.00	$3,737,327.95	0.38
$1.50	$12,518,514.19	1.29
$2.00	$21,134,608.76	2.2
$2.36	$27,235,972.09	2.86

Note: Calculations are based on 2007 NC consumption and revenues (NC Beer and Wine Wholesalers Association). Calculations were performed using the calculator available through the Alcohol Policies Project, Center for Science in the Public Interest. Accessed at http://www.cspinet.org/booze/taxguide/TaxCalc.htm. National average beer and wine retail prices per gallon were used ($4.86 per gallon of beer, $34.23 per gallon wine) as provided by the Alcohol Policies Project. The -0.35 price elasticity used for beer was obtained from Phillip J. Cook, PhD, Duke University.[ll] The price elasticity used for wine was -0.58. Nelson, JP.C22 Economic and demographic factors in U.S. alcohol demand: A growth-accounting analysis. Empirical Economics 22(1):83-102, 1997.

been drinking alcohol.[mm] Moreover, 9.6% of high school students reported driving while under the influence.[nn,12]

The Centers for Disease Control and Prevention (CDC) recommends media campaigns to prevent impaired driving, provided that campaigns are "carefully planned and well executed, attain adequate audience exposure, and are implemented in conjunction with other ongoing alcohol-impaired driving prevention activities."[oo]

kk The predicted price increase (and implied consumption decrease) assumes that the price increases by 7.5% more than the excise tax increase, consistent with the findings by Young and Bielinska-Kwapisz who find that retail price increases by an amount greater than the increase in excise tax.
ll Cook PJ. Duke University. Written communication regarding the price elasticity for beer. January 12, 2009.
mm YRBS QN9: Percentage of students who ever rode in a car driven by someone who had been drinking alcohol.
nn YRBS QN10: Percentage of students who rode one or more times during the past 30 days in a car of other vehicle driven by someone who had been drinking alcohol.
oo US Task Force on Community Preventive Services.

Table 4.3
Crashes in North Carolina and the Percent of those Crashes that were Alcohol-Related Crashes, 2001-2005[pp]

	2001	2002	2003	2004	2005
Non-fatal Crashes	83,043 (8.9)	82,558 (8.1)	83,525 (6.9)	83,211 (7.5)	78,313 (7.8)
Fatal Crashes	1,363 (24.5)	1,426 (24.5)	1,403 (24.5)	1,420 (25.6)	1,417 (26.8)
Total Crashes	217,923 (6.5)	222,164 (5.5)	231,588 (4.7)	230,931 (5.0)	222,298 (5.1)

Source: North Carolina alcohol facts. University of North Carolina Highway Safety Research Center Web site. http://www.hsrc.unc.edu/index.cfm. Accessed February 28, 2008.

In a review of relevant literature, the US Task Force on Community Preventive Services found a 13% median decrease in total alcohol-related crashes associated with such campaigns.[62]

Given the need to reduce youth access to alcohol beverages, reduce underage alcohol consumption, and reduce the incidence of driving while impaired, the Task Force recommends:

Recommendation 4.7 (PRIORITY RECOMMENDATION)

a) In order to reduce underage drinking, the North Carolina General Assembly should increase the excise tax on malt beverages (including beer). Malt beverages are the alcoholic beverages of choice among youth, and youth are sensitive to price increases.

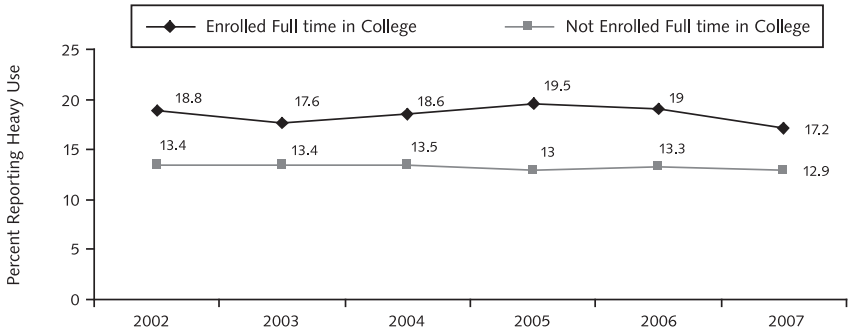
b) The excise taxes on malt beverages and wine should be indexed to the consumer price index so they can keep pace with inflation. The excise tax for beer was last increased in 1969, and wine was last increased in 1979. The increased fees should be used to support prevention and treatment efforts for alcohol, tobacco, and other drugs.

c) The increased fees should be used to fund evidence-based prevention and treatment efforts for alcohol, tobacco, and other drugs.

d) The North Carolina General Assembly should appropriate $2.0 million in recurring funds in SFY 2010 to support a comprehensive alcohol awareness education and prevention campaign aimed at changing cultural norms to prevent initiation, reduce underage alcohol consumption, reduce alcohol abuse or dependence, and support recovery among adolescents and adults.

pp Property damage-only crashes were not included in the table; therefore nonfatal crashes and fatal crashes do not equal total number of crashes.

Chart 4.2
Heavy Alcohol Use among Adults Aged 18 to 22, by College Enrollment (2002-2007)



Source: North Carolina alcohol facts. University of North Carolina Highway Safety Research Center Web site. http://www.hsrc.unc.edu/index.cfm. Accessed February 28, 2008.

Underage drinking on campuses: Alcohol use is particularly problematic on college campuses. Many college students are too young to drink *legally* because the minimum legal drinking age is 21.[qq] Nonetheless, national research suggests that drinking among college-age (18-24 years) students is prevalent, with an estimated 51% of men and 40% of women being classified as binge drinkers (defined as five or more drinks on the same occasion for men and four or more drinks on the same occasion for women).[3] Thirty-one percent of college students abuse alcohol, and 6% meet the clinical guidelines for alcohol dependence with few seeking treatment during college.[63] Drinking among college students has been estimated to contribute to 1,700 deaths, 559,000 injuries, and 97,000 cases of sexual assault or date rape nationally each year.[64]

Drinking among college students has been estimated to contribute to 1,700 deaths, 559,000 injuries, and 97,000 cases of sexual assault or date rape nationally each year.

Perhaps surprisingly, students enrolled full-time in college are more likely to report heavy drinking than those of the same age who are not enrolled full-time in college.[65] (See Chart 4.2.) Heavy drinking is defined as having five or more drinks during one occasion on five or more of the past 30 days.

Many underage college students drink, but do so clandestinely to avoid being caught by campus authorities or law enforcement. Some college presidents and chancellors have argued that this makes it more difficult for them to intervene to teach students to drink responsibly. A group of 130 college presidents and chancellors, including the President of Duke University, have signed a statement to encourage broader-based discussion of the minimum legal drinking age.[rr] This initiative, called the Amethyst Initiative, calls on Congress to unlink the minimum legal drinking age from federal highway funds.

qq Each state establishes its own minimum legal drinking age, however, states that establish a minimum drinking age that is less than 21 lose 10% of their federal highway funds. Thus, all 50 states have established age 21 as the minimum legal drinking age.

rr Statement of Amethyst Initiative available at: http://www.amethystinitiative.org/statement/.

The Task Force examined the health consequences of lowering the minimum drinking age. Studies have consistently shown an inverse relationship between the minimum legal drinking age and alcohol consumption and traffic crashes among youth.[66] Motor vehicle fatalities increased by 10% when the drinking age was lowered to 18. Conversely, fatalities declined by an average of 16% when the drinking age was increased to 21.[67] Drinking among 18 to 20-year-olds has also declined since 1985, about the time when all the states adopted 21 as the minimum drinking age. One study found that drinking among persons 18 to 20 declined from 59% in 1985 to 40% in 1991,[68] and another study found that drinking among college students declined from 82% in 1980 to 67% in 2000.[69]

Although sympathetic to the desire to increase the dialogue about how to reduce underage drinking on college campuses, the Task Force strongly opposed lowering the minimum drinking age. Therefore the Task Force recommended:

Recommendation 4.8

The North Carolina General Assembly should not lower the drinking age to less than age 21.

Some universities have developed more comprehensive prevention activities that are changing the social norms around college drinking.

Some universities have developed more comprehensive prevention activities that are changing the social norms around college drinking. Elon College recently piloted a 0-1-3 campaign: 0 drinks for underage students, no more than one standard size drink per hour and no more than three drinks on any day.[70] Initial evidence has suggested that drinking has declined since initiation of this campaign, with decreases in drinking among first-year students and increases in the number of students choosing not to drink. In addition, almost all students are aware of the 0-1-3 campaign and what it means.[ss]

Wake Forest University School of Medicine is conducting a North Carolina-based Study to Prevent Alcohol-Related Consequences (SPARC) to identify successful interventions to change the culture of acceptance around high-risk drinking behaviors and to reduce alcohol-related consequences.[tt] The study is being funded from the National Institutes of Health and the North Carolina Department of Health and Human Services. The study involves the creation of community-coalitions on five campuses. These SPARC coalitions have worked to reduce alcohol availability both on and off campus, implemented social marketing campaigns to change social norms, and enhanced enforcement activities. Preliminary results have been positive. For example, the SPARC intervention campuses have experienced a significant reduction in alcohol-related injuries caused by others, citations for underage alcohol use, students being sick or injured due to alcohol, and students suspected or seen drinking as compared to control campuses.[tt]

ss Eisen M. Community Policy Management Section, Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, NC Department of Health and Human Services Written communication regarding the Elon college 0-1-3 pilot. December 10, 2008.

tt Alvarez Martin B. Senior Research Associate, Division of Public Health Sciences, Wake Forest University School of Medicine. Written communication regarding the study to prevent alcohol-related consequences (SPARC). November 18, 2008.

To build on these successful efforts on college campuses, the Task Force recommended:

Recommendation 4.9 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly should appropriate $610,000 in recurring funds in SFY 2010 to the Division of Mental Health, Developmental Disabilities and Substance Abuse Services over three years to support efforts to reduce high-risk drinking on college campuses.

a) **$500,000 per year should be used to be used to replicate the Study to Prevent Alcohol Related Consequences (SPARC) intervention at six additional North Carolina public universities by establishing campus/community coalitions that use a community organizing approach to implement evidence-based, environmental strategies.**

b) **$110,000 per year should be allocated to provide coordination, monitoring and oversight, training and technical assistance, and evaluation of these campus initiatives.**

Fetal Alcohol Spectrum Disorder: Fetal alcohol spectrum disorder (FASD) refers to the range of adverse outcomes caused by alcohol use during pregnancy. Fetal alcohol spectrum disorder in itself is not a diagnostic term but a term that broadly refers to several conditions related to alcohol use during pregnancy. These conditions include fetal alcohol syndrome (FAS), alcohol-related neurodevelopmental disorder, and alcohol-related birth defects.[71] Approximately 1% of all births are children born with FASD.[72] Individuals affected by FASD may have physical, mental, learning, and/or behavioral disabilities that will affect them throughout their lives.[73]

Individuals affected by fetal alcohol spectrum disorder (FASD) may have physical, mental, learning, and/or behavioral disabilities that will affect them throughout their lives.

Brain damage is the most serious effect of FASD.[73] In fact, brain imaging and autopsy studies have shown reductions and abnormalities in overall brain size and shape in children with heavy prenatal alcohol exposure.[71] In addition to brain damage, FASD can result in low birth-weight babies with failure to thrive. Other adverse physical outcomes of FASD may include heart and skeletal defects, vision and hearing problems, kidney and liver defects, and dental abnormalities.[73] Heavy prenatal alcohol exposure can lead to overall impairments in intellectual performance, learning and memory, language, attention, reaction time, visual spatial abilities, executive functioning, fine and gross motor skills, and adaptive and social skills.[71,74] Further, FASD can lead to other social problems. In one study of 400 adolescents and adults with FAS and fetal alcohol effects, 90% had mental health problems, 60% had trouble with the law, 50% had been in confinement (for inpatient treatment for mental health problems or alcohol/drug problems, or incarcerated for a crime), 50% showed inappropriate sexual behavior, and 30% had alcohol or drug problems.[74]

The financial burden of FASD is great. In the US, it is estimated that FAS cost $4 billion in 1998.[75] Another source has the estimate approaching $5 billion.[74] Children with FAS may incur lifetime costs of as much as $2 million.[uu,75] North Carolina spent an estimated $22 million on FAS among teen mothers alone in 2005.[42] Klug and Burd analyzed data from the North Dakota Health Claims Database and found that the mean annual cost of healthcare for children (from birth through age 21) with FAS was $2,842 versus an average of $500 for children without FAS. The authors estimated that preventing one case of FAS alone would result in a savings of $23,420 in 10 years.[76]

The occurrence of fetal alcohol-related disorders is, in theory, an entirely preventable public health problem.

The occurrence of fetal alcohol-related disorders is, in theory, an entirely preventable public health problem. Prevention interventions for FASD may include public service announcements and beverage warning labels (universal prevention), counseling pregnant women who positively screen for drinking alcohol (selective prevention), and long-term counseling for high-risk women, including those with an alcohol abuse history and/or a child with FASD (indicated prevention). Universal prevention interventions have increased the general public's knowledge about drinking alcohol and pregnancy. Furthermore, a reduction in alcohol consumption by pregnant women and improved outcomes for the child can result from selective and indicated prevention efforts.[77] For example, a recent study published in the *American Journal of Preventive Medicine* showed that a brief motivational intervention with pre-conceptual women can reduce the risk of an alcohol-exposed pregnancy in at-risk women.[vv,78]

According to 2005 North Carolina Pregnancy Risk Monitoring System (NC PRAMS) data, 3.8% of pregnant women in North Carolina had five or more alcoholic drinks in one sitting at least twice during the last three months of their pregnancy, while 0.5% reported having done this one time during the last three months of their pregnancy.[79]

To reduce the burden of FASD, the SAMHSA Fetal Alcohol Spectrum Disorders (FASD) Center for Excellence and the National Organization on Fetal Alcohol Syndrome have developed a curriculum for addiction professionals to prevent, recognize, and address FASD. Curriculum components have been designed for men, women, and children; however, the prevention component is aimed toward women.[80] More needs to be done to ensure that other health professionals are trained to recognize at-risk individuals, provide early intervention and education to women and adolescents at risk of giving birth to children with FASD, and provide help to caregivers of children born with FASD. The use of other types of drugs during pregnancy can also be harmful to the developing fetus.[81,82] Thus, more also needs to be done to reduce the use of non-therapeutic medications or illegal substances during pregnancy. Given the burden and preventability of fetal alcohol spectrum disorders to society and to individuals born with FASD and the risk of drinking or use of other drugs during pregnancy, the Task Force recommends:

uu FAS is the only condition within FASD for which cost information exists.

vv The brief motivational intervention consisted of four counseling sessions and one contraception consultation and services visit.

Recommendation 4.10

a) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services; the Division of Public Health; the Division of Social Services; and appropriate provider associations should develop a prevention plan to prevent fetal alcohol spectrum disorders and use of other drugs during pregnancy and report this plan to the Joint Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse Services no later than July 1, 2009. The plan should include baseline data and evidence-based strategies that have been shown to be effective in reducing use of alcohol or other drugs in pregnant women and adolescents as well as strategies for early screening and identification, intervention, and treatment for children who are born with fetal alcohol spectrum disorders or addicted to other drugs in utero. The plan should:

1) **Focus on women and adolescents at most risk of giving birth to children with fetal alcohol spectrum disorders.**
2) **Identify a standardized substance abuse screening tool that local health departments, primary care, and obstetrical providers can use for early identification and appropriate referral for services for pregnant women.**
3) **Include strategies to educate, train, and support caregivers of children born with fetal alcohol spectrum disorders.**
4) **Identify strategies to educate primary care providers about early identification of infants and young children born with fetal alcohol syndrome disorder or addiction to other drugs, available treatment, and community resources for the affected children and their families.**

Most of the research on fetal alcohol spectrum disorders has focused on the impact of alcohol use on the developing fetus. However some of the Task Force members raised concerns that there has been insufficient research to understand the effect, if any, from the use of tobacco, alcohol, or other drugs on the ability of couples to conceive a healthy fetus or on the long-term health consequences of children born from parents who actively used tobacco, alcohol, or other drugs prior to conception. Therefore, the Task Force supports efforts from researchers to seek governmental or foundation research funds to research these issues.

Prescription drug abuse is rising in North Carolina and across the nation.

Improper Use of Prescription Drugs

Prescription drug abuse is rising in North Carolina and across the nation. According to the Centers for Disease Control and Prevention, deaths due to accidental overdose increased by 62.5% from 1999 through 2004.[83] The State Medical Examiner's Office reported that unintentional deaths related to prescription drug use rose from 466 deaths in 2003 to 700 deaths in 2006 in North Carolina.[84] Misuse of prescription drugs has resulted in increased emergency room visits, drug related crime, and a rise in drug abuse and dependency.

A key tool needed to prevent misuse, abuse, and diversion of prescription drugs is the availability of adequate prescription monitoring.

Access to prescription drugs for non-medical or improper use occurs almost entirely from diverted prescriptions, forged prescriptions, or prescriptions written on the basis of inaccurate or untruthful information. While laws regulating and controlling substances can cut down on theft and some diversion, a key tool needed to prevent misuse, abuse, and diversion is the availability of adequate prescription monitoring.

The North Carolina General Assembly established the North Carolina Controlled Substances Reporting System Act (CSRS) in 2005.[ww] This law helps improve the State's ability to identify people who abuse or misuse controlled substances and refer them for treatment. The goal is to stop the misuse of prescription drugs without impeding the appropriate medical use of controlled substances.

People who dispense medications must submit information about each prescription for controlled substances (Schedule II through V) dispensed in North Carolina to CSRS. Physicians and other practitioners authorized to prescribe controlled substances, as well as dispensing pharmacists, can access information from CSRS about their patients. Providers can use this information to ensure that their patients are not receiving prescriptions elsewhere in quantities or types that contraindicate the current prescription being written. However, because of restrictions in state laws, information obtained from the CSRS about patients who are potentially misusing controlled substances cannot be shared with other practitioners without specific consent of the patient.

While the primary purpose of CSRS is to assist practitioners in identifying people who are misusing controlled substances so as to get them into treatment, the system can also be used, under limited situations, to help law enforcement when investigating cases of diversion and misuse. CSRS also helps identify unusual patterns of controlled substance use and can assist law enforcement in identifying forgeries.

Recommendation 4.11

The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services should work with the North Carolina Medical Society, North Carolina Division of Public Health North Carolina Academy of Family Physicians, North Carolina Psychiatric Association, North Carolina Chapter of the American Society of Addiction Medicine, Governor's Institute on Alcohol & Substance Abuse, physician representation from the North Carolina Controlled Substance Reporting System (CSRS) Advisory Committee, and North Carolina Office of the Attorney General to explore options to allow for the exchange of information obtained from the CSRS between health care practitioners.

ww NCGS §90-113.70 et. seq.

Early Intervention Services in Primary Care and Other Settings

The goal of North Carolina's prevention efforts is to reduce the numbers of people who use, abuse, or become dependent on alcohol, tobacco, or other drugs. However, we know that there are people who currently use these substances. Not everyone who uses tobacco products, drinks alcohol, or uses illicit drugs is already addicted. Early interventions may be helpful in reducing the number of occasional users who eventually become dependent.

Primary care providers are ideally situated to screen individuals to identify people who currently use alcohol, tobacco, or other drugs. Once identified, primary care providers can provide counseling and brief treatment about the health risks of using or abusing these substances. Research shows that people are more likely to quit smoking if they are advised to do so by their primary care provider, particularly if this is combined with other treatment and intervention strategies.[85] Similarly, research shows that counseling is an important element of a larger intervention for alcohol and drug use.[86]

Primary care providers are ideally situated to screen individuals to identify people who currently use alcohol, tobacco, or other drugs.

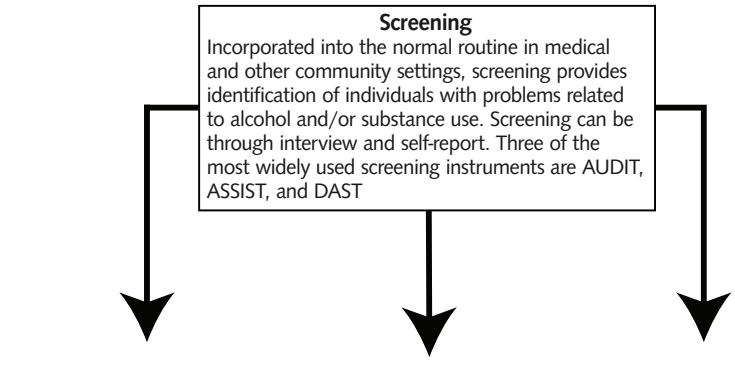
The Substance Abuse and Mental Health Services Agency (SAMHSA) has developed an evidence-based screening and brief intervention or treatment program for individuals who use and are at-risk for substance abuse problems. This program, Screening, Brief Intervention, and Referral to Treatment (SBIRT) has been successful in helping reduce consumption among people who use illegal substances or consume five or more alcoholic beverages in one setting.[xx,87] The program has been tested in emergency departments, primary care providers' offices, hospitals, federally qualified health centers, health departments, and school-based clinics.[88-90]

Under the SBIRT system, providers first screen patients to determine the severity of the person's substance abuse problems and identify appropriate levels of intervention.[88] Providers are trained to offer brief intervention or brief treatment for people who are not yet dependent on alcohol, tobacco, or other drugs. Treatment should include medication assisted therapies, when appropriate. As with other chronic diseases, research has shown that medication can assist in the addiction recovery process in combination with evidence-based behavioral therapies.[91] Those who have more extensive needs are referred into the specialized substance abuse treatment system. Creating linkages and improving coordination of care between primary care providers and substance abuse specialists is critical to the effective treatment of people with substance abuse problems. The SBIRT Core Components are shown in Chart 4.3.

Although SBIRT has been shown to be effective in helping at-risk individuals reduce their use of alcohol, tobacco, or other drugs, providers do not routinely use these strategies.[92] Many providers are unaware of this model and others are unfamiliar with the recommended screening and assessment tools. Others may need

xx For more information on SBIRT, visit the Substance Abuse and Mental Health Services Administration Web site at http://sbirt.samhsa.gov/index.htm.

Chart 4.3
SBIRT Core Components



Brief Intervention
Following a screening result indicating moderate risk, brief intervention is provided. This involves motivational discussion focused on raising individuals' awareness of their substance use and its consequences, and motivating them toward behavioral change. Successful brief intervention encompasses support of the client's empowerment to make behavioral change.

Brief Treatment
Following a screening result of moderate to high risk, brief treatment is provided. Much like brief intervention, this involves motivational discussion and client empowerment. Brief treatment, however, is more comprehensive and includes assessment, education, problem solving, coping mechanisms, and building a supportive social environment.

Referrall to Treatment
Following a screening result of severe dependence, a referral to treatment is provided. This is a proactive process that facilitates access to care for those individuals requiring more extensive treatment than SBIRT provides. This is an imperative component of the SBIRT initiative as it ensures access to the appropriate level of care for all who are screened.

Source: Screening, Brief Intervention, and Referral to Treatment core components. Substance Abuse and Mental Health Services Administration Web site. http://sbirt.samhsa.gov/core_comp/index.htm. Accessed March 27, 2008.

further information about billing strategies to ensure that they can be compensated for the time spent in counseling, assessment, and brief treatment. Others may need help establishing linkages between primary care providers and available substance abuse specialists. The Task Force recommended additional training of health care professionals to encourage them to implement SBIRT in their practices. However, this training must go hand-in-hand with payment reform to enable providers to be reimbursed for their time (discussed more fully in Recommendation 4.15). To educate more providers about SBIRT, the Task Force recommends:

Recommendation 4.12

a) North Carolina health professional schools, the Governor's Institute on Alcohol and Substance Abuse, the North Carolina Area Health Education Centers (AHEC) program, residency programs, health professional associations, and other appropriate organizations should expand as Screening, Brief Intervention, and Referral to Treatment (SBIRT) training for primary care providers and other health professionals in academic and clinical settings, residency programs or other continuing education programs with the goal of expanding the health professional workforce that has demonstrated competencies in SBIRT. The curriculum should include information and skills-building training on:

1) **Evidence-based screening tools to identify people who have or are at risk of tobacco, alcohol, or substance abuse or dependency.**
2) **Motivational interviewing.**
3) **Brief interventions including counseling and brief treatment.**
4) **Assessments to identify people with co-occurring mental illness.**
5) **Information about appropriate medication therapies for people with different types of addiction disorders.**
6) **Successful strategies to address commonly cited disincentives to care for patients in a primary care.**
7) **Strategies to successfully engage people with more severe substance abuse disorders and refer them to specialty addiction providers for treatment services.**
8) **The importance of developing and maintaining linkages between primary care providers and trained addiction specialists to ensure bi-directional flow of information and continuity of care.**

Ideally, early intervention strategies such as SBIRT, or counseling individuals about the risks of using alcohol, tobacco, or other drugs, should occur in the primary care office. National data show 55% of individuals visited a primary care physician at least once during 2005. This far exceeds the percentage of people who seek care for substance abuse services from an office-based provider (0.1%).[yy] While some people may be wary of seeking help for substance abuse problems through specialized mental health or substance abuse providers because of the stigma, there is little stigma attached to care given by primary care providers. Thus, to further encourage primary care providers to incorporate SBIRT into their primary care practices, the Task Force recommends:

yy Source for both: NCIOM calculations using 2005 MEPS. Agency for Healthcare Research and Quality. Substance abuse visits are defined by visits with at least diagnosis for ICD-9 code 303, 304, or 305. This estimate is almost certainly low as both patients and providers may face incentives not to include billing codes related to substance abuse.

Recommendation 4.13 (PRIORITY RECOMMENDATION)

a) The North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) should work collaboratively with the North Carolina Office of Rural Health and Community Care (ORHCC), the Governor's Institute on Alcohol and Substance Abuse, North Carolina Area Health Education Centers (AHEC) program, and other appropriate professional associations to educate and encourage healthcare professionals to use evidence-based screening tools and offer motivational counseling, brief intervention, medication assisted therapies, and referral to treatment to help patients prevent, reduce, or eliminate the use of or dependency on alcohol, tobacco, and other drugs as outlined in the Screening, Brief Intervention, and Referral to Treatment (SBIRT) model.

b) The North Carolina General Assembly should appropriate $1.5 million in recurring funds to DMHDDSAS to work with the aforementioned groups to develop a plan to implement as Screening, Brief Intervention, and Referral to Treatment within primary care and ambulatory care settings. The plan should include:

1) Mental health and substance abuse system specialists to work with the 14 Community Care of North Carolina (CCNC) networks and other provider groups. These staff will work directly with the CCNC practices to implement and sustain evidenced-based practices and coordination of care between primary care and specialty services. This would include but not be limited to the SBIRT model allowing for primary care providers to work toward a medical home model that has full integration of physical health, mental health, and substance abuse services. In keeping with the SBIRT model, the mental health and substance abuse system specialists would work within communities to develop systems that facilitate smooth bidirectional transition of care between primary care and specialty substance abuse care.

2) Efficient methods to increase collaboration between providers on the shared management of complex patients with multiple chronic conditions that is inclusive of mental health, developmental disabilities, and substance abuse. An effective system would smooth transitions, reduce duplications, improve communication, and facilitate joint management while improving the quality of care.

3) A system for online and office-based training and access to regional quality improvement specialists and/or a center of excellence that would help all healthcare professionals identify and address implementation barriers in a variety of practice settings such as OB/GYN, emergency room, and urgent care.

4) Integrated systems for screening, brief intervention, and referral into treatment in outpatient settings with the full continuum of substance abuse services offered through DMHDDSAS.

North Carolina has also developed other promising practices to help address the mental health needs of patients in primary care practices. These models involve co-locating licensed mental health professionals in a primary care practice, or conversely, locating a primary care provider in a mental health practice. Individuals identified with mental health problems can be directly referred to the licensed mental health practitioner who is located in the same facility. Co-location facilitates appropriate referral and treatment and improves coordination of care between the primary care provider and the licensed mental health professional.[93] Patients who are treated in an integrated care setting are more likely to receive preventive care and experience improved health outcomes.[94,95]

The North Carolina General Assembly appropriated nonrecurring funds to the Office of Rural Health and Community Care (ORHCC) to pilot strategies for the Aged, Blind, and Disabled population. A portion of these funds were utilized in SFY 2007 and SFY 2008 to expand access to licensed mental health professionals with primary care providers and to increase access to preventive primary care services for patients served within the specialty mental health system. There are currently 57 primary practices across the state that received state funds to develop mental health co-location models. These models have been successful in offering early intervention services and identifying and treating problems before they reach a crisis. However no further funding has been appropriated to maintain or expand ORHCC work to integrated care.

Co-location of mental health and substance abuse professionals with primary care providers can improve coordination of care and facilitate appropriate referrals and treatment.

The Task Force believed that a similar co-location model was warranted to provide accessible services for people with substance abuse problems. However, rather than develop a whole new initiative that focuses exclusively on people with substance abuse problems in the primary care setting, the Task Force recommended building on the existing successful co-location model. Many people with substance abuse problems also have mental health problems. Thus, the professionals who are trained to address the mental health problems should be cross-trained to identify and provide brief treatment and referrals for people with substance abuse disorders and licensed substance abuse professionals should be similarly trained to identify and provide brief treatment and referrals for people with coexisting mental health problems.

Thus, to support further expansion of co-location models across the state, the Task Force recommends:

Recommendation 4.14

a) The North Carolina Office of Rural Health and Community Care should work in collaboration with the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services; the Governors Institute on Alcohol and Substance Abuse; the ICARE partnership; and other professional associations to support and expand co-location in primary care practices of licensed health professionals trained in providing substance abuse services.

b) The North Carolina General Assembly should provide $750,000 in recurring funds to the North Carolina Office of Rural Health and Community Care to support this effort. Primary care practices eligible for state funding include private practices, federally qualified health centers, local health departments, and rural health clinics that participate in Community Care of North Carolina. Funding can be used to help support the start-up costs of co-location of licensed substance abuse professionals in primary care practices for services provided to Medicaid and uninsured patients. Alternatively, funding may be used to support continuing education of mental health professionals who are already co-located in an existing primary care practice in order to help them obtain substance abuse credentials to be qualified to provide substance abuse services to Medicaid and uninsured

patients with substance use disorders. The goal is to offer evidence-based screening, counseling, brief intervention, and referral to treatment to help patients prevent, reduce, or eliminate the use of or dependency on tobacco, alcohol, and other drugs. Funding priority should be given to practices that meet one or more of the following criteria:

1) **Primary care practices with a co-located mental health professional.**
2) **Primary care practices with a significant population of dually diagnosed patients with mental health and substance abuse problems who have prior experience in screening and intervention for mental health and/or substance abuse problems.**
3) **Primary care practices actively involved in other chronic disease management programs.**

The Task Force strongly supported building on this collaborative model of interdisciplinary care. But the current third-party reimbursement system creates barriers which make it difficult to sustain these models without ongoing state or grant funding. For example, some insurers will not reimburse for brief counseling and referrals.[zz] Some insurers have policies which prohibit paying two professionals for health services rendered at the same location on the same day. In addition, coverage for the treatment of substance abuse is not the same as coverage for other medical conditions.

Approximately 19.2 million US workers (15%) reported using or being impaired by alcohol at work at least once during the last year.[96] Studies have suggested that investments in substance abuse treatment can exceed costs by a ratio of 12 to 1.[97] Yet, under current North Carolina laws, health insurers need only offer a total of $8,000/year in coverage for "chemical dependency" or a lifetime maximum of $16,000.[aaa] Few health plans limit coverage of other health conditions to such a low annual or lifetime limit. Further, many health plans offer this limited substance abuse coverage with higher deductibles or coinsurance. Congress recently passed the Mental Health Parity and Addiction Equity Act as part of the Emergency Economic Stabilization Act of 2008, which should expand third-party coverage of substance abuse services.[bbb] Under the new statute, group health plans must generally provide mental health and substance abuse coverage in parity with medical and surgical

zz The Division of Medical Assistance has recently changed its coverage policy to begin paying for screening and brief intervention. These changes are anticipated to go into effect on January 1, 2009. The changes will include new CPT codes for substance abuse screening and intervention, therapy codes for primary care providers who integrate qualified mental health professionals into their practices, telephone and face-to-face consultations between primary care providers and psychiatrists or other specialists, and allowing for reimbursement on the same day if the patient visits both a medical provider and a licensed mental health or substance abuse professional.

aaa NCGS §§ 58-51-50; 58-65-75, 58-67-70.

bbb Subtitle B—Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008. Public Law 110-343, codified at 29 USC § 1185a, 42 USC § 300gg-5.

benefits.[ccc] The law only applies to employer groups with 50 or more employees and only if the employer offers insurance with mental health coverage. In these instances, the coverage of mental health and substance abuse may not have higher cost sharing (including deductibles, copayments, and annual or lifetime limits) or more restrictive treatment limitations for the mental health and substance abuse coverage than what is provided as part of the medical and surgical benefits. The federal mental health and addiction parity act will become effective for most plans on January 1, 2010.

The North Carolina General Assembly should enact a substance abuse parity law.

In 2007, the North Carolina General Assembly enacted a mental health parity law.[ddd] It applies to all groups, including small employers, which purchase insurance from regulated insurance companies (e.g. it does not cover self-funded or ERISA plans). However, it does not apply to people who are diagnosed with a substance disorder. The North Carolina law went into effect on July 1, 2008.[eee]

Despite these changes in state and federal law, additional actions are needed to ensure complete parity for substance abuse services. The federal law does not apply to employer groups with fewer than 50 employees, and the state law does not provide parity for substance abuse disorders. These barriers need to be addressed to support large-scale expansion of substance abuse early intervention and treatment services by primary care and other providers across the state. Therefore, the Task Force recommends:

Recommendation 4.15 (PRIORITY RECOMMENDATION)

a) The North Carolina General Assembly should mandate that insurers offer coverage for the treatment of addiction diseases with the same durational limits, deductibles, coinsurance, annual limits, and lifetime limits as provided for the coverage of physical illnesses.

b) The North Carolina General Assembly should direct the Division of Medical Assistance, North Carolina Health Choice program, State Health Plan, and other insurers to review their reimbursement policies to ensure that primary care and other providers can be reimbursed to screen for tobacco, alcohol, and drugs, provide brief intervention and counseling, and refer necessary patients for specialty services.

ccc Group health plans can be exempt from this requirement if a licensed actuary demonstrates that the costs of coverage will increase more than 2% in the first plan year or 1% for each subsequent year as a result of this new coverage.

ddd Session Law 2007-268. Under the new state law, North Carolina insurers must provide the same coverage of certain mental health disorders as provided other physical illnesses generally, including bipolar disorder, other major depressive disorder, obsessive compulsive disorder, paranoid and other psychotic disorder, schizoaffective disorder, schizophrenia, post-traumatic stress disorder, anorexia nervosa, and bulimia. In addition, insurers must provide at least 30 days of inpatient and outpatient treatment and at least 30 days of office visits for other mental health disorders. People with substance abuse disorders (recognized as 291.0 through 292.2 and 303.0 through 305.9 of the Diagnostic Manual of Mental Disorders (DSM-IV)) are not eligible for this coverage.

eee Session Law 2007-268, Section 6.

1) Specifically, the plans should provide reimbursement for:
    i) Screening and brief intervention in different health settings including, but not limited to, primary care practices (including OB/GYN, federally qualified health centers, rural health clinics, and hospital-owned outpatient settings), emergency departments, Ryan White Title III medical programs, and school-based health clinics.
    ii) CPT codes for health and behavior assessment (96150-96155), health risk assessment (99420), substance abuse screening and intervention (99408, 99409), and tobacco screening and intervention (99406, 99407) and should not be subject to therapy code preauthorization limits.
    iii) Therapy codes (90801-90845) for primary care providers who integrate qualified mental health professionals into their practices.
    iv) Appropriate telephone and face-to-face consultations between primary care providers and psychiatrists or other specialists. Specifically, payers should explore the appropriateness of reimbursing for CPT codes for consultation by a psychiatrist (99245).
2) Reimbursement for these codes should be allowed on the same day as a medical visit's evaluation and management (E&M) code when provided by licensed mental health and substance abuse staff.
3) Fees paid for substance abuse billing codes should be commensurate with the reimbursement provided to treat other chronic diseases.
4) Insurers should allow psychiatrists to bill using E&M codes available to other medical disciplines.
5) Providers eligible to bill should include licensed healthcare professionals including, but not limited to, primary care providers, mental health and substance abuse providers, emergency room professionals, and other healthcare professionals trained in providing evidence-based substance abuse and mental health screening and brief intervention.

c) The Division of Medical Assistance should work with the Office of Rural Health and Community Care (ORHCC) to develop an enhanced Carolina Access (CCNC) per member per month (PMPM) for co-located practices to support referral and care coordination for mental health, developmental disabilities, and substance abuse services.

d) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, in collaboration with the ORHCC, should work collaboratively with the Governor's Institute on Alcohol and Substance Abuse, Academy of Family Physicians, North Carolina Pediatric Society, North Carolina Psychiatric Association, North Carolina Primary Health Care Association, ICARE, and other appropriate groups to identify and address barriers that prevent the implementation and sustainability of co-location models and to identify other strategies to promote evidence-based screening, counseling, brief intervention, and referral to treatment in primary care and other outpatient settings.

Comprehensive System of Specialized Substance Abuse Services

In an ideal system, people would not become addicted to alcohol, tobacco, or other drugs. Multifaceted prevention strategies would be implemented targeting the general public, individuals at higher risk, and people who have engaged in risky behaviors. Further, there would be a system of early intervention services to intercede before a person becomes addicted to these substances. However, this idealized system does not exist. National estimates show that 6.6% of North Carolinians aged 12 years or older abuse or are dependent on alcohol, and 3% have abused or are dependent on illicit drugs. Combined, 8.5% have abused or are addicted to alcohol or drugs. However, few of the North Carolinians who need treatment received it from the publicly-funded substance abuse system. The North Carolina data from the National Survey on Drug Use and Health showed that 95.5% of those who reported alcohol abuse or dependence needed but did not receive treatment, and 90% of North Carolinians age 12 or older who reported illicit drug dependence or abuse needed but did not receive treatment. This equates to 526,000 who needed but did not receive treatment for alcohol in 2008 and 225,000 North Carolinians who needed but did not receive treatment for illicit drugs.[98,99] (See Table 4.4.)

The failure to seek or stay in treatment has more to do with the treatment system's inability to meet the client's needs rather than the individual's lack of desire to seek help.

Several studies have examined why people who need treatment do not receive it.[100-103] These studies challenge the assumption that the primary reason that individuals with substance abuse problems fail to seek treatment or stay in treatment is their own lack of motivation. Rather, the failure to seek or stay in treatment has more to do with the treatment system's inability to meet the client's needs rather than the individual's lack of desire to seek help.[104] These findings are supported by focus groups conducted in two counties in North Carolina (Dare and Rockingham) with consumers and professionals. Participants in these focus groups noted that alcohol and drug issues were pervasive in their communities, but the system was not adequate to address these needs.[105] Some of the common themes identified in the North Carolina focus groups include:

- ***Stigma.*** Consumers reported that they perceived a stigma in seeking services both from providers who referred the consumers into treatment and from the LME staff directly. Consumers also noted that substance abuse treatment programs treated addicts with different addictions differently.
- ***Services were inadequate or nonexistent.*** Communities lacked a complete continuum of services. Focus group participants particularly noted the lack of inpatient and residential substance abuse treatment and recovery supports needed to help consumers successfully integrate back into the community. A common theme across both communities was the lack of services to treat addicted adolescents.
- ***Workforce and competency issues.*** There are too few licensed substance abuse professionals. Most of the healthcare professionals who work with people with substance abuse problems do not recognize the problem and do not know how to assess, treat, or refer patients into treatment.

Table 4.4
Few North Carolinians Who Need Substance Abuse Treatment Services Are Receiving Services (NSDUH 2005-2006)

	12 or older Estimate	12-17 Estimate	18-25 Estimate	26+ Estimate
North Carolina Population Projections (July, 2008)	8,341,746	1,356,908	1,079,771	5,905,067
Dependence on or Abuse of Illicit Drugs or Alcohol in Past Year	~709,000 (8.5%)	~106,000 (7.8%)	~204,000 (18.9%)	~402,000 (6.8%)
Alcohol Dependence or Abuse in Past Year	~551,000 (6.6%)	~66,000 (4.9%)	~155,000 (14.4%)	~331,000 (5.6%)
Needing but not Receiving Treatment for Alcohol Use in Past Year	~526,000 (95.5%)	~64,000 (95.9%)	~149,000 (95.8%)	~307,000 (92.9%)
Needing and Receiving Treatment for Alcohol Use in Past Year	~25,000 (4.5%)	~2,700 (4.1%)	~6,500 (4.2%)	~23,600 (7.1%)
Illicit Drug Dependence or Abuse in Past Year	~250,000 (3.0%)	~65,000 (4.8%)	~96,000 (8.9%)	~112,000 (1.9%)
Needing but not Receiving Treatment for Illicit Drug Use in Past Year	~225,000 (90.0%)	~62,000 (95.8%)	~84,000 (87.6%)	~94,000 (84.2%)
Needing and Receiving Treatment for Illicit Drug Use in Past Year	~25,000 (10.0%)	~2,700 (4.2%)	~12,000 (12.4%)	~18,000 (15.8%)

Sources: Hughes A, Sathe N, Spagnola, K. State estimates of substance use from the 2005-2006 National Surveys on Drug Use and Health. Tables B.16, B.18, B. 20, B.21, B.22. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies Web site. http://www.oas.samhsa.gov/2k6state/AppB.pdf. Published February 2008. Accessed March 24, 2008. North Carolina population projections (2008) from North Carolina state demographics; North Carolina population by age 2000-2009. North Carolina Office of State Budget and Management Web site. http://demog.state.nc.us/. Accessed March 24, 2008.

- ***Services are too rushed to make a difference.*** People noted that they did not receive services for enough time to make a difference.
- ***Inadequate linkages between detox providers and other substance abuse services.*** Consumers noted that they did not receive referrals out of the detox system.

As noted in Chapter 3, the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services has created a framework for a comprehensive system of treatment and recovery supports that follows the American Society of Addiction Medicine (ASAM) levels of care. Theoretically, each LME should be able to offer a comprehensive array of substance abuse services, depending on the clinical needs of the client. Services that meet the client's needs would be offered

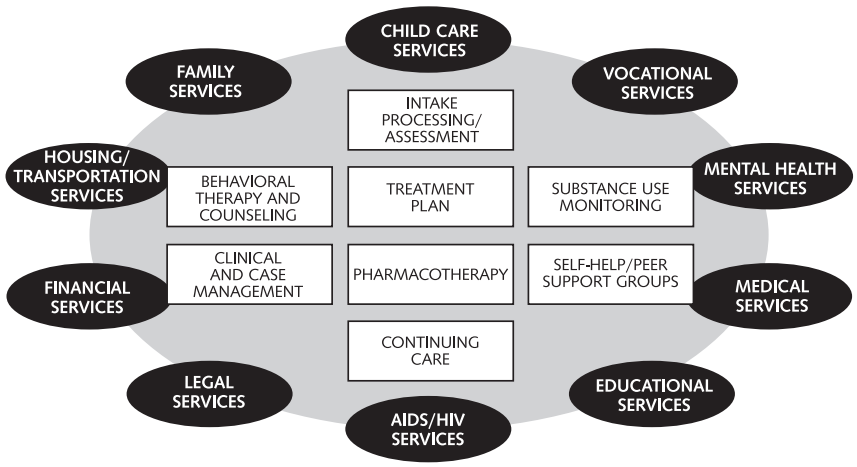
in a timely fashion, and clients would be engaged long enough to address their underlying alcohol, tobacco, or substance abuse problems. A full continuum of services would be available, including screening and assessment, brief intervention, outpatient services, medication management, intensive outpatient and partial hospitalization, clinically managed low-intensity residential services, clinically managed medium-intensity residential treatment, inpatient services, and crisis services including detox. In addition, individuals also need access to recovery supports in order to help individuals live without use of alcohol, tobacco, and other drugs. Recovery supports include, but are not limited to, transportation to and from treatment and other support activities (such as employment), employment services and job training, case management, housing assistance and services, child care, parent education and child development, family and marriage counseling, life skills, education, spiritual and faith-based support, relapse prevention, and self-help and support groups (such as Narcotics Anonymous, Alcoholics Anonymous, or other 12-step groups). Group homes for recovering substance abusers, such as Oxford Houses, are another important type of recovery support. Oxford Houses, started in 1975, are peer-run, responsible for all household expenses, and have a no tolerance policy for use of alcohol or drugs. House residents are expected to participate in recovery programs and are encouraged to complete outpatient treatment and counseling. There is also education on adjusting to living in communities. Research has shown that over the last five years the average rate of success (i.e. five years of sobriety after leaving an Oxford House) for Oxford House alumni has been between 65% and 87%.[106]

A full continuum of care requires prevention, early intervention and engagement, a full continuum of treatment services, and recovery supports. Chart 4.4 shows a recovery-oriented system of care that meets the substance abuse, mental health, physical health, housing, educational, family, employment, and spiritual needs of the individual. This model involves multiple agencies who work together to meet the substance abuse and other needs of the individual and family. Individuals who need substance abuse services will not all need every service listed in the chart. However, a similar array of services should be reasonably available in the community to ensure that people with substance abuse dependence disorders can receive appropriate services based on their needs. Recovery-oriented systems of care incorporate chronic care management approaches, recognizing that individuals with substance abuse disorders may need lifelong assistance in helping them manage their health problem.

Currently, most communities lack an adequate infrastructure to meet all the needs of people with substance abuse disorders, and the availability of services varies across LMEs. Further, services are not always provided in a timely manner. DMHDDSAS tracks the number and percentage of patients within each LME who were determined to need emergent (within two hours), urgent (within 48 hours), and routine services (within 14 days) care, as well as those who received services

Currently, most communities lack an adequate infrastructure to meet all the needs of people with substance abuse disorders, and the availability of services varies across Local Management Entities.

Chart 4.4
Recovery-Oriented System of Care



Source: National Institute for Drug Abuse, Principles of Drug Addiction Treatment.

Local Management Entities ranged from 13% to 100% in the provision of urgent care within the specified time frames…There was wide variation in the provision of routine care, with Local Management Entities ranging from 28% to 90% in the proportion of consumers being served within the required 14-day time frame.

within the prescribed time.[fff] (See Appendix B) Statewide, 43,567 individuals with mental health, substance abuse, or developmental disabilities requested services in the fourth quarter of SFY 2007-2008. A little less than one-fifth (19%) of those requesting services were determined to need emergent care.[ggg] Almost all of the LMEs met this standard for all of the people who were determined to need emergency care. Fifteen percent of the population was determined to need urgent care. Statewide, 79% of these individuals were provided care within 48 hours. However, LME performance varied considerably. LMEs ranged from 13% to 100% in the provision of urgent care within the specified time frames. Statewide, 68% of the cases determined to need routine care were provided a face-to-face assessment

fff Performance standards are based on national measures, when available. For example, the performance standards for timely access to care (emergent, urgent, and routine) and timely follow-up after inpatient care (ADATCs) are based on the Healthcare Enterprise Data Information System (HEDIS) measures, supported by the federal Centers for Medicare and Medicaid Services. The performance standards for timely initiation and engagement in services (two visits in first 14 days, four visits in first 45 days) are based on national standards, Washington Circle Public Sector Workgroup (www.washingtoncircle.org).

ggg Timely access to care includes access for people with substance abuse problems, mental health problems, and developmental disabilities. Timely access measures have been based on Local Management Entities self-reported data. These data are not subject to external verification. With other data, the state calculates the percentages based on claims data. Because of the way these data were collected, Division of Mental Health Developmental Disabilities, and Substance Abuse Services did not have the ability to separate out the timely access measures for people by specific disability (such as those with a substance abuse disorders) at the time of this report. These data problems are being addressed. The data collected in SFY 09 is based on claims data, so can be reported separately for each disability group.

and/or treatment service within 14 calendar days. There was wide variation in the provision of routine care, with LMEs ranging from 28% to 90% in the proportion of consumers being served within the required 14-day time frame.[107]

Best practice guidelines for initiating and engaging consumers into care suggests that an individual receive two visits within the first 14 days of care and then two more in the next 30 days (a total of four visits within 45 days of engagement with the system). The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services sets both LME performance standards and performance targets.[hhh] The current performance contract *standards* are set based on the statewide average in the prior fiscal year. LMEs may be sanctioned for failure to meet these minimum standards. The performance *targets* are set to emphasize high priority areas, while trying to be realistic about what can be achieved in a single year. Under the current performance *targets*, 71% of consumers should receive two visits within the first 14 days of care, and 50% should receive four visits within the first 45 days of care.[iii] Statewide, LMEs are falling short of this target, with only 62% of substance abuse consumers receiving two visits within the first 14 days of care (ranging from 36% to 82% among LMEs). Statewide, 46% of consumers had four visits within the first 45 days of care (ranging from 27% to 63% among LMEs).

Best practice also dictates that individuals should be seen by a community provider within seven days of being released from an institution (or ADATC). DMHDDSAS's performance target for this measure is that 36% of people who leave an ADATC be seen within seven days of release. Despite this low performance target, only 23% of the people who leave an ADATC are seen by a community provider within the first seven days. Again, this varied across LMEs, ranging from 0% to 53%. An additional 15% were seen within 8-30 days of discharge.[108]

Of even greater concern, North Carolina data show that across the state very few people with substance abuse disorders are being treated through the LMEs. (See Table 4.5) The LMEs with the highest percentage served are only serving approximately 11% of the adults or children who need services, whereas the LMEs with the lowest percentage served are serving 5% of adults and only 4% of children who need services.[108]

With the privatization of the mental health and substance abuse system under the state's mental health reform efforts, the availability of services is dependent, in large part, on the willingness of private providers to contract with the LME to provide

The Local Management Entities with the highest percentage served are only serving approximately 11% of the adults or children who need services, whereas the LMEs with the lowest percentage served are serving 5% of adults and only 4% of children who need services.

hhh Division of Mental Health Developmental Disabilities, and Substance Abuse Services sets both performance standards and performance targets. Local Management Entities that meet a certain level of performance based on a composite score across 21 distinctive service-related measures are offered the opportunity for single stream funding, a more flexible funding approach. These performance standards include measures of services access, penetration, initiation, engagement, appropriate state hospital and residential program use, and post-discharge follow-up and continuity of care.

iii The current performance contract standards set achievable bars which push the poorer performing Local Management Entities to reach the level of their colleagues while simultaneously pushing up the overall standard each year. In terms of performance targets, the goal is to continuously raise these targets as statewide performance increases. Over time, Division of Mental Health Developmental Disabilities, and Substance Abuse Services plans to establish best practice benchmarks.

Table 4.5
Few People who Needed Substance Abuse Services were Served in the LMEs with State Funds (April 1, 2008 – June 30, 2008)

Estimated percent of those needing substance abuse services who received them with state funds

	Children		Adults
Durham	**11%**	Southeastern Regional	**11%**
East Carolina Behavioral Health	**10%**	Johnston	**11%**
CenterPoint	**9%**	Five County	**10%**
Five County	**9%**	Pathways	**10%**
Cumberland	**8%**	Albemarle	**10%**
Pathways	**8%**	Western Highlands	**9%**
Sandhills Center	**8%**	Burke-Catawba	**9%**
Western Highlands	**8%**	Smoky Mountain	**9%**
Burke-Catawba	**7%**	Southeastern Center	**9%**
Orange-Person-Chatham	**7%**	Durham	**8%**
Smoky Mountain	**7%**	CenterPoint	**8%**
Southeastern Regional	**7%**	Crossroads	**8%**
Alamance-Caswell-Rockingham	**6%**	Guilford	**8%**
Albemarle	**6%**	Mecklenburg	**8%**
Crossroads	**6%**	East Carolina Behavioral Health	**7%**
Guilford	**6%**	Sandhills Center	**7%**
Onslow-Carteret	**6%**	Orange-Person-Chatham	**7%**
Southeastern Center	**6%**	Alamance-Caswell-Rockingham	**7%**
Beacon Center	**5%**	Foothills	**7%**
Eastpointe	**5%**	Cumberland	**6%**
Mecklenburg	**5%**	Onslow-Carteret	**6%**
Foothills	**4%**	Eastpointe	**6%**
Johnston	**4%**	Beacon Center	**5%**
Wake	**4%**	Wake	**5%**
SFY 2008 Performance Target	**9%**	**SFY 2008 Performance Target**	**10%**
SFY Performance Contract Requirement	**7%**	**SFY Performance Contract Requirement**	**8%**
Statewide Average	**7%**	**Statewide Average**	**8%**

Note: These data do not include the five counties that are part of Piedmont Behavioral Health LME which has not been reporting data to the state. In addition, it does not capture services provided through county appropriations, grant funds, or other funding sources. Some of the larger urban counties, such as Mecklenburg, provide substantial county funding to augment the state appropriations and federal SAPT block grant funds. Services provided through county funds will be reported beginning July 1, 2009.

services. Yet in some regions, substance abuse providers are unwilling to contract with the LME because of administrative and paperwork hassles, low reimbursement, and lack of appropriate service definitions that allow some services to be reimbursed.[jjj] Providers that serve consumers in multiple LMEs have even greater administrative barriers, with different LMEs using different contracts and procedures. DMHDDSAS has developed standardized policies and forms for use by LMEs as a means of reducing barriers.[kkk] Some of the standardized forms and policies include contracts between LMEs and providers of Medicaid and state services, service definitions for Medicaid and state services, the consumer appeal process, the Standardized Consumer STR Interview and Registration Form, the LME Consumer Admission and Discharge Form, the incident report form, and the NC-TOPPS Initial Interview, Update Interview and Episode Completion Interview forms.[lll,mmm] Other providers are unwilling to participate because of low reimbursement rates. Others may want to participate but are unable to because the service is not currently reimbursed by the state. For example, DMHDDSAS does not have a service definition that specifically covers long-term residential or therapeutic communities, potentially leaving out a class of licensed substance abuse providers.

Further, even when services are offered, they may not be provided with the level of intensity needed to help a person achieve sobriety. More than three-quarters (76.6%) of the adults and more than four-fifths of children (84.5%) served in the LME system are receiving the lowest intensity of services (outpatient treatment, Level I of the ASAM levels of care).[nnn,109] Part of the underlying rationale for the mental health reform was to focus treatment on those most in need. However, providing the lowest level of treatment to more than three-quarters of the clients served suggests that the level of services provided is inadequate. DMHDDSAS needs to develop expectations for the LMEs about appropriate numbers of people served, the array of services available, intensity of services, and frequency of treatment.

The ability of the state to address the ongoing needs of people with addiction disorders rests in large part on the performance of the LMEs in engaging people into treatment, keeping people in treatment, and ensuring that people receive the right intensity of services. In turn, the ability of the LMEs to meet their responsibility rests in large part on the availability of a well trained workforce, adequate and flexible

The ability of the state to address the ongoing needs of people with addiction disorders rests in large part on the performance of the Local Management Entities in engaging people into treatment, keeping people in treatment, and ensuring that people receive the right intensity of services.

jjj Task Force members specifically identified reimbursement problems for long-term residential treatment programs and therapeutic communities as well as the adequacy of reimbursement rates for residential treatment and diversion programs. In addition to these issues, the Task Force recommended that the Division evaluate the availability of substance abuse services to determine if changes in service definitions or reimbursement policies could help address shortages in the availability of substance abuse services.

kkk The North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services has a complete list of standardized forms on their website, available at http://www.ncdhhs.gov/mhddsas/statspublications/manualsforms/index.htm#forms.

lll Clark S. Community Policy Management, Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, NC Department of Health and Human Services. Written communication regarding Division of Mental Health Developmental Disabilities, and Substance Abuse Services standardized forms. December 17, 2008.

mmm Stein F. Chief, Community Policy Management, Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, NC Department of Health and Human Services. Written communication regarding Division of Mental Health Developmental Disabilities, and Substance Abuse Services standardized forms. December 17, 2008.

funding sources to provide incentives for qualified providers to appropriately engage and treat people with addiction disorders, technical assistance from DMHDDSA to identify and address barriers to improvement and to transfer successful innovations from one LME to all LMEs and the internal management and leadership skills to promote change. Other states have begun to implement performance-based incentive contracts to improve the capacity of the substance abuse system.[104,110]

The Task Force recommended that DMHDDSAS develop and implement similar performance contracts to incentivize LMEs and providers to improve the substance abuse treatment system. Specifically, LMEs and providers must ensure that substance abuse services are accessible and that consumers receive services when they first seek care. A responsive system will also ensure that consumers are provided appropriate levels (intensity) of services, that they are engaged in treatment for long enough periods of time to be effective, and that they are provided recovery supports. If, with adequate funding, these recommendations do not yield meaningful improvements, then broader system redesign may be necessary.

To monitor performance, LMEs and providers must report standardized screening, triage and referral (STR), NC-TOPPS, consumer data warehouse (CDW) admissions and discharge, consumer perception of care, and IPRS and Medicaid claims data to DMHDDSAS. These data systems are described more fully in Chapter 7.

To ensure that the LME system is effective in treatment people with addiction disorders, the Task Force recommends:

Recommendation 4.16 (PRIORITY RECOMMENDATION)

a) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) should develop a plan organized around a recovery-oriented system of care to ensure that an appropriate mix of substance abuse services and recovery supports for both children and adults is available and accessible throughout the state. The plan should utilize the American Society of Addiction Medicine (ASAM) levels of care. In developing this plan, DMHDDSAS should:

1) Develop a complete continuum of locally and regionally accessible substance abuse crisis services and treatment and recovery supports.

2) Ensure effective coordination of care between substance abuse providers within and between different ASAM levels of care as well as with other health professionals such as primary care providers, emergency departments, or recovery supports.

3) Develop a minimum geographic-based access standard for each service. In developing its plan, DMHDDSAS should identify strategies for building an infrastructure in rural and underserved areas.

4) Include evidence-based guidelines for the number of patients to be served, array of services, and intensity and frequency of the services.

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nnn This lowest level of intensity accounts for approximately one-half of all Local Management Entities spending on adults and about one-third of the spending for children.

b) DMHDDSAS should work with be Local Management Entities and providers to develop a more comprehensive performance-based accountability plan that includes incentives and contract requirements between the Division, LMEs and providers.

   1) The plan should include meaningful substance abuse performance measures for LMEs and providers to ensure that: substance abuse services are successfully extended to a significant portion of those persons in need, substance abuse services are provided to individuals in a timely fashion, people are provided the intensity of services appropriate to their needs, people are engaged in treatment for appropriate lengths of time, individuals successfully complete treatment episodes, and that these individuals are provided appropriate recovery supports.

   2) This plan may include, but not be limited to, financial incentive payments, regulatory and/or monitoring relief, advantages in the competitive bidding process, independent peer review recognition, and broader infrastructure support.

   3) The plan should strengthen the Division's current performance benchmarking system for LMEs, including the establishment of more rigorous performance standards and targets for LMEs.

   4) The plan should develop a similar performance benchmarking system for LMEs to use with providers. The benchmarking system for providers should include, but not be limited to, measures of active engagement, consumer outcomes, fidelity with evidence-based or best practices, client perception of care, and program productivity.

   5) In developing the plan, DMHDDSAS, LMEs and providers should consider other incentive strategies developed by the National Institute on Drug Abuse Blending Initiative.

   6) The plan should include data requirements to ensure that program performance is measured consistently by LMEs and providers across the state.

c) DMHDDSAS should develop a plan to implement electronic health records for providers that use public funds.

d) DMHDDSAS should develop consistent requirements across the state that will reduce paperwork and administrative barriers including but not limited to:

   1) Uniform forms for admissions, screening, assessments, treatment plans, and discharge summaries that are to be used across the state.

   2) Standard contract requirements and a system that does not duplicate paper work for agencies that serve residents of multiple LMEs.

   3) Methods to ensure consistency in procedures and services across LMEs along with methods to enforce minimum standards across the LMEs. Enforcement methods should include, but not be limited to, remediation efforts to help ensure consistent standards.

   4) Standardized outcome measures.

e) **DMHDDSAS should develop a system for timely conflict resolutions between LME and contract agencies.**

f) **DMHDDSAS should work with its Provider Action Agenda Committee to identify barriers and strategies to increase the quality and quantity of substance abuse services and providers in the state. These issues include, but are not limited to, administrative barriers, service definitions, and reimbursement issues.**

g) **DMHDDSAS, in collaboration with the Department of Juvenile Justice and Delinquency Prevention and the Department of Public Instruction, should immediately begin expanding the capacity of needed adolescent treatment services across the state including new capacity in the clinically intensive residential programs, consistent and effective screening, assessment, and referral to appropriate treatment and recovery supports for identified youth. In addition, the plan should systematically strengthen early intervention services for youth and adolescents in mainstream settings such as schools, primary care, and juvenile justice venues.**

h) **DMHDDSAS should report the plans specified in Recommendation 4.16.a-b, report on the progress in developing the plan for electronic health records in Recommendation 4.16.c, and report on progress made in implementing Recommendations 4.16.d-g to the NCIOM Task Force on Substance Abuse Services and the Joint Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse Services no later than September 2008.**

The Task Force also recommends providing enhanced funding on a competitive basis to develop model programs in six LMEs (one rural and one urban in each of the DMHDDSAS three regions). This pilot would implement the recovery-oriented system of care plan, pursuant to Recommendation 4.16, to test and evaluate this system of care before implementing it statewide.

Recommendation 4.17

a) **The North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) should select six county or multi-county regions to develop and implement a recovery-oriented system of care.**

b) **The North Carolina General Assembly should appropriate $17.2 million in SFY 2010 and $34.4 million in SFY 2011 to DMHDDSAS in recurring funding to support these six pilot programs. DMHDDSAS should make funding available on a competitive basis, selecting one rural pilot and one urban pilot in the three DMHDDSAS regions across the state. Funding should include planning, evaluation, and technical assistance. The pilot programs should:**

   1) **Identify those in need of treatment.**

   2) **Ensure or provide a comprehensive continuum of services for adolescents and adults. Services should include screening, counseling, brief treatment, and the full spectrum of American Society of Addiction Medicine (ASAM) services for both adolescents and adults.**

3) **Provide recovery supports for those who return to their communities after receiving substance abuse specialty care, including Oxford Houses or other appropriate recovery supports. The goal of the project is to reduce the length and duration of relapses that require additional specialty substance abuse care. Programs should work closely with existing recovery services, programs, and individuals and build on the foundations that exist in their local communities.**

4) **Ensure effective coordination of care between substance abuse providers within and between different ASAM levels of care as well as with other health professionals such as primary care providers, hospitals, or recovery supports.**

c) **The North Carolina General Assembly should appropriate $750,000 of the Mental Health Trust Fund or general appropriations to the DMHDDSAS to arrange for an independent evaluation of these pilot programs. The evaluation should compare the performance of the pilot programs to comparison (control) counties to determine whether the comprehensive pilot programs lead to increased number of patients served, timely engagement, active participation with appropriate intensity of services, and program completion.**

d) **The DMHDDSAS should use the findings from the independent evaluation of the pilot programs implementing county or multi-county recovery-oriented systems of care to develop a plan to implement the successful strategies statewide. The plan should be presented to the Legislative Oversight Committee on Mental Health within six months of when the evaluation is completed.**

The Task Force also recognized that any effort to reform the state's publicly-funded substance abuse system would fail without the proper infrastructure. As noted in Chapter 3, with the state's mental health reform DMHDDSAS was reorganized with few staff who concentrated solely on substance abuse services. Thirteen new staff positions are needed in the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services to implement the Task Force's recommendations, including one full-time employee (FTE) recovery supports director, two FTE adult substance abuse treatment continuum regional consultants, one FTE DWI consultant, one substance abuse prevention services information system manager, two quality management substance abuse research analysts, three substance abuse prevention services and coalition development regional consultants, and three child and adolescent substance abuse treatment continuum regional clinical consultants.[ooo] (See Appendix C for more description of position responsibilities).

ooo A total of $650,000 in recurring funds is needed for 13 new FTE positions. This would be matched with an additional $325,000 in federal Medicaid funds. The funding would be used to support seven positions on the Best Practice Team and two positions on the Quality Management Team. These positions would cost approximately $75,000 each (including benefits) for a total of $675,000, of which approximately $350,000 would be required from state-supported sources and $325,000 through Medicaid match. Four additional positions are needed for the Prevention and Early Intervention Team at an anticipated cost of $75,000 each. This totals $300,000. Medicaid matching funds are not available for these positions.

Additionally, staff are needed in other state agencies to implement other Task Force recommendations.[ppp] Thus the Task Force recommends:

Recommendation 4.18 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly should appropriate:

a) $650,000 in recurring funds to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services to hire 13 FTE staff to assist in developing and implementing a statewide comprehensive prevention plan, a recovery-oriented system of care, a plan for performance-based incentive contracts, and consistent standards across the state to reduce paperwork and administrative barriers; oversee and provide technical assistance to the pilot programs; and otherwise help implement the Recommendations 4.1-4.3, 4.9-4.10, 4.13, 4.14-4.17, and Recommendation 5.1, supra.

b) $100,000 in recurring funds to the Department of Public Instruction to hire staff to implement Recommendations 4.1-4.3 and 4.16 above.

c) $130,000 in recurring funds to Office of Rural Health and Community Care to hire a statewide coordinator and administrative support to work directly with the regional Community Care of North Carolina quality improvement specialists funded in recommendation 4.13 and to assist in implementing recommendation 4.14.

d) $81,000 in recurring funds and $50,000 in nonrecurring funds to the Department of Health and Human Services, Division of Medical Assistance, to hire five positions to implement Recommendations 4.13-4.15 above.

ppp The Division of Medical Assistance needs a total of $81,000 in recurring funds to support five new positions. Two of these positions would be clinical positions with expertise in substance abuse who would be assigned to the Behavioral Health Section, working in collaboration with the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, the Office of Rural Health and Community Care, and the Division of Public Health in the planning, development, and implementation of the recommendations. The other three positions would be in the support sections of Rate Setting, Information Technology, and Program Integrity. The $81,000 in state funds would be matched by federal funds. An additional $50,000 is needed, in nonrecurring funds, to support programming changes at the Division of Medical Assistance's fiscal agent (EDS). This will allow the state to add new codes and service definitions to support changes in payments to providers.

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