

**NORTH CAROLINA INSTITUTE OF MEDICINE  
TASK FORCE ON SUBSTANCE ABUSE SERVICES**

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**INTERIM REPORT TO THE NORTH CAROLINA GENERAL ASSEMBLY  
MAY 2008**

The North Carolina Institute of Medicine is a nonpolitical source of analysis and advice on important health issues facing the state. The NC IOM convenes stakeholders and other interested people from across the state to study complex and often controversial health issues. The goal of these studies is to identify workable solutions to improve health, healthcare access, and quality of healthcare in North Carolina.

The full text of this report is available online at: <http://www.nciom.org>

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## ACKNOWLEDGEMENTS

The North Carolina Institute of Medicine's (NC IOM) Task Force on Substance Abuse Services was created at the request of the North Carolina General Assembly in 2007. The General Assembly directed the NC IOM to study the substance abuse services system in North Carolina and to present an interim report and recommendations to the 2008 General Assembly, and a final report to the 2009 General Assembly. The work of the Task Force is being led by 3 co-chairs, including Dewayne Book, MD, Medical Director, Fellowship Hall, Representative Verla Insko, North Carolina House of Representatives, and Senator Martin Nesbitt, Jr., JD, North Carolina Senate. There are 51 additional Task Force members, including legislators, state and local agency officials, substance abuse providers and other healthcare professionals, consumers and other interested people, who dedicated approximately one day a month for the last 7 months to study this important issue. Another 12 people participated in the Task Force's work as steering committee members. The steering committee members helped shape the meeting agendas and identify speakers, and gave important input into the interim report and recommendations. The accomplishments of this Task Force would have not been possible without the combined effort of the Task Force and steering committee members. For a complete list of Task Force members and Steering Committee members, please see pages 6-9 of this report.

The NC IOM Task Force on Substance Abuse Services heard presentations from state and national experts on substance abuse and the substance abuse system. Their presentations helped to inform the work of the Task Force. We want to thank the following people for sharing their expertise with the Task Force: Thomas Babor, PhD, MPH, Professor, Physicians Health Services Chair in Community Medicine and Public Health, University of Connecticut Health Center; Dewayne Book, MD, Medical Director, Fellowship Hall; Spencer Clark, MSW, Community Policy Management Section, NC Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS); Chris Collins, MSW, Program Consultant, Office of Rural Health and Community Care; Steve Day, Executive Director, Technical Assistance Collaborative; David Friedman, PhD, Director, Addiction Studies Program, Wake Forest University; Misty Fulk, MEd, CSAPC, ICPS, Director of NC Operations, Community Choices; Phillip Graham, DrPH, MPH, Senior Public Health Researcher, RTI International; Sara McEwen, MD, MPH, Interim Executive Director, Governor's Institute on Alcohol and Substance Abuse; Phillip Mooring, MS, CSAPC, LCAS, Executive Director, Families in Action; Bonnie Morrell, Best Practices Team Leader, Head, Crisis Services, DMHDDSAS; Janice Petersen, PhD, Director, Office of Prevention, DMHDDSAS; Thomas Savidge, MSW, CEO

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The North Carolina Institute of Medicine served as staff for the Task Force. Pam Silberman, JD, DrPH, President and CEO of the North Carolina Institute of Medicine, and Mark Holmes, PhD, Vice President of the North Carolina Institute of Medicine, helped lead the staff effort and assisted in writing sections of the report. In addition to their work, Berkeley Yorkery, MPP, Project Director, Jennifer Hastings, MS, MPH, Project Director and Director of Communications, and Daniel Shive, MSPH, Research Assistant, helped write sections of the report. Phyllis Blackwell, Assistant Managing Editor of the *North Carolina Medical Journal* and Christine Nielsen, MPH, Research Assistant, took the lead on editing the report. Kimberly Alexander-Bratcher, MPH served as the Project Director for the Task Force's work, and was assisted by Thalia Fuller, Administrative Assistant, who helped with meeting logistics.

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## EXECUTIVE SUMMARY

Dependence on alcohol, tobacco, and other drugs is a complex and costly *chronic illness*. Despite a widespread perception that substance abuse and addiction represent a failure of an individual's morals,<sup>1</sup> scientists now know that drug addiction is a brain disorder. Although this disorder is triggered by the use of substances, there are predisposing genetic and environmental factors that can make some people more susceptible to addiction.

Addiction disorders are remarkably similar to other chronic diseases. People with addiction disorders have similar adherence and relapse rates as do people who have asthma, type 2 diabetes, or hypertension. Chronic diseases, including substance abuse disorders, are generally lifelong conditions. They are not “cured” in the acute care sense. Instead, the goal of treatment is to *manage* them so that the burden on the individual—and to the healthcare system, the workplace, and society in general—is minimized as much as possible.

In North Carolina, there are more than 250,000 people aged 12 years or older who report illicit drug dependence, and more than twice as many (550,000) who report alcohol dependence or abuse.<sup>2</sup> Yet fewer than 10% of those with dependence on illicit drugs and fewer than 5% of those with alcohol dependence or abuse received treatment in North Carolina (SFY 2007) from providers funded through the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS), the lead agency charged with coordinating prevention, treatment, and recovery supports. Many individuals with substance abuse problems either do not recognize they have a problem or do not seek treatment. Even those who do seek treatment are not always able to get the services they need when they need them or with the intensity needed to successfully address their problem. Further, people with substance abuse problems need ongoing recovery supports to help prevent relapse.

DMHDDSAS has primary responsibility for the coordination of substance abuse services throughout the state. Most of the direct provision of publicly-funded substance abuse services is managed by Local Management Entities (LMEs). Services are also offered through, or in collaboration with, many other agencies throughout the state. Overall, North Carolina spent \$138 million in 2006 to fund the public substance abuse service system in the state, a sum that left North Carolina substance abuse services underfunded in relation to other states.<sup>3</sup> A report presented to the North Carolina General Assembly in 2007 estimated it would take an additional \$35 million in

**Dependence on alcohol, tobacco, and other drugs is a complex and costly chronic illness**

**Alcohol and  
drug abuse  
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North Carolina  
economy over  
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direct and  
indirect  
costs in 2004**

appropriations to achieve parity with national per capita funding for substance abuse services.<sup>4</sup>

Substance abuse carries both direct and indirect costs to society. In addition to the direct costs of prevention, treatment, and recovery supports, there are indirect costs associated with motor vehicle accidents, premature death, comorbid health conditions, disability, lost productivity, crime, unemployment, poverty, homelessness, and a host of other social problems. Alcohol and drug abuse cost the North Carolina economy over \$12.4 billion in direct and indirect costs in 2004.<sup>5</sup> In 2005, more than 5% of all traffic accidents in the state were alcohol-related, and these accidents accounted for 26.8% of all crash-related fatalities.<sup>6</sup> Alcohol and drug-related crimes also consume a large amount of criminal justice resources, with most of the people entering prisons (63%) needing substance abuse treatment.<sup>7</sup> The rate of drug possession arrests has hovered over 400 per 100,000 population for the past 10 years,<sup>8</sup> and there were over 70,000 DWI cases adjudicated in the state court system in SFY 2005.<sup>9</sup>

The North Carolina General Assembly asked the North Carolina Institute of Medicine (NC IOM) to convene a task force to study substance abuse services in the state (SL-2007-323 §10.53A) and to present an interim report with recommendations to the 2008 General Assembly and the final report and recommendations to the 2009 General Assembly. The Task Force is cochaired by: Dwayne Book, MD, Medical Director, Fellowship Hall; Representative Verla Insko, Representative District 56, North Carolina House of Representatives; and Senator Martin L. Nesbitt Jr., JD, Senator District 49, North Carolina Senate. It includes 63 other members including other legislators, state and local agency officials, substance abuse providers, other health professionals, consumers, educators, and other knowledgeable and interested individuals. In addition, the work of the Task Force is guided by a 12-member steering committee. The Task Force met 7 times between October 2007 and April 2008 and will continue to work over the next 9 months to develop the final report to the North Carolina General Assembly.

Most of the Task Force's work focuses on developing a comprehensive system of care to provide evidence-based interventions based on a person's need. This comprehensive system begins with a strong prevention effort, targeted at adolescents and young adults. Targeting youth and young adults will help reduce the number of people who later become addicted, as evidence shows that people who initiate substance use in childhood or adolescence are more likely to later become addicted. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), communities can save 4

to 5 dollars for every 1 dollar they spend on substance abuse prevention.<sup>10</sup> The following is a summary of the Task Force's prevention recommendations. The full recommendations are included in the report in Chapter 4. Priority recommendations are noted in bold.

- **Recommendation 4.1  
(PRIORITY RECOMMENDATION)**  
The North Carolina General Assembly should appropriate \$1,945,000 in SFY 2009 and \$3,722,000 in recurring funds in SFY 2010 to the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMHDDSAS) to develop a comprehensive state and local substance abuse prevention plan. Of these funds, \$1,770,000 (SFY 2009) and \$3,547,000 (SFY 2010) would be used 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 to Local Management Entities (LMEs), selecting 1 rural pilot and 1 urban pilot in the 3 MHDDSAS regions across the state. Eligible LMEs must develop a comprehensive plan that includes a mix of evidence-based strategies, and should include a wide array of community partners. \$250,000 should be allocated from Mental Health Trust fund to evaluate these pilots and, if successful, to recommend roll-out to other parts of the state.
- Recommendation. 4.2  
The North Carolina General Assembly should direct the State Board of Education, Office of Non-Public Education, NC Community College system, and University of North Carolina system to review existing substance abuse prevention, early intervention, treatment and referral plans and report on these plans to the General Assembly.
- Recommendation 4.3  
The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services; Division of Public Health; Division of Alcohol Law Enforcement; and Department of Public Instruction should develop a plan to further reduce tobacco and alcohol sales to minors.

**Communities  
can save 4 to 5  
dollars for  
every 1 dollar  
they spend on  
substance abuse  
prevention**

**Increasing the tobacco tax has been shown to reduce smoking, particularly among children and youth**

- **Recommendation 4.4  
(PRIORITY RECOMMENDATION)**  
In order to further reduce youth smoking, the North Carolina General Assembly should increase the tobacco tax per pack to the national average. Increasing the tobacco tax has been shown to reduce smoking, particularly among children and youth. The increased fees should be used exclusively to support prevention and treatment efforts for alcohol, tobacco, and other drugs.
- **Recommendation 4.5**  
The North Carolina General Assembly should appropriate \$1.5 million to support Quitline NC.
- **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.
- **Recommendation 4.7  
(PRIORITY RECOMMENDATION)**  
In order to reduce underage drinking, the North Carolina General Assembly should increase the excise tax on beer. Beer is the alcoholic beverage of choice among youth, and youth are sensitive to price increases. In addition, the excise taxes on beer 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 exclusively to support prevention and treatment efforts for alcohol, tobacco, and other drugs. \$2.0 million of the funds raised through the new taxes should support a comprehensive alcohol awareness education and prevention campaign aimed at changing cultural norms to prevent initiation and reduce underage alcohol consumption and to reduce alcohol abuse or dependence among adults.
- **Recommendation 4.8**  
The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services; Division of Public Health; Division of Social Services; and other providers should develop a prevention plan to prevent alcohol spectrum

disorders and report the plan to the Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse Services no later than July 1, 2009.

Early screening and intervention strategies are needed for people who start to engage in risky behaviors but who have not yet become addicted. Without early intervention services, these individuals are likely to progress to worse stages of abuse and/or dependence. SAMHSA has developed an evidence-based screening, brief intervention, and referral into treatment (SBIRT) program for individuals who are at risk for substance abuse problems. 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.<sup>11</sup> The Task Force's recommendations focus on educating primary care and other providers about the SBIRT model or other strategies to encourage providers to identify and treat people with substance abuse disorders. A summary of the Task Force's recommendations in this area are as follows:

- **Recommendation 4.9**  
North Carolina health professional schools, the Governor's Institute on Alcohol and Substance Abuse, the NC Area Health Education Centers program, residency programs, health professional associations, and other appropriate organizations should expand training for primary care providers and other health professionals in academic and clinical settings, residency programs, or other continuing education programs on screening, brief treatment, and referral for people who have or are at risk of tobacco, alcohol, or substance abuse or dependency.
- **Recommendation 4.10 (PRIORITY RECOMMENDATION)**  
**The North Carolina General Assembly should appropriate \$1.5 million in recurring funds to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services to work with the Office of Rural Health and Community Care, Governors Institute on Alcohol and Substance Abuse, and Area Health Education Centers program to expand use of SBIRT in Community Care of North Carolina (CCNC) networks and other primary care and outpatient settings.**

**Early screening and intervention strategies are needed for people who start to engage in risky behaviors but who have not yet become addicted**

- **Recommendation 4.11**  
The North Carolina General Assembly should direct the NC Division of Medical Assistance and NC Health Choice to pay for annual wellness visits for children and adolescents, and to pay for annual screenings for tobacco, alcohol, and drug use beginning at age 11.
- **Recommendation 4.12**  
The North Carolina General Assembly should appropriate \$750,000 in recurring funds to the Office of Rural Health and Community Care. Funding can be used to help support co-location of licensed substance abuse professionals in primary care practices, or to provide cross-training for mental health professionals who are already co-located in an existing primary care practice for services provided to Medicaid and uninsured patients. 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.

- **Recommendation 4.13 (PRIORITY RECOMMENDATION)**  
**The North Carolina General Assembly should mandate that insurers offer the same coverage for treatment of addiction diseases as for other physical illnesses. Insurers should reimburse for substance abuse screening, intervention, and treatment services whether offered through primary care providers or specialized substance abuse providers. Insurers should also reimburse for telephone consultations by psychiatrists, as well as for mental and behavioral health services provided on the same day as medical services are provided.**

**Individuals with more severe problems need different levels of treatment offered through the specialized substance abuse system**

Individuals with more severe problems need different levels of treatment offered through the specialized substance abuse system. Substance abuse services are generally provided through private providers under contract with Local Management Entities (LMEs). LMEs screen people to determine eligibility and need for services and then help these individuals access appropriate services. DMHDDSAS has established performance standards to ensure that people with substance abuse problems can obtain timely services with the frequency needed to address their problems.

LMEs currently do not serve most of the people who have substance abuse disorders. In fact, the LMEs that are serving the highest percentage of people who need services are only reaching 8.6% of the estimated number of children who need services and only 10.9% of the estimated number of adults who need services; the LMEs reaching the lowest percentage of people in need are only serving 3.5% of the estimated number of children and 4.4% of the adults who need services. LMEs also vary in their ability to meet the state's performance standards for timely initiation of treatment and ongoing engagement in the substance abuse system. Further, even when services are offered, they may not be provided with the level of intensity needed to help a person achieve sobriety.

The Task Force recognizes that individuals with substance abuse problems should have access to a full continuum of services 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 them live without use of alcohol, tobacco, and other drugs. To achieve this goal, the Task Force recommends:

- **Recommendation 4.14  
(PRIORITY RECOMMENDATION)**  
**The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services should develop plan for a recovery oriented system of care for adults and adolescents, ensure that services are available and accessible across the state, and are coordinated among different providers. DMHDDSAS should develop plans for performance based incentive contracts to encourage LMEs to ensure timely engagement, active participation in treatment, retention, program completion, and participation in recovery supports. In addition, DMHDDSAS should identify barriers and strategies to increase the quality and quantity of substance abuse providers in the state including, but not limited to, electronic health records, reduced paperwork, streamlined administrative processes, expanded service definitions, and adequacy of reimbursement rates. DMHDDSAS should also immediately begin expanding the capacity of adolescent treatment services across the state.**

**Individuals with substance abuse problems need access to a full continuum of services**

**North  
Carolina  
needs good  
data to make  
informed  
policy choices**

- **Recommendation 4.15**  
The North Carolina General Assembly should appropriate \$17.2 million in SFY 2009, \$34.4 million in recurring funds in SFY 2010 to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services. DMHDDSAS should make funding available on a competitive basis to Local Management Entities (LMEs) to support 6 pilot programs to implement county or multi-county comprehensive recovery oriented system of care. DMHDDSAS should select 1 rural and 1 urban pilot in the 3 MHDDSAS regions across the state. The North Carolina General Assembly should appropriate \$750,000 of Mental Health Trust Funds to independently evaluate these projects and, if successful, build a plan to expand systems across the state.
  
- **Recommendation 4.16  
(PRIORITY RECOMMENDATION)**  
**The General Assembly should appropriate funding for staffing in state agencies to support these recommendations, including:**
  - **\$650,000 in recurring funds to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services to hire 13 FTE staff;**
  - **\$130,000 in recurring funds to the NC Office of Rural Health and Community Care to hire a statewide coordinator and administrative support to work with CCNC networks to implement substance abuse screening, brief intervention, and referral into treatment.**
  - **\$81,000 in recurring funds and \$50,000 in non-recurring funds to the Division of Medical Assistance to assist with new service definitions and Medicaid reimbursement; and**
  - **\$100,000 in recurring funds to the Department of Public Instruction to hire staff to work on substance abuse prevention.**

The Task Force also examined the data needs of the state. North Carolina needs good data to make informed policy choices. Not only does the state need to enhance its data collection capacity, it also needs to enhance its analytic capability to better identify needed changes in the existing substance abuse service system. A summary of the Task Force’s recommendations regarding data is listed below. The full text of these recommendations is found in Chapter 5 of the report.

- **Recommendation 5.1**  
The North Carolina General Assembly should appropriate \$1.2 million in recurring funds to DMHDDSAS to enhance and expand current data system. Funding should be used to develop an information technology plan, including adoption of electronic health records, and to develop additional analytic capacity and undertake studies to understand systemic patterns and barriers to identification, referral, and engagement of consumers in treatment.
- **Recommendation 5.2**  
The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services should work with other agencies, including the Departments of Juvenile Justice and Delinquency Prevention, Corrections, and other Health and Human Services agencies to collect comprehensive data on substance abuse prevention and treatment services and people served with public funds. Further, the North Carolina General Assembly should adopt an equalization formula to ensure that Local Management Entities receive comparable funding to achieve equity in access to care and services.

The importance of a comprehensive substance abuse delivery system cannot be overstated. Our failure to adequately prevent, treat, and provide recovery supports to people with addiction problems has huge implications to our state. We can no longer afford to stigmatize and ignore people with addiction problems. Rather, we need to work together to ensure that appropriate evidence-based education, prevention, treatment, and recovery resources are available and accessible throughout the state. This will take the involvement of many different agencies, providers, and treatment professionals. This interim report provides a roadmap that can be used to ensure that comprehensive publicly-funded substance abuse services are available throughout the state. More work is needed to examine substance abuse workforce issues, financing options (including performance-based contracts to reward positive outcomes), and the availability and adequacy of services offered through other public and private organizations. The Task Force will continue to meet over the next 9 months to study these issues and will prepare a final report for the 2009 General Assembly.

**We need to work together to ensure that appropriate evidence-based education, prevention, treatment, and recovery resources are available and accessible throughout the state**



# CHAPTER 1

## INTRODUCTION

### OVERVIEW OF SUBSTANCE ABUSE PROBLEMS IN NORTH CAROLINA

According to 2005-2006 National Survey on Drug Use and Health (NSDUH) data, 7.7% of North Carolinians 12 years of age and older reported illicit drug use in the past month, and 19.5% reported past month alcohol binge drinking.<sup>2</sup> Using 2008 population projections, this translates into approximately 642,000 individuals 12 years or older reporting illicit drug use, and 1.63 million individuals reporting alcohol binge drinking. A smaller, but still substantial, number of people reported dependence or abuse problems. Three percent of the state's population aged 12 years or older reported illicit drug dependence or abuse in the past year (approximately 250,000 people), and 6.6% reported alcohol dependence or abuse (approximately 550,000 people). The same survey reports that the treatment gap (those individuals needing, but not receiving, treatment during the past year) for illicit drug users 12 years and older was approximately 225,000 and for alcohol binge drinkers was 526,000 (in 2008 population numbers). In total, only about 10% of those who needed treatment for illicit drug use received it, and less than 5% of those who needed treatment for alcohol dependence or abuse received it. Prescription drug abuse is a significant problem in North Carolina as well as nationally: the study revealed that over 400,000 North Carolinians aged 12 years or older used pain relievers non-medically in the past year.

**550,000 North Carolinians abuse or are dependent on alcohol**

**250,000 North Carolinians are dependent on illicit drugs**

Alcohol and drug use varies by age and typically peaks between the ages of 18 and 25. Approximately 37.7% of high school students in North Carolina reported past month alcohol use, and 19% reported current marijuana use. Over 20% of high school students report first using alcohol before the age of 13.<sup>12</sup> These statistics are especially troubling because it has been shown that brain development and maturation is incomplete during this period and exposure to substances can cause long-term changes in brain function.

The prevention, diagnosis, and treatment of substance abuse is difficult for several reasons. A large percentage of individuals with substance abuse problems do not recognize that they have a problem. Similarly, many of those who know they have a problem do not seek treatment. In fact, national estimates suggest that nearly 90% of people who abuse or are dependent on alcohol or illicit drugs never seek treatment.<sup>13</sup> The few who do seek treatment often encounter problems accessing it due to service availability or cost. The general medical setting has not played a large role in the substance abuse treatment

**North Carolina  
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relation to  
other states**

system despite the fact that, if identified early and treated appropriately, substance use disorders can be successfully managed without further progression.

Only 6% (\$66.8 million) of the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) expenditures in 2005 were for substance abuse services for 42,000 people.<sup>14</sup> Overall, North Carolina spent \$138 million in 2006 to fund the public substance abuse service system in the state, a sum that left North Carolina substance abuse services underfunded in relation to other states.<sup>3</sup> A report presented to the North Carolina General Assembly in 2007 estimated it would take an additional \$35 million in appropriations to achieve parity with national per capita funding for substance abuse services.<sup>4</sup>

Substance abuse carries both direct and indirect costs to society. In addition to the direct costs of prevention, treatment, and recovery supports, there are indirect costs associated with motor vehicle accidents, premature death, comorbid health conditions, disability, lost productivity, crime, unemployment, poverty, homelessness, and a host of other social problems. Alcohol and drug abuse cost the North Carolina economy over \$12.4 billion in direct and indirect costs in 2004.<sup>5</sup> In 2005, more than 5% of all traffic accidents in the state were alcohol-related, and these accidents accounted for 26.8% of all crash-related fatalities.<sup>6</sup> Alcohol and drug-related crimes also consume a large amount of criminal justice resources. There were over 70,000 DWI cases adjudicated in the state court system in SFY 2005<sup>9</sup> and the rate of drug possession arrests has hovered over 400 per 100,000 population for the past 10 years.<sup>8</sup> Nationwide, half of all state prison inmates were under the influence of drugs or alcohol at the time of their offense, and nearly 1 in 6 state inmates committed a crime to support a drug habit.<sup>15</sup>

The importance of a comprehensive substance abuse delivery system cannot be overstated. State efforts that ensure appropriate and evidence-based education, prevention, treatment, and recovery resources can minimize the myriad problems associated with substance abuse and dependence.

**TASK FORCE ON SUBSTANCE ABUSE SERVICES**

The North Carolina General Assembly asked the North Carolina Institute of Medicine (NC IOM) to convene a task force to study substance abuse services in the state (SL-2007-323 §10.53A). The Task Force is cochaired by Dwayne Book, MD, Medical Director, Fellowship Hall; Representative Verla Insko, Representative District

56, North Carolina House of Representatives; and Senator Martin L. Nesbitt Jr., JD, Senator District 49, North Carolina Senate. It includes 63 other Task Force and Steering Committee members. (See pages 2-6 for a complete listing of Task Force and Steering Committee members.) The North Carolina General Assembly charged the Task Force with 9 goals, specifically:

1. Identifying the continuum of services needed for treatment of substance abuse services including, but not limited to, prevention, outpatient services, residential treatment, and recovery support.
2. Identifying evidence-based models of care or promising practices in coordination with the North Carolina Practice Improvement Collaborative (NC PIC) for the prevention and treatment of substance abuse services and developing recommendations to incorporate these models into the current substance abuse service system of care.
3. Examining different financing options to pay for substance abuse services at the local, regional, and state levels.
4. Examining the adequacy of the current and future substance abuse workforce.
5. Developing strategies to identify people in need of substance abuse services, including people who are dually diagnosed as having mental health and substance abuse problems.
6. Examining barriers that people with substance abuse problems have in accessing publicly-funded substance abuse services and explore possible strategies for improving access.
7. Examining current outcome measures and identifying other appropriate outcome measures to assess the effectiveness of substance abuse services.
8. Examining the economic impact of substance abuse in North Carolina.
9. Making recommendations on the implementation of a cost-effective plan for prevention, early screening, diagnosis, and treatment of North Carolinians with substance abuse problems.

## **The North Carolina General Assembly charged the Task Force with 9 goals**

The Task Force was directed to develop an interim report for the 2008 session with the final report due before the convening of the 2009 General Assembly (Section 10.53A of Session Law 207-323).

### **INTERIM REPORT**

This interim report captures the work of the Task Force for the 6 months between October 2007 and March 2008. During this time, the Task Force met monthly and discussed the following topics:

<u>Date</u>	<u>Topics</u>
October 15, 2007	<ul style="list-style-type: none"> <li>• Overview of Task Force charge</li> <li>• Substance abuse as a chronic illness</li> <li>• Introduction to North Carolina's publicly-funded substance abuse system</li> </ul>
November 16, 2007	<ul style="list-style-type: none"> <li>• Continuum of services needed to treat addiction</li> <li>• Evidence-based substance abuse prevention and treatment models</li> <li>• Data collected by the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services</li> </ul>
December 10, 2007	<ul style="list-style-type: none"> <li>• Evidence-based prevention strategies for adolescents and substance abuse improvement models (NAITX.net)</li> <li>• Panel of North Carolina providers highlighting successful substance abuse treatment and prevention programs operating in the state</li> </ul>
January 14, 2008	<ul style="list-style-type: none"> <li>• Strategies to identify people in need of substance abuse services</li> <li>• Screening, Brief Intervention, Referral, and Treatment (SBIRT)</li> <li>• Primary care and mental health co-location and integration models</li> </ul>
February 15, 2008	<ul style="list-style-type: none"> <li>• Data on evidence-based prevention strategies for adolescents operating in North Carolina</li> <li>• Recovery-oriented systems of care</li> <li>• Discussion of potential recommendations</li> </ul>
March 14, 2008	<ul style="list-style-type: none"> <li>• Crisis services</li> <li>• Care provided in hospital emergency departments for people with substance abuse problems</li> <li>• Discussion of potential recommendations</li> </ul>
April 24, 2008	<ul style="list-style-type: none"> <li>• Prioritizing recommendations</li> <li>• Adoption of interim report and recommendations</li> </ul>

The interim report includes 6 chapters, the first being this brief introduction. Chapter 2 describes how substance abuse and dependency is a chronic illness, similar to other chronic illnesses such as diabetes or asthma. Chapter 2 also describes how the use of alcohol and drugs as a child or adolescent impacts brain development. Finally, Chapter 2 examines the influence of risk and protective factors on addictive behavior. Chapter 3 describes the current public substance abuse prevention and treatment system in North Carolina, focusing on services provided by the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services and by Local Management Entities. Chapter 4 describes the array of services needed to address alcohol and substance abuse problems as well as the gaps in the current delivery system. Chapter 4 also focuses on prevention and some early intervention services. Additional services will be discussed in the final report (2009). Chapter 5 provides an overview of existing substance abuse data as well as the identifiable data gaps. Chapter 6 summarizes the Task Force's interim recommendations as well as the additional issues that will be addressed in the final report. For example, over the next 9 months, the Task Force will be examining workforce issues, varying financing options, and the availability and adequacy of substance abuse services offered through other public agencies.



## CHAPTER 2

### ADDICTION IS A CHRONIC DISEASE

Before considering the current state of the North Carolina substance abuse system and how it might be improved, it is important to understand what scientists currently know about addiction and substance abuse, including its causes, risk factors, physiologic effects, and—most critically—treatment.

#### SUBSTANCE ABUSE DISORDERS

Although some substances are patently illegal, others are illegal only for certain age groups (eg, alcohol and tobacco), while others are legal *per se* but are misused (eg, prescription drugs, prescription cough syrup, aerosol cans used for huffing). Some are drugs while others are best considered substances. For the purposes of this report, “substances” will be the generic term used to describe drugs, alcohol, and other substances.

Modest use of some of these substances may not pose a public health problem. For example, some studies suggest that very moderate use of alcohol not only has few adverse health effects but may, in some circumstances, improve health (eg, occasional consumption of a glass of red wine).<sup>16-18</sup> It is important to differentiate between *abuse* and *dependence*. *Abuse* refers to misuse of a substance (usually in terms of quantity/frequency) which puts the individual at risk of a variety of harms (eg, injury, job loss, family disruption, sexual assault, and a host of medical conditions). One example would be binge drinking. *Dependence*, however, entails an emotional and physiological dependence on the substance abuse in which the individual loses control over alcohol use or drug-taking behavior despite the adverse, and often very dramatic, consequences in his or her life.<sup>1</sup> This is commonly called addiction.

In the past, addiction or dependence on alcohol, tobacco, or other drugs has often been viewed as a sign of moral failure. A 1998 editorial in the *American Journal of Psychiatry* acknowledged this history and pointed out how much remains to be done:

American psychiatry has made remarkable progress in recategorizing the addictive disorders from moral failures to brain diseases, but the need for community education continues. The concept of moral failure is by no means gone from the discussion of addictive disorders, as evidenced by our country’s investment in criminal justice rather than treatment, including the denial of health insurance parity for addictive

**Scientists who study the brain recognize addictive disorders as brain diseases, not moral failures on the part of people with addictions**

disorders and the court ruling that alcoholism among military personnel was “willful misconduct,” not a disease.<sup>19</sup>

**Some people  
are more  
susceptible to  
addiction  
disorders than  
others due to  
genetic and  
environmental  
factors**

Despite this widespread perception that substance abuse and addiction represent a failure of an individual’s morals,<sup>1</sup> scientists now know that drug addiction is, in fact, a brain disorder. Although this disorder is triggered by the use of substances, there are predisposing genetic and environmental factors that can make some people more susceptible to addiction. Genetics accounts for approximately one-half of the likelihood that an individual becomes an addict, a finding similar to other chronic illnesses.<sup>a, 20</sup> (See Table 2.1.) Use of addictive substances brings satisfaction to the user while creating physical changes in a specific brain circuit. Over time, most substances yield ever lower levels of satisfaction as they alter the physiology of the brain. Physiologic effects from substance abuse may endure for long periods after the substance use is curtailed. For example, the brain activity of a monkey that is cocaine-abstinent for 227 days is more like one that is abstinent for 3 days than of one that has never been exposed to cocaine.<sup>1</sup> That is, changes induced by long-term drug use far outlast drug use. This highlights the importance of avoiding exposure to these substances in the first place as well as interventions that take the brain physiology of addiction into account by trying to curtail drug use as soon as possible after it starts.

An additional physiologic consideration that is important in the development of drug use in adolescents is the late development of the prefrontal cortex region of the brain. This is the section of the brain that controls long-term decision making such as the trade-off between a small reward now (eg, getting high) and a large reward in the future (eg, going to college). This region of the brain typically does not fully develop until around age 25, so adolescents are particularly vulnerable to the allure of drug use. In addition, substance abuse can actually alter the normal maturation of the brain. Thus, the brains of young people respond differently to drugs than the brains of adults. The younger drug use starts, the greater the likelihood of addiction.

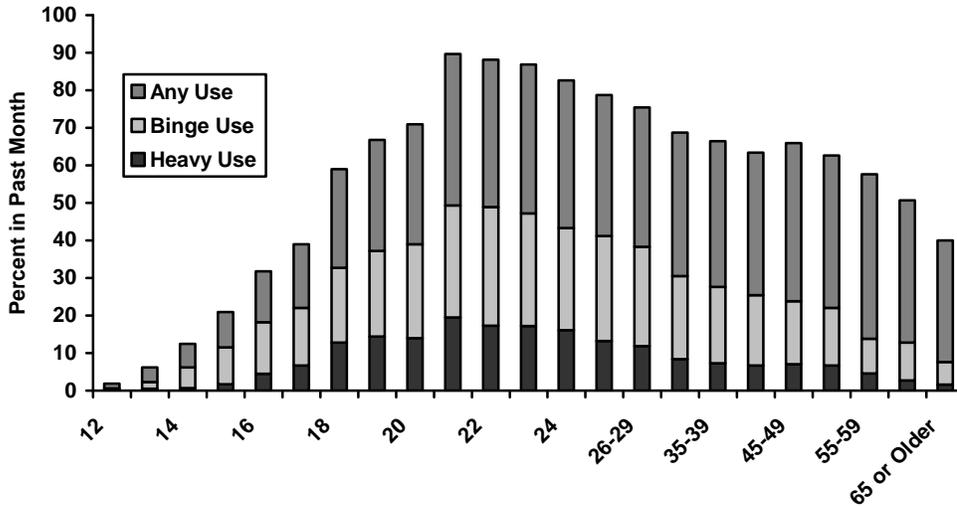
Recent findings about how the adolescent brain develops make it clear that adolescents and young adults are at highest risk for addiction if they begin abusing drugs. Young adults have the highest rates of alcohol use while adolescents and young adults have the highest rates

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<sup>a</sup> Scientists ascertain the degree to which a disease is genetically determined by comparing outcomes among identical twins. These twins studies conclude that genetics plays a similar role for substance abuse addiction disorders, asthma, type 2 diabetes, and hypertension, leading to between roughly one-third and one-half of the total causes of the disease.

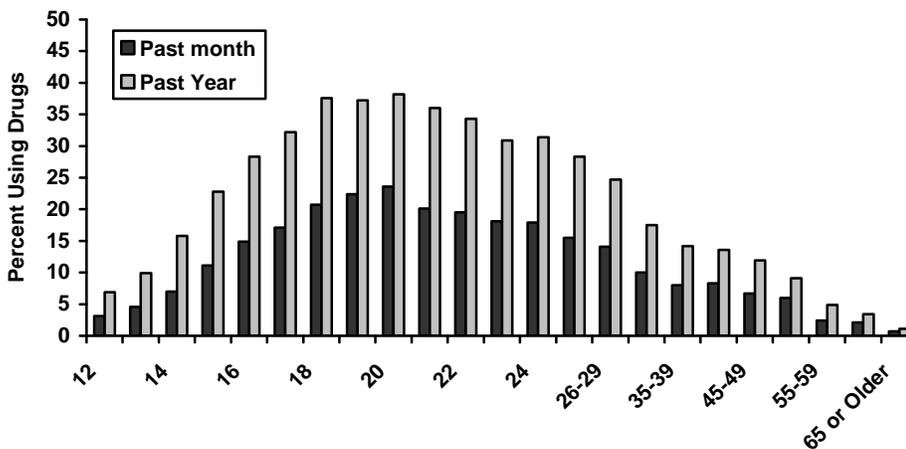
of current drug use (ie, drug use in the previous month). (See Charts 2.1 and 2.2.)

**Chart 2.1**  
**Use of Alcohol is Highest Among Young Adults**



Source: Substance Abuse and Mental Health Services Administration. *Results From the 2006 National Survey on Drug Use and Health: National Findings*. Rockville, MD: Department of Health and Human Services; 2007. DHHS publication SMA 07-4293.

**Chart 2.2**  
**Use of Drugs is Highest Among Adolescents and Young Adults**



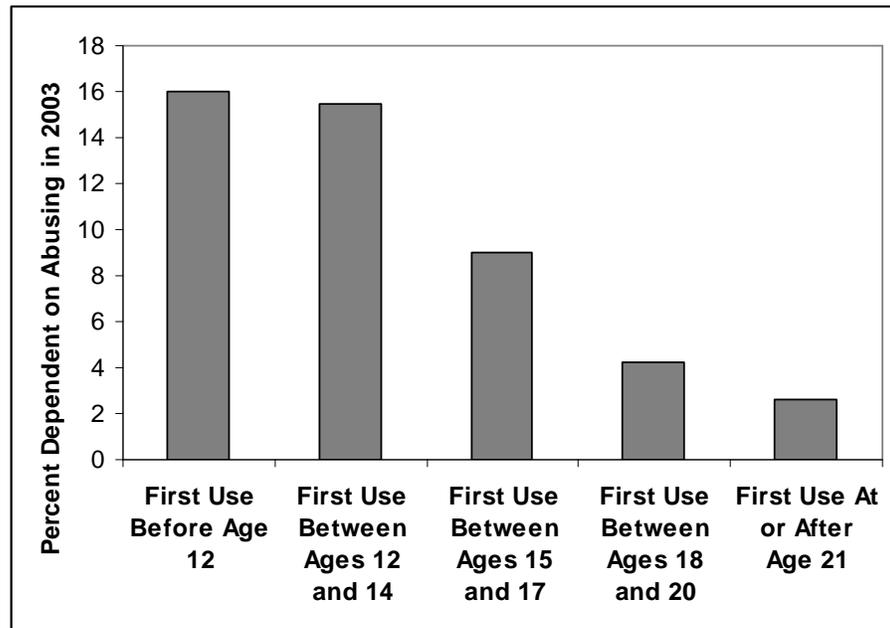
Source: Substance Abuse and Mental Health Services Administration. *Results From the 2006 National Survey on Drug Use and Health: National Findings*. Rockville, MD: Department of Health and Human Services; 2007. DHHS publication SMA 07-4293.

More disturbing is the effect early use has on long-term addiction. As an example, the age at first use of alcohol is closely associated with the

**The age at first use of alcohol is closely associated with the likelihood of abuse or drug dependence later in life**

likelihood of abuse or drug dependence later in life. (See Chart 2.3.) While nearly one-sixth of those first using alcohol at age 14 or younger will eventually become dependent, less than 3% of those first using at age 21 or older are similarly afflicted. The combination of high prevalence of use and abuse and the inherent vulnerability of the adolescent brain suggest of future abuse and dependence suggests that targeting prevention efforts specifically at adolescents may be the most effective use of scarce prevention dollars.

**Chart 2.3**  
**Early Initial Use of Alcohol is Associated with Higher Risk of Abuse or Dependence**



Source: Substance Abuse and Mental Health Services Administration. *The NSDUH Report: Alcohol Dependence or Abuse and Age at First Use*. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2004.

**TREATING SUBSTANCE ABUSE AS A CHRONIC ILLNESS**

There is a common misconception that treatment for substance use disorders does not work. This is because individuals with substance use disorders are generally not permanently “cured” even after undergoing an episode of treatment. Many individuals with addiction disorders experience periods of decreased use and/or sobriety during treatment, followed by relapse into use or abuse. It may take an average of 5-7 serious attempts for sobriety to persist. The percentage of those who are able to maintain abstinence drops from 100% to 70% within the first month and to 40% by the end of the third month post-treatment. People seeking treatment may experience a number of periods of relapse before they gain the motivation and build the skills

needed to resist substance use and to replace substance-using activities with constructive behaviors. They may need to establish new relationships before being able to live for long periods of time in recovery. If viewed from the perspective of the acute care model—where health problems are treated and cured (eg, penicillin for strep infection)—this pattern of addiction, treatment, recovery, relapse, and later treatment would rightly be categorized as a failure. However, this chronic relapsing pattern is not surprising or unexpected if we view addiction disorders as we do other chronic illnesses.

Scientists and healthcare professionals who study brain chemistry and addiction disorders have now recognized that addiction is indeed a *chronic, relapsing disease with no complete cure*. According to the chronic care model, the appropriate and effective healthcare system approach seeks to manage the chronic disease process because it can not be cured.<sup>21</sup> Addiction is just like other chronic diseases such as diabetes, high blood pressure, and asthma. These chronic diseases can not be cured in the acute care sense. Instead, the goal of treatment is to *manage* them so that the burden on the individual—and to the healthcare system, the workplace, and society in general—is minimized. While the ultimate goal is to help the people live without alcohol, tobacco, or other substances, the more immediate goal is to decrease use per episode or increase the length of time between episodes of use and, in so doing, improve functioning (including avoiding legal problems, keeping a job, and improving family dynamics). The availability of treatment is directly related to improvement in public health and safety as well as to reductions in health costs. Treatment also helps the work environment. Studies show that reported job problems such as incomplete work, absenteeism, tardiness, work-related injuries, mistakes, and disagreements among employees are cut by an average of 75% among employees who have received treatment.<sup>22</sup>

This approach is just like the approach used to treat people with other chronic diseases such as diabetes. There is no cure for diabetes. Instead, the immediate goal is to help people manage their diabetes so they minimize the negative impact of their disease on their body to avoid complications such as heart disease, blindness, kidney failure, or amputation of feet and legs. The goal is to develop a system of care that helps people manage their chronic condition and prevent the acute symptoms of their disease and the later far more expensive and life-threatening complications.

Understanding that addiction is a chronic illness is important when evaluating the effectiveness of individual treatment or the substance abuse treatment system as a whole. For example, suppose a treatment

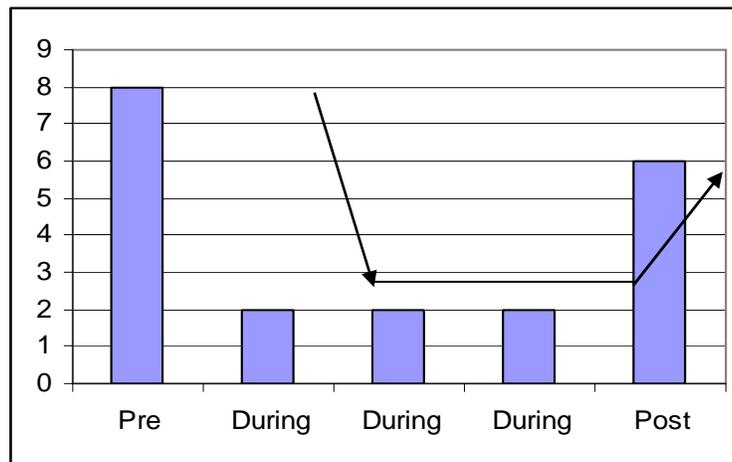
**Addiction is like other chronic diseases such as diabetes, high blood pressure, and asthma**

**The goal of any chronic disease system should be help people manage their chronic conditions to prevent more expensive and life-threatening complications**

for some chronic disease led to the outcomes shown in Chart 2.4. Prior to the treatment, the individual had a high level of symptoms. During treatment, the symptoms were diminished. This suggests that treatment is effective and is the kind of evidence the FDA looks for when evaluating new drugs and other therapies. For most therapies, the increase in symptoms after the treatment is stopped (post) is further evidence that treatment is effective. Unfortunately, this is not how we have viewed substance abuse treatments. Even though drug use diminishes during treatment, if it reoccurs after treatment, we take that as evidence that treatment has failed. This curious dichotomy between how we view most treatments and how we view substance abuse treatment has led us to believe that substance abuse treatment is ineffective even though it is just as effective, or even more effective, than treatments for diabetes, hypertension, and asthma.

What has become clear is that addicts aren't any different than patients with other chronic disorders. Data show that some do well because they closely adhere to treatment guidelines. Others fail to heed those guidelines and end up in emergency rooms or back in treatment. No one would tell someone with a second heart attack that he could not have any more treatment because he didn't change his eating or exercise habits. However, recovering addicts who lapse or relapse back into drug use are routinely thrown out of treatment programs.

**Chart 2.4  
Chronic Care Treatment Outcomes**



Source: McLellan T. Reconsidering addiction treatment: have we been thinking correctly? Presentation to the North Carolina Joint Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse; October 31, 2007; Raleigh, NC.

Treatment for any chronic illness, including substance abuse disorders, is much more effective if the patient adheres to the treatment protocol,

prescribed medications, and recommended follow-up care. Many people think that people with substance abuse disorders are less likely to adhere to their treatment regimens and more likely to relapse than people with other chronic illnesses. However data do not support this conclusion. People with substance abuse disorders have similar adherence and relapse rates as those with asthma, type 2 diabetes, or hypertension. (See Table 2.1.) Adherence rates may vary widely across specific types of treatments (eg, adherence to medication is generally higher than adherence to treatments like diet and/or exercise), but adherence is generally similar across all types of chronic illnesses. Furthermore, factors decreasing adherence to treatment—such as poverty, lack of family support, and co-occurring psychiatric conditions—are similar across all 4 diseases.

**People with substance abuse disorders have similar adherence and relapse rates as those with asthma, type 2 diabetes, or hypertension**

**Table 2.1  
Substance Abuse Similarity to Other Chronic Diseases  
in Adherence to Treatment, Relapse, and Genetic Heritability**

Chronic Disease	Substance Abuse	Asthma	Diabetes	Hypertension
Adherence	~60%	60%	<40%	<40%
Relapse/Recurrence	40%-60%	50%-70%	30%-50%	50%-70%
Genetic Inheritability	.34-.61	.36-.70	.30-.55	.25-.50
Controllable Risk Factors?	Yes	Yes	Yes	Yes
Uncontrollable Risk Factors?	Yes	Yes	Yes	Yes
Cure?	No	No	No	No
Clear Diagnostic Criteria?	Yes	Yes	Yes	Yes
Research-based Treatment Guidelines and Protocols?	Yes	Yes	Yes	Yes
Effective Patient and Family Education?	Yes	Yes	Yes	Yes
Parity With Other Medical Conditions?	No	Yes	Yes	Yes

Sources: McLellan AT, Lewis DC, O'Brien CP, Kleber HD. Drug dependence, a chronic medical illness: implications for treatment, insurance, and outcomes evaluation. *JAMA*. 2000;284(13):1689-1695. Gilmore JD, Lash SJ, Foster MA, Blosser SL. Adherence to substance abuse treatment: clinical utility of two MMPI-2 scales. *J Pers Assess*. 2001;77(3):524-540. Comparisons among alcohol-related problems, including alcoholism, and other chronic diseases. Ensuring Solutions to Alcohol Problems, George Washington University Medical Center Web site. [http://www.ensuringsolutions.org/usr\\_doc/Chronic\\_Disease\\_Comparison\\_Chart.pdf](http://www.ensuringsolutions.org/usr_doc/Chronic_Disease_Comparison_Chart.pdf). Accessed September 28, 2007.

**Creating  
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The fact that addicts are treated differently, despite the similar adherence and relapse rates, is evidence that we have not been dealing with addicts fairly. A treatment failure for any other chronic conditions would be a reason to change treatment options or increase the intensity of treatment. For addicts, it is a reason to dismiss them from treatment. Creating successful treatment systems for people with addiction disorders will require a paradigm shift, one that recognizes and treats addicts the same as any other person with a chronic illness.

## CHAPTER 3

### PUBLICLY-FUNDED SUBSTANCE ABUSE SERVICES

Many public agencies provide services aimed at preventing, reducing, or treating people with substance abuse problems. The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS), within the NC Department of Health and Human Services, is the lead agency charged with coordinating prevention, treatment, and recovery supports. Services are also offered through or in collaboration with the Department of Correction, Administrative Office of the Courts, Division of Motor Vehicles, Department of Juvenile Justice and Delinquency Prevention, Division of Social Services within the NC Department of Health and Human Services, Department of Public Instruction, North Carolina Community College System, and the University of North Carolina system. In addition, Medicaid pays for substance abuse services for some people. However many people with substance abuse disorders are not eligible for Medicaid. These individuals often rely on the publicly-funded system of care, or pay for services out of pocket, as most third-party insurers offer limited coverage of substance abuse services.<sup>b, 13</sup> This chapter provides an overview of the structure of the publicly-funded substance abuse system, focusing on services offered through DMHDDSAS and local agencies. A brief summary of the services offered through other agencies is provided at the end of this chapter.

#### DIVISION OF MENTAL HEALTH, DEVELOPMENTAL DISABILITIES, AND SUBSTANCE ABUSE SERVICES

The primary source of federal funding for substance abuse services comes from the Substance Abuse Prevention and Treatment (SAPT) block grant provided by the federal Substance Abuse and Mental Health Services Agency (SAMHSA). North Carolina received approximately \$46.2 million in SAPT funds in SFY 2008. In addition, the North Carolina General Assembly appropriated \$26.1 million for the 3 Alcohol and Drug Abuse Treatment Centers (ADATCs) and \$28.1 million to DMHDDSAS to provide substance abuse services across the state.

In order to get federal SAPT funds, states must designate a “single state authority.” The single state authority is responsible for planning, administering and overseeing the SAPT funds, under guidelines

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<sup>b</sup> Nationally, most insured employees (88%) had some coverage for substance abuse treatment services in 2006. However, coverage of substance abuse treatment services is typically much more limited than for other medical-surgical benefits, and cost sharing is much higher.

**The primary source of federal funding for substance abuse services comes from the Substance Abuse Prevention and Treatment (SAPT) block grant provided by the federal Substance Abuse and Mental Health Services Agency (SAMHSA)**

**The NC Division of Mental Health, Developmental Disabilities, and Substance Abuse Services has primary responsibility for managing the publicly funded substance abuse system**

established by SAMHSA. The North Carolina General Assembly (NCGA) designated the North Carolina Department of Health and Human Services as the single state authority. Day-to-day management of substance abuse services was placed in the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services. As its name suggests, DMHDDSAS oversees the care provided to people with mental health, developmental disabilities, and substance abuse problems. The NCGA established the structure of DMHDDSAS, along with the target populations and services offered. In the past, DMHDDSAS employees focused on 1 of these 3 disability areas. With mental health system reform, employees were reorganized into sections that cut across all 3 disability areas.<sup>c</sup> The Community Policy Management (CPM) section of DMHDDSAS is charged with overseeing substance abuse services, as well as mental health and developmental disability services. CPM staff members work in 1 of 5 cross-disability teams, including: Best Practice and Community Innovations, Local Management Entities (LMEs) Systems, Justice Systems Innovations, Quality Management, and Early Intervention and Prevention. DMHDDSAS now has very few employees that focus exclusively on 1 of the 3 disability areas.

DMHDDSAS establishes policies for the target populations to be served, structure of the delivery system, covered services, data collection, and monitoring, under broad guidelines established by SAMHSA, the Centers for Medicare and Medicaid Services (CMS), and the North Carolina General Assembly.

*Target populations:* According to SAMHSA estimates, there were approximately 709,000 North Carolinians (8.5% of the population age 12 and older) who had illicit drug or alcohol dependence or abuse or both in 2005-2006.<sup>d,23</sup> Of these, 250,000 (3.0%) were estimated to have illicit drug dependence or abuse, and 551,000 (6.6%) were estimated to have alcohol dependence or abuse. Only 10% or less of these individuals with alcohol or substance abuse addictions received treatment. According to SAMHSA, approximately 225,000 people with illicit drug dependence or abuse (90%) needed but did not receive treatment for illicit drug use, and 526,000 people with alcohol dependence or abuse (95%) needed but did not receive treatment for their alcohol problems.<sup>e</sup>

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<sup>c</sup> The 5 cross-disability sections include State Operated Services (SOS), Community Policy Management (CPM), Resource Regulatory Management (RRM), Advocacy and Customer Services (ACS), and Operations Support (OS).

<sup>d</sup> Illicit drugs include marijuana, hashish, cocaine, heroin, hallucinogens, inhalants, and prescription drugs that are used non-medically.

<sup>e</sup> SAMHSA defines needing but not receiving treatment as people who were classified as needed treatment for either illegal drugs or alcohol but who did not

Under state law, DMHDDSAS is required to target services to those most in need.<sup>f,24</sup> The targeted adult population includes individuals who have a primary diagnosis of a substance abuse disorder who are or have been:

- Injecting drug users or individuals with communicable diseases
- Pregnant women or women with dependent children under age 18
- Criminal justice offenders
- Parents of children in the Division of Social Services (DSS) Child Protective Services System or parents who are receiving Work First payments
- People arrested for Driving While Impaired (DWI)
- High management clients (eg, individuals who have been involuntarily committed, admitted to or discharged from an inpatient hospital or residential treatment facility, a state operated hospital or ADATC, or a non-hospital medical or social setting detox facility, have a diagnosis of a stimulant drug, or who have a substance abuse use pattern of recurring episodes of chronic use with unsuccessful attempts at recovery)
- Deaf and hard of hearing
- Homeless
- Those who require treatment engagement and recovery services and supports

**The target populations are broadly defined to include anyone who has a substance abuse or dependency diagnosis**

The target populations are broadly defined to include anyone who has a substance abuse or dependency diagnosis. Individuals who are part of a target population can receive the level of services that is proximate to their level of severity, within the full range of publicly-funded substance abuse services.

Children and adolescents who are in the targeted population include youth (under age 18) with a primary diagnosis of a substance-abuse related disorder who are or have been:

- Pregnant
- Criminal justice offender
- Arrested for Driving While Impaired
- Enrolled in the MAJORS Substance Abuse/Juvenile Justice Program

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receive treatment from a specialty facility (including drug or alcohol rehabilitation facility, hospital, or mental health center).

<sup>f</sup> DMHDDSAS has further defined priority populations within these broad categories of targeted adult and child populations based on federally-established priorities. These include adult and adolescent pregnant injecting drug users, adult and adolescent pregnant substance abusers, and adult and adolescent injecting drug users.

**Substance abuse services are generally provided through private providers under contract with LMEs**

In addition, other groups of youth are eligible for preventive services. These include adolescents who are at-risk of substance abuse or who are currently using alcohol or other drugs at pre-clinical levels. To qualify under this category, the youth must: have experienced (in the last 6 months) documented school related problems or negative involvement with law enforcement; or have one or both parents or guardians with one or more child abuse and neglect investigations or substantiated reports; or have parents with documented substance-related disorders.

*Structure of the Delivery System:* With certain limited exceptions, DMHDDSAS does not provide services directly. Substance abuse services are generally provided through private providers under contract with LMEs. The only services provided directly through DMHDDSAS include substance abuse services offered through the 4 state psychiatric hospitals<sup>g</sup> or the 3 Alcohol and Drug Treatment Centers (ADATCs).<sup>h</sup> The state psychiatric hospitals provide inpatient mental health services for people with mental illness, and include services for individuals dually diagnosed with mental health and substance abuse problems. The ADATCs provide detoxification services, behavioral health crisis stabilization, and acute and intensive inpatient treatment.

Most of the direct provision of publicly-funded substance abuse services is managed by the LMEs. There are 25 LMEs that oversee and manage care provided to individuals at the community level. (See Appendix A for a listing of LMEs and counties that they cover.) LMEs must cover a population of at least 200,000 residents or a 5-county area. Most LMEs cover multiple counties, but some of the larger counties have single-county LMEs.

LMEs are responsible for providing or assuring 24-hour 7-day a week access to the MHDDSAS system. (See Chart 3.1.) LMEs have qualified substance abuse professionals who, either through telephone or in-person contact, screen individuals to determine eligibility and need for services. Individuals who have an emergency are referred immediately into crisis services. Others will be screened further to determine if they are a member of a target population or whether they are Medicaid-eligible. Every person is eligible for 8 hours of community support services without prior authorization. This allows a

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<sup>g</sup> The 4 state psychiatric hospitals are Broughton Hospital (Morganton), Cherry Hospital (Goldsboro), Dorothea Dix Hospital (Raleigh), and John Umstead Hospital (Butner).

<sup>h</sup> The ADATCs are Julian F. Keith ADATC (Black Mountain), Walter B. Jones ADATC (Greenville), and R. J. Blackley ADATC (Butner).

provider to assess the individual's needs, and work with the individual and family (as appropriate) to develop a Person-Centered Plan.<sup>i</sup> Providers can also begin to offer treatment and support services as part of the 8 hours of community support, which allows the provider to begin providing care without delay while seeking authorization for services. The LMEs authorize state-funded services for non-Medicaid-eligible individuals, and Value Options authorizes services for Medicaid-eligible individuals.<sup>25</sup> In addition to the initial screening, LMEs must recruit providers, establish contracts with local or regional substance abuse providers, approve the Person-Centered Plans for individual clients, and establish local Consumer and Family Advisory Committees.

In general, LMEs do not provide direct services (aside from the initial screening, crisis services, and case management). However, if private providers are not adequately available in the community, they can receive approval from DMHDDSAS to provide one or more of the following core services: community support, social setting and non-hospital medical detoxification, residential day treatment, and day treatment in homeless shelters.<sup>26</sup>

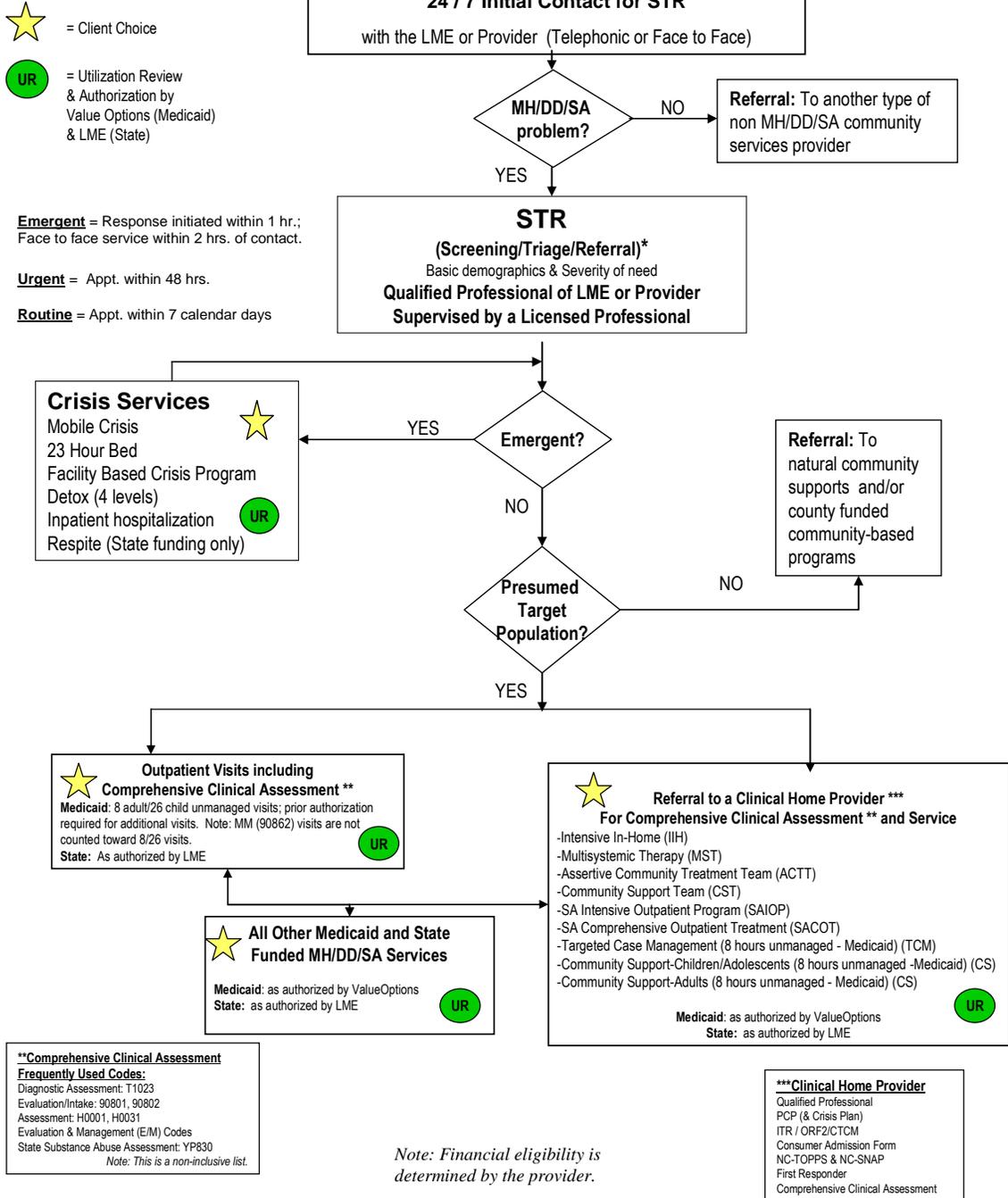
**LMEs must screen consumers to determine need, recruit providers, approve the Person-Centered Plans for individual clients, and establish local Consumer and Family Advisory Committees**

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<sup>i</sup> The Person-Centered Plan is expected to follow consumers from provider to provider, but there is currently no electronic mode to transfer the plan as the consumer moves from one provider to another.

# Chart 3.1

## ACCESSING CARE: A Flow Chart for New Medicaid and New State Funded Consumers



*Services:* DMHDDSAS has established policies for what substance abuse services can be covered and reimbursed. DMHDDSAS also developed an array of authorized services to ensure a full continuum of services needed for people with or at risk of addiction disorders. These service definitions were developed in collaboration with the Division of Medical Assistance in order to ensure that most of the services are also Medicaid reimbursable. DMHDDSAS’s allowable services include a range of services recommended by the American Society of Addiction Medicine (ASAM).<sup>j</sup>

DMHDDSAS and the LMEs are required to provide preventive services aimed at youth and adolescents in order to prevent or reduce the use of tobacco, alcohol, and other drugs. In addition, individuals in the target population are also eligible for an initial assessment to develop a Person-Centered Plan. Some of the specific services that can be provided as part of the Person-Centered Plan include outpatient services, medication assisted treatment, intensive outpatient and partial hospitalization, clinically managed low-intensity residential services, clinically managed medium-intensity residential treatment, inpatient services, crisis services including detox, and recovery supports.

- *Preventive services:* Prevention activities are designed to prevent or reduce the use of tobacco, alcohol, and other drugs. They may be targeted to the whole community (“universal”), to people who have risk factors that make them more likely to engage in these unhealthy behaviors (“selective”), or to individuals who have started using these substances, but who have not yet become dependent or addicted (“indicated”). Evidence-based prevention programs are discussed more fully in Chapter 4.
- *Assessment:* A face-to-face evaluation of a recipient’s substance abuse condition is used to develop a Person-Centered Plan. The assessment should include a recommendation as to whether the consumer falls into one of the target populations; a description of the person’s general health, behavioral health history, and presenting problems; and the individual’s strengths and weaknesses across a variety of biological, psychological, familial, social, developmental, and environmental dimensions.

**DMHDDSAS  
has established  
policies for  
what substance  
abuse services  
can be covered  
and reimbursed**

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<sup>j</sup> The American Society of Addiction Medicine (ASAM) is an international organization of physicians with a mission to increase access and improve the quality of addiction treatment. ASAM developed widely recognized guidelines for placement, continued stay, and discharge of patients with alcohol and other drug problems. ASAM also developed a continuum of services for adults and children.

- *Outpatient treatment:* Includes therapy, medication management, and supportive services needed to help consumer's manage their substance abuse problems. Outpatient treatment is limited to people who do not need more intensive levels of care (such as residential or detoxification services). Some outpatient services include evaluation, community support services, methadone administration, psychosocial rehabilitation, supported employment, and in-home services (for children and adolescents).
- *Medication assisted treatment:* Includes medication to help people remain in recovery, such as methadone, buprenorphine, and naltrexone (for opioids); disulfiram, naltrexone, and acamprosate (for alcohol dependence); and other pharmacologic agents as they are developed and approved by the FDA.
- *Intensive outpatient and partial hospitalization:* Includes day treatment, intensive outpatient programs, and comprehensive outpatient programs.
- *Clinically managed low-intensity residential treatment:* Includes substance abuse services provided in a residential setting 24-hours day, 7-days a week. Residential centers provide treatment for children, adolescents, and adults through a multi-disciplinary team of substance abuse professionals. These residential services are targeted to individuals with less severe addiction problems and may include halfway houses and supervised or group living arrangements.
- *Clinically managed medium- and high-intensity residential treatment:* Similar to clinically managed low-intensity residential treatment, these services also include residential based services. However these services are geared to individuals with more severe addiction problems. These services include non-medical community residential treatment, medically monitored community residential treatment, and residential services for pregnant and parenting women and their children.<sup>k</sup>

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<sup>k</sup> The Perinatal and Maternal Substance Abuse Initiative is administered by the Division of MHDDSAS and includes specialized residential programs for substance abusing pregnant and parenting women and their children. These programs provide comprehensive gender-specific substance abuse services that include, but are not limited to, the following: screening, assessment, case management, intensive outpatient substance abuse and mental health services, parenting skills, residential care, referrals for primary and preventative healthcare, and referrals for appropriate

- *Inpatient, medically monitored high-intensity inpatient treatment and detox:* Includes care provided in a general hospital, psychiatric hospital, psychiatric residential treatment facility (adolescents), or intensive residential services for high-risk individuals provided in a hospital setting.
- *Crisis services (including detoxification):* Crisis stabilization and support includes all supports, services, and treatment necessary to stabilize and manage the consumer's substance abuse problems. Crisis services are available on a 24-hour, 7-day a week basis, and includes immediate evaluation, triage, and access to acute and detoxification services, treatment, and other needed support services. Crisis services include mobile and facility based crisis services, detoxification services offered in social settings, or non-hospital based.
- *Recovery supports:* Includes services that help people remain sober, such as telephone follow-up, sober housing, care management, employment coaching, and family services.
- *Data:* DMHDDSAS collects a wide variety of data from different data sources. These data include numbers of people who seek care and the timeliness of services provided; numbers of people served and services provided through DMHDDSAS payments or Medicaid funds; and visits to the community hospital emergency department due to mental illness, developmental disabilities, or substance abuse disorders. More information about the data collected, as well as gaps in the current data system, is described in Chapter 5.

**SUBSTANCE ABUSE PREVENTION AND TREATMENT PROGRAMS OPERATED IN CONJUNCTION WITH OR BY OTHER STATE AGENCIES**

DMHDDSAS administers and funds several programs in collaboration with other state agencies. Some of those programs include:

- *Treatment Accountability for Safer Communities (TASC):* TASC is administered by DMHDDSAS and operates in accordance with the memorandum of agreement between DHHS, the Administrative Office of the Courts, and the Department of Correction. TASC provides care management services for individuals involved in the criminal justice system

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interventions for the children. The children in these families benefit from the services provided by the local health departments (pediatric care), early intervention programs, and child services coordination services.

**DMHDDSAS  
administers and  
funds several  
programs in  
collaboration  
with other  
state agencies**

who need substance abuse and/or mental health services.<sup>27</sup> TASC care managers work in conjunction with partner agency staff to link clients to appropriate levels of treatment and support, using the authority of the criminal justice system to engage and retain people in treatment with the goal of reducing drug use and corresponding criminal behavior. TASC services are available in all 100 counties throughout the state.

- *Managing Access for Juvenile Offender Resources and Services (MAJORS)*: MAJORS is administered by DMHDDSAS in collaboration with the Department of Juvenile Justice and Delinquency Prevention (DJJDP). The program provides specialized community-based substance abuse treatment services to children and adolescents under 18 years old who have substance abuse problems. To qualify, the youth must be involved with DJJDP and have a substance abuse diagnosis. Youth are provided substance abuse screening and assessment, offered therapy, life skills training, and ongoing monitoring. MAJORS staff also provide services to youth transitioning from youth development centers and residential programs. MAJORS is currently offered in 31 judicial districts spanning 61 counties.
- *Driving While Impaired (DWI) Services*: Individuals who have been convicted of driving while impaired, or who were under age 21 after consuming alcohol or drugs, have their drivers licenses revoked. In order to have their licenses restored by the Division of Motor Vehicles (DMV), these individuals must have a substance abuse assessment and complete required education or treatment services. DMHDDSAS authorizes and monitors agencies that provide DWI-related services and verifies the completion of services prior to DMV considering restoration of an individual's driver's license. Individuals who do not have significant risk factors or clinical symptoms of a substance use disorder must complete an educational intervention called Alcohol and Drug Education Traffic School (ADETS). Individuals with a substance use disorder must complete substance abuse treatment which may include short-term outpatient, longer-term outpatient, day treatment/intensive outpatient, or residential/inpatient treatment. In SFY 2007, of the 28,097 assessments reported, 84% were referred to some form of substance abuse treatment.<sup>28</sup> The majority of these services are provided through private agencies and paid for by the individual. A little over 2% of individuals received publicly-funded substance abuse services.

- Work First/Child Protective Services (CPS) Substance Abuse Initiative:* This program is funded by DMHDDSAS, administered by the LMEs, and operates in accordance with memoranda of agreement at the state and local levels. The goals of the Work First/CPS Substance Abuse Initiative are to provide early identification of Work First recipients that have substance abuse problems severe enough to impact their ability to become self-sufficient and to assist parents involved with CPS who have substance abuse problems engage in appropriate treatment. Each LME receives funding to support this initiative. Qualified Substance Abuse Professionals are out-stationed, when possible, in the local departments of social services to provide screening, assessment, care coordination, and referral to treatment. The Qualified Substance Abuse Professionals and the Work First case manager or CPS worker jointly develop a plan for the family to ensure success.
- CASAWORKS for Families Residential Initiative:* The NC CASAWORKS for Families Residential Initiative is a collaborative project between DMHDDSAS and the Division of Social Services. This Initiative supports 9 comprehensive residential substance abuse programs for Work First women and their children. The CASAWORKS for Families model was originally developed by the Center for the Study of Addiction and Substance Abuse (CASA) at Columbia University in response to the impact of welfare reform on substance abusing families. To support Work First families to become economically self-sufficient, this program integrates gender specific substance abuse treatment and job readiness supports, vocational training, and employment.<sup>29</sup>
- Safe and Drug-Free Schools:* The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services 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 consists of 20% of the funds for communities, while 80% goes to the Department of Public Instruction to use directly in the school system (see below). The governor's portion provides community based services to special populations and youth that are high-risk who are not normally served by the state or local education agencies. These funds are coordinated through the Local Management Entities (LMEs) who contract with community providers in over 30 counties.

In addition to programs funded and administered through the DMHDDSAS system, other state agencies provide prevention, treatment, and recovery supports to people who have alcohol or substance abuse problems. Most of these agencies work in collaboration with DMHDDSAS in delivering the services; however some of the programs operate independently of the Division. Some agency programs are described below.<sup>1</sup>

#### *Administrative Office of the Courts*

- *Drug Treatment Courts (DTC)*: The North Carolina General Assembly created Drug Treatment Courts (DTC) in 1995. These courts were set up to reduce alcoholism and drug dependence among adult and juvenile offenders and among adults involved in juvenile petitions for abuse or neglect.<sup>30</sup> The Adult Treatment Courts currently operate in 15 judicial districts covering 19 counties,<sup>m</sup> and Youth Treatment Courts operate in 5 counties.<sup>n</sup> Family Drug Treatment Courts operate in 6 counties, and were established to provide services to parents who have lost custody of their children due to abuse or neglect, or who are in danger of losing custody.<sup>o</sup> Individuals involved in drug treatment courts may receive services through the DMHDDSAS system and are subject to frequent alcohol and drug testing.

#### *Division of Community Corrections (DCC), Department of Correction*

- *Criminal Justice Partnership Program (CJPP)*: CJPP provides grants to support community-based programs aimed at reducing recidivism, probation revocations, alcoholism and

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<sup>1</sup> The Task Force learned about some of the substance abuse prevention and treatment programs available through other public agencies. However, there are additional substance abuse services being offered through other public agencies which have not yet been discussed in Task Force meetings. These will be included in the final Task Force report in 2009.

<sup>m</sup> The following judicial districts operate adult DTCs: Avery/Watauga (District 24), Buncombe (District 28), Carteret (District 3B), Catawba/Burke (District 25), Craven (District 3B), Cumberland (District 12), Durham (District 14), Forsyth (District 21), Guilford (District 18), Mecklenburg (District 26), New Hanover (District 5), Orange (District 15B), Person/Caswell (District 9A), Pitt (District 3A), Randolph (District 19B), and Wake (District 10).

(<http://www.nccourts.org/Citizens/CPrograms/DTC/Default.asp>)

<sup>n</sup> Youth Drug Treatment Courts deal with children with substance abuse problems post adjudication in the following counties: Durham (District 14), Forsyth (District 21), Mecklenburg (District 26), Rowan (District 19C), and Wake (District 10).

(<http://www.nccourts.org/Citizens/CPrograms/DTC/Youth/Default.asp>)

<sup>o</sup> Family Drug Treatment courts are available in 6 counties including Mecklenburg, Buncombe, Cumberland, Halifax, Orange, and Wayne.

(<http://www.nccourts.org/Citizens/CPrograms/DTC/Family/Default.asp>)

other drug dependencies, and the costs of incarceration to the state and counties. DCC administers the program. The eligible offender population includes adult sentenced offenders who receive an intermediate sanction and post-release or parole offenders.

There are 83 funded programs operating in 93 counties. The types of programs operating include 3 basic types: Day Reporting Centers, Satellite Substance Abuse Programs, and Resource Centers. Services offered through CJP programs include combinations of substance abuse treatment, drug testing, cognitive behavioral interventions, employment assistance, and academic/vocational education assistance.<sup>31</sup>

- *Substance Abuse Screening and Intervention Program*: The Substance Abuse Screening and Intervention Program is a statewide program that provides drug testing services, training for DCC officers and outside agencies on drug testing procedures, education of DCC officers on drugs and other substance abuse issues, and trend monitoring. The program's primary goal is to assist DCC in accomplishing its stated mission by identifying offenders with substance abuse problems and guiding them through the recovery process.<sup>32</sup>

*Division of Alcoholism and Chemical Dependency Programs (DACDP), Department of Correction*

DACDP's mission is to plan, administer, and coordinate chemical dependency screening, assessment, intervention, treatment, aftercare, and continuing care services for the Department of Correction.

DACDP programs encompass 4 major service levels:

- *DART-Cherry* is a community-based residential treatment program for male probationers/parolees. Eligibility for admission is determined by court order or the Post-Release Supervision and Parole Commission.
- *DACDP Intervention-24* program is designed to provide 24 hours of content over a period of 3-4 days for male and female prison inmates determined to be substance abusers, but not dependent.
- *Intermediate DACDP programs* range from 35-180 days and are available in 13 residential settings located in prisons across the state for male and female inmates.

- *Long-term treatment programs.* There are 2 types of long-term treatment programs: federally-funded residential substance abuse treatment programs and contractual private treatment facilities. Each is designed to treat seriously addicted male and female prison inmates. Participants remain in long-term treatment programs for 180-365 days.<sup>33</sup>

*NC Division of Public Health.* Three branches of the Division of Public Health work on substance abuse prevention activities.

- *Tobacco Control Branch:* The Tobacco Prevention and Control Branch works to improve the health of North Carolina residents by reducing tobacco use and exposure to secondhand smoke. The Branch helps prevent tobacco use initiation and promote quitting among young people; assists adult tobacco users in quitting when they seek help; works to eliminate exposure to secondhand smoke by building support to make all NC schools, workplaces, and public places smoke free; and works to eliminate tobacco-related health disparities. The Branch contracts to offer a statewide tobacco quitline, 1-800-Quit-Now, and works collaboratively with worksites, schools, community groups, and healthcare systems to carry out effective policy, media, and program services.
- *Injury and Violence Prevention Branch:* The Branch works with the State Poison Control Center (at Carolinas Medical Center), the State Bureau of Investigation and other law enforcement agencies, and with the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services in its oversight of the new Controlled Substance Reporting System. The Branch is also actively involved in surveillance of injuries (including poisonings) using a wide variety of databases.
- *Forensic Tests for Alcohol Branch:* The Forensic Tests for Alcohol Branch seeks to reduce the incidence of impaired driving by providing comprehensive training programs to law enforcement personnel in the detection and apprehension of impaired drivers.

*Department of Public Instruction*

- *Safe and Drug-Free Schools:*<sup>34</sup> As noted earlier, the Department of Public Instruction (DPI) manages 80% of the Safe and Drug-Free Schools and Communities (SDFSC) funding from the US Department of Education. The purpose of

the DPI program is 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 it is 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 which are not as directly tied to preventing, identifying, referring, or treating students at risk of or using alcohol, tobacco, or other drugs.

- *Healthful Living Curriculum:*<sup>35</sup> Schools are also responsible for providing substance abuse prevention education to students. This curriculum is part of the Healthful Living Curriculum, the state's health education curriculum that is required for children in kindergarten through high school. The curriculum is designed to be age-appropriate and includes a wide range of health topics. At various times in the 12 years, students are exposed to information that describes the health risks of using alcohol, tobacco, and other drugs, and helps give the students the skills to decline offers to engage in these unhealthy behaviors.

#### *University of North Carolina System*

- *Substance Abuse Prevention and Intervention Resources:* The schools of the University of North Carolina system have developed substance abuse prevention and intervention resources on campus and report them annually or biennially through the University of North Carolina Board of Governors Policy on Illegal Drugs (1988) and the federal Drug-Free Schools and Campuses Regulations (EDGAR Part 86, 1989) biennial review. These regulations require review of current prevention efforts and areas that need improvement, availability of campus counseling services for alcohol and other drugs, and reports of campus policy enforcement. UNC campuses provide substance abuse prevention and education programs, screening, counseling services, and referrals to treatment agencies for alcohol and drug addiction. In addition, many work together with their local community through

coalitions and partnerships and collaborate with each other through the Network Addressing Collegiate Alcohol and Other Drug Issues.

*North Carolina Community College System*

- *Substance Abuse Information and Referral Services:* North Carolina community colleges must provide information to students and employees to prevent drug and alcohol abuse, in compliance with the federal Drug-Free Schools and Communities Act of 1986 and 1988, and the Drug-Free Workplace Act of 1988. Information for students includes prevention materials; conduct standards and sanctions relating to drugs and alcohol; local, state, and federal legal sanctions; descriptions of available counseling, treatment, and rehabilitation programs; and descriptions of health risks associated with the use of drugs and alcohol. College campuses partner with local agencies and facilities when referring students with drug and alcohol issues. Many campuses provide substance abuse and prevention programming and activities.

## CHAPTER 4 SUBSTANCE ABUSE SYSTEM OF CARE

### SUBSTANCE ABUSE COMPREHENSIVE SYSTEM OF CARE

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.<sup>P</sup> 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.

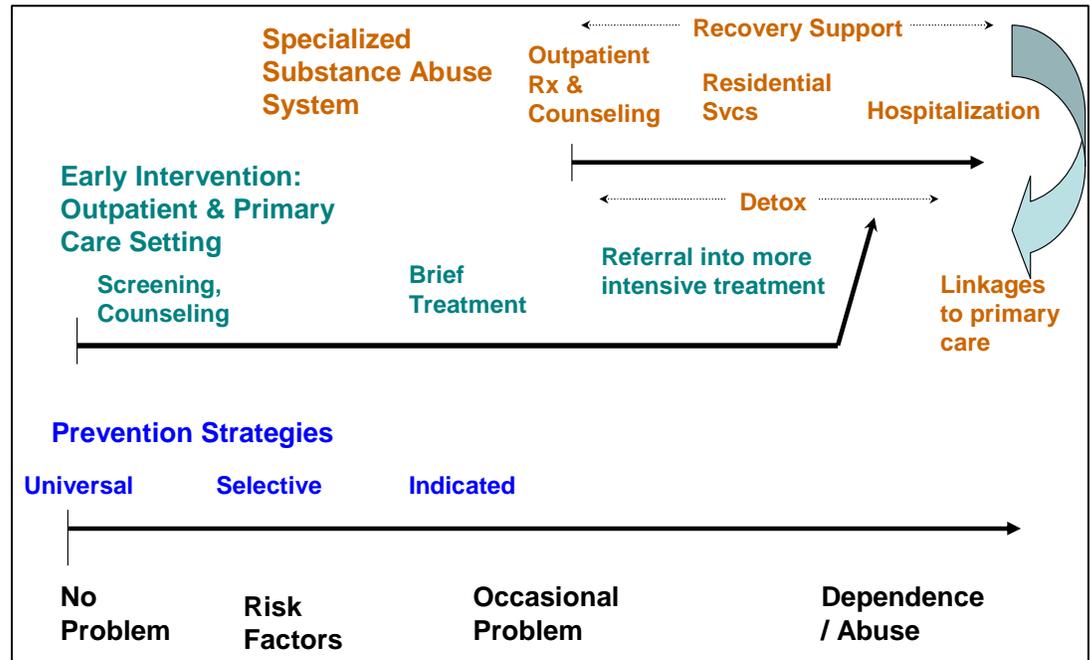
At the far end of the spectrum, individuals with more severe problems need different levels of treatment offered through the specialized substance abuse system. Even after they have been treated and have become sober, they will likely need recovery supports to prevent relapse. Chart 4.1 shows the services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

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<sup>P</sup> The National Registry of Evidence Based Programs and Practices (NREPP), a part of SAMHSA, 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](http://www.nrepp.samhsa.gov).

**Reducing substance abuse requires a comprehensive system of care that starts with prevention, offers early intervention, provides various levels of treatment services, and offers continual recovery supports**

**Chart 4.1 Comprehensive Substance Abuse Services System**



**COMPREHENSIVE COMMUNITY PREVENTION EFFORTS**

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

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.<sup>5</sup> In 2005, alcohol use contributed to 26.8% of crash-related fatalities.<sup>36</sup> 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.<sup>37</sup> 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 4 to 5 dollars for every 1 dollar they spend on substance abuse prevention.<sup>10</sup> 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.<sup>38,39,40</sup> Research also supports the development of comprehensive strategies involving multiple systems that target youth during critical developmental stages.<sup>41,42</sup>

Addiction is a disease that often begins in childhood and adolescence.<sup>1</sup> The adolescent developmental period is the critical time to intervene to prevent substance abuse.<sup>1</sup> 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.<sup>43</sup> Surveys of North Carolina youth show that almost 40% of high school students had at least one drink in the last 30 days.<sup>12</sup> A national survey showed that 19% of college students met criteria for alcohol abuse or dependence.<sup>44</sup> 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.<sup>45</sup>

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.<sup>46</sup>

A mixture of different evidence-based prevention models are appropriate, depending on whether the 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).<sup>47</sup>

- *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

**The adolescent developmental period is the critical time to intervene to prevent substance abuse**

**Multilevel approaches rely on interventions aimed at the personal, interpersonal, institutional, community, and/or public policy levels**

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.<sup>48</sup>

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.<sup>49</sup> This multilevel approach relies on interventions aimed at the personal, interpersonal, institutional, community, and/or public policy levels.<sup>q,50</sup> 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.<sup>49</sup> 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 (ie, increasing knowledge and skills to resist peer pressure to use drugs), interpersonal interventions (ie, strengthening family connections and positive peer networks), institutional interventions (ie, evidence-based programs in schools, universities, or worksites), community factors (ie, 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. Currently, DMHDDSAS works with Local Management Entities (LMEs) to conduct needs assessments and to implement evidence-based prevention programs, practices, and policies.<sup>r,47</sup> Funds are allocated to LMEs through the Substance Abuse Prevention Treatment (SAPT) block grant. On a semiannual basis, communities report the

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<sup>q</sup> This intervention approach is based upon the socioecological model of health behavior theory.

<sup>r</sup> SAMHSA'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>.

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 10,000 were served through substance abuse block grants and the Safe and Drug-Free Schools and Communities Act (SDFSC) grants (SFY 2006-2007).<sup>43</sup>

A comprehensive statewide substance abuse prevention plan with multilevel interventions will enable North Carolina to more effectively leverage its substance abuse prevention and treatment resources and enhance data collection systems to reflect progress and needs at the family, school, and community level. These enhancements will in turn enable North Carolina to track and demonstrate the efficacy of its prevention efforts.

Therefore, the Task Force recommends:

**Recommendation 4.1 (PRIORITY RECOMMENDATION)**

- (a) The North Carolina General Assembly should appropriate \$1,945,000 in SFY 2009 and \$3,722,000 in SFY 2010 in recurring funds to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) to develop a comprehensive substance abuse prevention plan for use at the state and local levels, consistent with the Center for Substance Abuse Prevention (CSAP) Strategic Prevention Framework.<sup>5</sup> 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**

**The North Carolina General Assembly should appropriate \$1,945,000 in SFY 2009 and \$3,722,000 in SFY 2010 to develop a comprehensive substance abuse prevention plan**

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<sup>5</sup> The Strategic Prevention Framework (SPF) is SAMHSA's approach to substance abuse prevention from a systemic perspective. The 5 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>.

**\$1,770,000 of the recurring funds in SFY 2009 and \$3,547,000 in SFY 2010 should be used to fund 6 pilot projects to implement county or multi-county comprehensive prevention plans**

**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.**

- (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) Of the recurring funds appropriated by the North Carolina General Assembly, \$1,770,000 in SFY 2009 and \$3,547,000 in SFY 2010 should be used to fund 6 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 1 rural pilot and 1 urban pilot in the 3 MHDDSAS 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.<sup>†</sup> The 6 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.****

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<sup>†</sup> The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services is the lead agency charged with preventing the use of tobacco, alcohol, and other illegal substances. DMHDDSAS staffs a Cooperative Agreement Advisory Board (CAAB) that functions to monitor federal prevention initiatives and funding. Funding from DMHDDSAS normally flows at the local level through Local Management Entities (LMEs). Thus, LMEs should serve as the grantees for the pilot programs, although the LMEs can receive the funds as pass-through for projects implemented in partnership with other community organizations.

- (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 (ie, 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.**
- (c) **The North Carolina General Assembly should appropriate \$250,000 of the Mental Health Trust Fund to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services 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. 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.**
- (d) **The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services 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 6 months of when the evaluation is completed.**

**DMHDDSAS should use the findings from the independent evaluation of prevention services to develop a plan to implement the successful strategies statewide**

## SCHOOL-BASED PREVENTION, SCREENING, AND TREATMENT EFFORTS

### **Schools are an integral part of a multifaceted prevention strategy**

Schools are an integral part of a multifaceted prevention strategy, as youth spend a considerable amount of time at school. Currently, the North Carolina Department of Instruction (DPI) provides the Healthful Living Curriculum, which has a section dedicated to substance abuse prevention at each grade level.<sup>51</sup> In addition, DPI allocates Safe and Drug-Free School<sup>u</sup> funds to local education authorities.<sup>52</sup> In 2004, Pankratz and Hallfors found that while schools in North Carolina do use evidence-based prevention curricula, they are not the most commonly used.<sup>53</sup>

DPI and DMHDDSAS should work to establish collaborative 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.<sup>v</sup> These programs were initially funded in 1988 through state funds but lost state funding in years of tight budget constraints. Other potential sources of funding, including the federal Safe and Drug-Free School monies, were used to support School Resource Officers rather than student assistance programs. As a result, the availability of these programs dwindled. 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.<sup>54</sup> Every school district in North Carolina should have a substance abuse treatment referral plan in order to ensure that children with substance abuse problems are identified early and referred into treatment with the appropriate family and school supports.

Community colleges and universities should also have a comprehensive substance abuse prevention and treatment plan. Research suggests that drinking among college-age (18-24 years) students is prevalent, with an estimated 51% of men and 40% of

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<sup>u</sup> Safe and Drug-Free School and Communities Act, Title IV.

<sup>v</sup> *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>.

women being classified as binge drinkers (defined as 5 or more drinks on the same occasion for men, and 4 or more drinks on the same occasion for women).<sup>37</sup> Further, it is estimated that drinking among college students contributes to 1,700 deaths, 559,000 injuries, and 97,000 cases of sexual assault or date rape nationally each year.<sup>55</sup> Thirty-one percent of college students abuse alcohol, and 6% meet the clinical guidelines for alcohol dependence with few seeking treatment during college.<sup>56</sup> 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. The strategies might differ, depending on whether the students with substance abuse problems are enrolled in community colleges or universities. Community colleges typically have far fewer resources to screen, provide brief intervention, or treat students with substance abuse problems than do most universities. Further, students who attend community colleges are all commuters, whereas many students who attend universities live on campus. At a minimum, all postsecondary institutions should be able to refer students with substance abuse problems to other community resources, such as the Local Management Entities, that will help link students to appropriate treatment services. The educational institutions should help link students with substance abuse problems to recovery supports once they return to campus. These recovery supports including, but not limited to, 12-step programs, may be available on campus or may be available in the community.

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.<sup>w</sup> 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 not driving under the influence and drunkenness. Institutions are *not* required to report on tobacco use by students or any student activities that occur on private property off campus (even if leading to a disciplinary action).

To reduce duplication of efforts, effectively leverage state and federal resources, and reach more of North Carolina's adolescents, youth, and young adults with evidence-based prevention interventions, the Task Force recommends:

**Postsecondary institutions should be able to refer students with substance abuse problems to community resources that will help link students to appropriate treatment services**

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<sup>w</sup> 20 USC§ 1092(f).

**North Carolina  
educational systems  
should offer  
comprehensive  
substance abuse  
prevention and  
treatment services  
to students enrolled  
in their schools**

**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 and availability of substance abuse screening and treatment services, in order to ensure that these educational institutions offer comprehensive substance abuse prevention and treatment services to students enrolled in their schools. These institutions should submit a description of their prevention plan, 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, the Appropriations Subcommittee on Education, and Education Committees no later than the convening of the 2009 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.<sup>x</sup>**
- (2) Information from the State Board of Education on how local education agencies have implemented the substance abuse component of the Healthful Living Curriculum.**
- (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 the 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**

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<sup>x</sup> 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.

**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 prevention activities led by the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services to ensure the development of consistent messages and optimization of prevention efforts. Prevention efforts should be based on research-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.**

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.<sup>57</sup> Tobacco use (as well as alcohol and marijuana use) is a precursor to other illicit drug use.<sup>57</sup> 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.<sup>58</sup> Tobacco is a highly addictive substance and targets the same pathway in the brain as alcohol and many other drugs.<sup>59</sup>

North Carolina Youth Risk Behavior Survey data from 2007 show that 22.5% of high school students have smoked cigarettes on 1 or more of the past 30 days, while 11.7% of middle school students have.<sup>45</sup> In general, as age increases, so does the probability that cigarettes have been smoked on 1 or more of the last 30 days.

Congress enacted the Synar Amendment in 1992 to protect youth from tobacco. The Synar Amendment requires states to have laws prohibiting the sale of and distribution of tobacco to individuals under the age of 18 and to have effective enforcement mechanisms.<sup>y</sup> Under

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<sup>y</sup> 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

**Children and adolescents who use tobacco are more likely than those who do not use tobacco to consume alcohol or use other illicit substances**

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.<sup>z,60</sup>

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.<sup>aa,61</sup> 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.<sup>62</sup>

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

#### **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.**

**A 10% price increase in the cigarette tax results in a 6-7% decrease in the number of kids who smoke**

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.<sup>63</sup> Research shows that a 10% increase in the price of a pack of cigarettes results in a 3-5% drop in adult consumption.<sup>64</sup> Further, research

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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.

<sup>z</sup> Connecticut, Michigan, the District of Columbia, and Kansas had higher failure rates than North Carolina in 2005.

<sup>aa</sup> Beginning in 2002, the North Carolina Health and Wellness Trust Fund began providing \$500,000 in grant funds/year to NC DMHDDSAS to purchase services from ALE. Continued funding is not guaranteed as the funds are awarded as part of a competitive grant process.

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.<sup>65</sup> Increasing the cigarette tax by 75 cents per pack would provide tremendous gain for the state in terms of reducing death and disability due to tobacco use. The Campaign for Tobacco Free Kids estimated the amount of taxes that would be generated from a 75-cent increase in North Carolina's tobacco tax (which would raise the state tax to 1 cent below the national average). The organization found that a 75-cent increase in North Carolina's cigarette tax would result in a 15.7% decrease in the youth smoking rate and that 94,900 children alive today would not become smokers. Furthermore, a 75-cent increase would raise \$347.4 million in new state tax revenues each year.<sup>66</sup> The revenues generated from the increased taxes should be used to support substance abuse prevention efforts. The Task Force recommends:

**Recommendation 4.4 (PRIORITY RECOMMENDATION)**

**In order to further reduce youth smoking, the North Carolina General Assembly should increase the tobacco tax per pack to the national average. Increasing the tobacco tax has been shown to reduce smoking, particularly among children and youth. The increased fees should be used exclusively to support prevention and treatment efforts for alcohol, tobacco, and other drugs.**

*Adult tobacco use:* Parents play a key role in adolescent health behavior development. Children who have parents who smoke are more likely to smoke.<sup>67, 68</sup> One step to reduce adolescent smoking is to encourage cessation among parents.<sup>68</sup> 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<sup>bb</sup> (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. From November 2005

**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**

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<sup>bb</sup> 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.

to November 2007,<sup>cc</sup> over 5,000 callers had reached the Quitline NC<sup>dd,ee</sup> for cessation assistance. 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 recommends that state quitlines reach 6% of smokers.<sup>ff</sup> Funding to 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**

As of January 2008, 22 states and the District of Columbia have passed smoke-free laws that prohibit smoking in restaurants and bars.<sup>gg</sup> Four other states have smoke-free laws that cover restaurants but exempt stand-alone bars.<sup>hh,69</sup>

The CDC recommends smoking bans and restrictions to decrease exposure to secondhand smoke.<sup>ii</sup> A review of the research showed that "smoking bans and restrictions also helped to reduce the cigarette consumption and to increase the number of people who quit smoking."<sup>70</sup>

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<sup>cc</sup> Quitline NC was established in November 2005.

<sup>dd</sup> Quitline NC 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 Funds, Blue Cross and Blue Shield of North Carolina, and the Centers for Disease Control and Prevention (through the TPCB).

<sup>ee</sup> Free & Clear, Inc. is the current Quitline NC vendor. The vendor for SFY 2008-2009 will be determined in April 2008.

<sup>ff</sup> Information provided by the Tobacco Prevention and Control Branch, NC Department of Health and Human Services, on February 27, 2008.

<sup>gg</sup> 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.

<sup>hh</sup> States with smoke-free laws covering restaurants, but exempting stand-alone bars are Florida, Idaho, Louisiana, and Nevada.

<sup>ii</sup> US Task Force on Community Preventive Services.

In 2007, the North Carolina General Assembly passed smoke-free legislation<sup>jj</sup> prohibiting smoking in buildings owned, leased, or occupied by state government.<sup>kk</sup> In order to create more environments throughout the state to 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<sup>ll</sup> alcohol use include death from injury, risky sexual behavior, and increased risk of sexual and physical assault. In addition, the report highlights that underage 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.<sup>71</sup>

The US Surgeon General’s Report states that alcohol is the most commonly used drug among youth<sup>mmm</sup> 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.<sup>71</sup> 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 nonbinge drinkers and nondrinkers.<sup>nn,72</sup> 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).<sup>73</sup>

**Alcohol is the most commonly used drug among youth and is associated with academic failure, illicit drug use, and tobacco use**

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<sup>jj</sup> S.L.2007-193

<sup>kk</sup> HB 24 / SB 43

<sup>ll</sup> Underage in the report refers to persons under the minimum drinking age of 21.

<sup>mmm</sup> Youth refers to individuals under the age of 21.

<sup>nn</sup> In this study, binge drinkers were defined as men consuming 5 or more drinks on one occasion or women consuming 4 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.

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

<b>Problem</b>	<b>Total Costs (in millions)</b>
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
<b>Total</b>	<b>\$1,225.3</b>

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**

Early onset of drinking increases the risk of alcohol addiction.<sup>74</sup> Furthermore, most people who die from alcohol begin drinking in their youth.<sup>75</sup> 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 showed that delaying initiation was associated with reduced risk of later dependence.<sup>76</sup> According to a 2004 National Survey on Drug Use and Health report, individuals who first drank alcohol prior to age 15 were more than 5 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.<sup>77</sup> 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.<sup>78</sup>

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,<sup>oo</sup> while 15.9% of middle school students reported their first drink before age 11.<sup>pp</sup> Having at least one alcohol drink on one or more of the past 30 days was reported by 37.7% of

<sup>oo</sup> YRBS QN40: Percentage of students who had their first drink of alcohol other than a few sips before age 13 years.

<sup>pp</sup> YRBS QN25: Percentage of students who had their first drink of alcohol other than a few sips before age 11 years.

high school students.<sup>99,45</sup> Results from a recent nationwide survey showed that 19% of college students ages 18-24 met DSM-IV criteria for alcohol use or dependence.<sup>rr,44</sup>

*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.<sup>79</sup> 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.<sup>80</sup>

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.<sup>81</sup> Further, studies have shown that increasing beer or alcohol taxes leads to other positive health and social consequences.<sup>82</sup> For example, a study by Grossman and Markowitz (2001)<sup>82</sup> 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.

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%.<sup>75</sup>

Beer is the alcoholic drink of choice among youth.<sup>83</sup> 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 5 cents per 12-ounce bottle.<sup>84</sup> The real dollar value of the beer tax has eroded by more than 82% since it was last raised. Had the

**More than one-third of high school students reported that they had at least one alcoholic drink on one or more occasions in the past 30 days**

**Almost one-fifth of college students ages 18-24 met DSM-IV criteria for alcohol use or dependence**

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<sup>99</sup> YRBS QN41: Percentage of students who had at least one drink of alcohol on one or more of the past 30 days.

<sup>rr</sup> National Epidemiologic Survey on Alcohol and Related Conditions, National Institute on Alcohol Abuse and Alcoholism.

**Tax increases, particularly on beer, can help reduce youth drinking and are also likely to reduce use among heavy drinkers**

**The last time the beer tax was raised in North Carolina was in 1969**

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 18<sup>th</sup> highest state tax on wine.<sup>85</sup> 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. 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.<sup>86</sup>

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.<sup>87, 88, 89</sup>

*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 preexisting risks facing young drivers such as inexperience, impulsiveness, and driving often at night and/or with multiple passengers.<sup>90</sup> As shown in Table 4.2, approximately 1 in 4 fatal crashes in North Carolina were alcohol-related from 2001 to 2005, and approximately 5% of all crashes were alcohol-related during this period.

**Table 4.2  
Crashes in North Carolina and the Percent of those Crashes that were Alcohol-Related Crashes, 2001-2005<sup>ss</sup>**

	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)	14,226 (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.

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. Results from the 2007 Youth Risk Behavior Survey show that 24.7% of high school students in North Carolina have ridden in a vehicle with someone who had been

<sup>ss</sup> Property damage only crashes were not included in the table; therefore nonfatal crashes and fatal crashes do not equal total number of crashes.

drinking alcohol,<sup>tt</sup> while 26.9% of middle school students reported ever riding in a car being driven by someone who had been drinking alcohol.<sup>uu</sup> Moreover, 9.6% of high school students reported driving while under the influence.<sup>vv,12</sup>

The 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.”<sup>ww</sup> In the review of the literature, the US Task Force on Community Preventive Services found a 13% median decrease in total alcohol-related crashes associated with such campaigns.<sup>91</sup>

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 beer. Beer is the alcoholic beverage of choice among youth, and youth are sensitive to price increases.**
- (b) The excise taxes on beer 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 exclusively to support prevention and treatment efforts for alcohol, tobacco, and other drugs.**
- (c) The General Assembly should appropriate \$2.0 million of the funds raised through the new taxes to support a comprehensive alcohol awareness education and prevention campaign aimed at changing cultural norms to prevent initiation and reduce underage alcohol consumption and to reduce alcohol abuse or dependence among adults.**

**In order to reduce underage drinking, the North Carolina General Assembly should increase the excise tax on beer**

*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

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

<sup>uu</sup> YRBS QN9: Percentage of students who ever rode in a car driven by someone who had been drinking alcohol.

<sup>vv</sup> YRBS QN11: Percentage of students who drove a car or other vehicle one or more times during the past 30 days when they had been drinking alcohol.

<sup>ww</sup> US Task Force on Community Preventive Services.

**Fetal alcohol spectrum disorder can result in brain damage and low birth-weight babies with failure to thrive**

alcohol syndrome (FAS), alcohol-related neurodevelopmental disorder, and alcohol-related birth defects.<sup>92</sup> Approximately 1% of all births are children born with FASD.<sup>93</sup> Individuals affected by FASD may have physical, mental, learning, and /or behavioral disabilities that must be contended with for a lifetime.<sup>94</sup>

Brain damage is the most serious effect of FASD.<sup>94</sup> 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.<sup>92</sup> 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.<sup>94</sup> 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.<sup>92,95</sup> 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.<sup>95</sup>

The financial burden of FASD is great. In the US, it is estimated that FAS cost \$4 billion in 1998.<sup>96</sup> Another source has the estimate approaching \$5 billion.<sup>95</sup> Estimates predict that each child with FAS incurs a lifetime cost of \$2 million.<sup>xx,96</sup> North Carolina spent an estimated \$22 million on FAS among teen mothers alone in 2005.<sup>73</sup> 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 1 case of FAS alone would result in a savings of \$23,420 in 10 years.<sup>97</sup>

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

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<sup>xx</sup> FAS is the only condition within FASD for which cost information exists.

reduction in alcohol consumption by pregnant women and improved outcomes for the child can result from selective and indicated prevention efforts.<sup>98</sup> For example, a recent study published in the *American Journal of Preventive Medicine* showed that a brief motivational intervention<sup>yy</sup> with preconceptual women can reduce the risk of an alcohol-exposed pregnancy in at-risk women.<sup>99</sup>

According to 2005 North Carolina Pregnancy Risk Monitoring System (NC PRAMS) data, 3.8% of pregnant women in North Carolina had 5 or more alcoholic drinks in 1 sitting at least twice during the last 3 months of their pregnancy, while 0.5% reported having done this 1 time during the last 3 months of their pregnancy.<sup>100</sup>

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.<sup>101</sup> Still, 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. Given the burden of fetal alcohol spectrum disorders to society and to individuals born with FASD, the risk of drinking during pregnancy within the state, and the preventability of FASD, the Task Force recommends:

**The occurrence of fetal alcohol-related disorders is a preventable public health problem**

#### **Recommendation 4.8**

- (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 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 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. The plan should:**

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<sup>yy</sup> The brief motivational intervention consisted of 4 counseling sessions and 1 contraception consultation and services visit.

- (1) **Focus on women and adolescents at most risk of giving birth to children with fetal alcohol spectrum disorders.**
- (2) **Include strategies to educate, train, and support caregivers of children born with fetal alcohol spectrum disorders.**
- (3) **Identify strategies to educate primary care providers about early identification of infants and young children born with fetal alcohol syndrome disorder, available treatment, and community resources for the affected children and their families.**

### **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.

**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.<sup>102</sup> Similarly, research shows that counseling is an important element of a larger intervention for alcohol and drug use.<sup>103</sup>

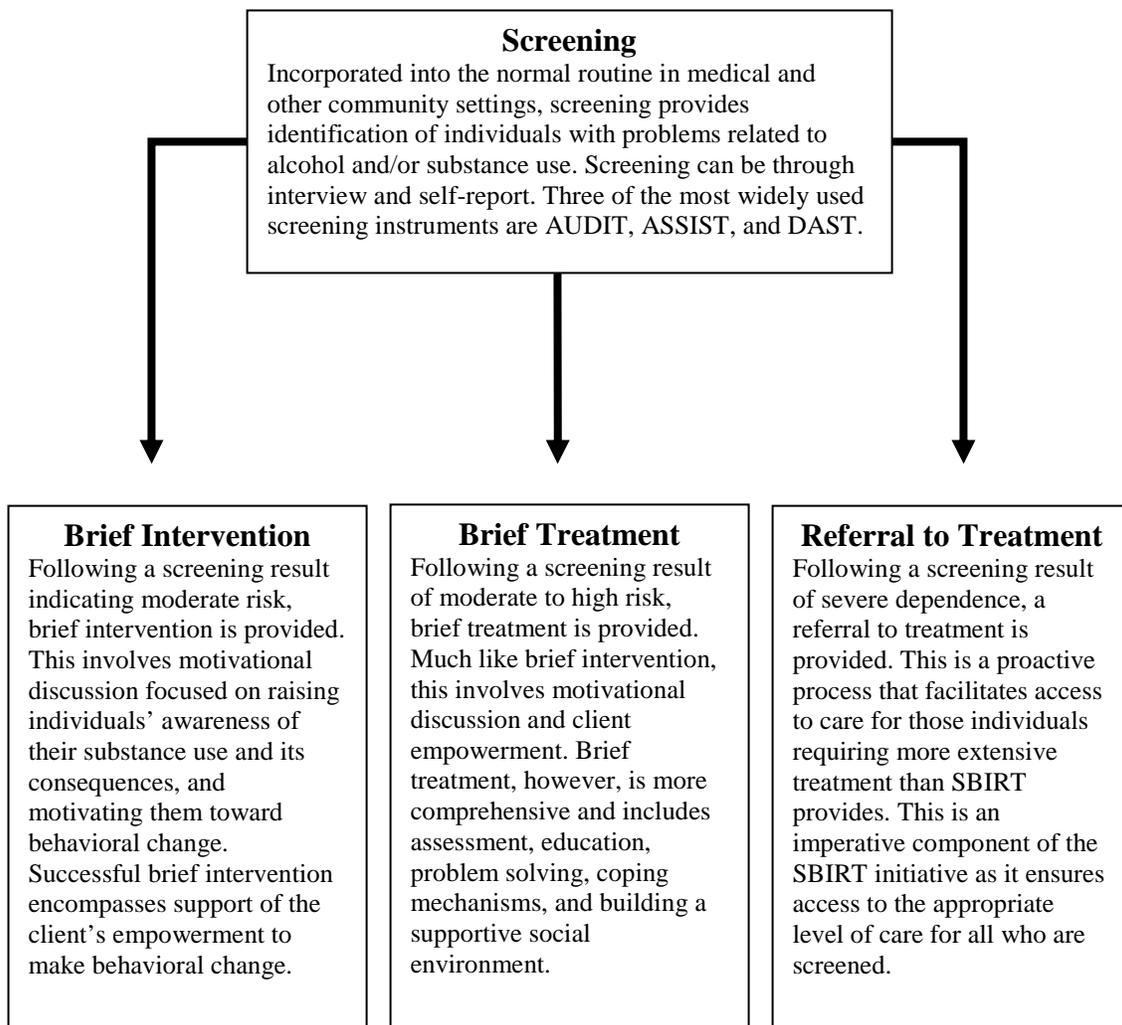
The Substance Abuse and Mental Health Services Agency (SAMHSA) has developed an evidence-based screening and brief intervention or treatment program for individuals who use and are at-risk for substance abuse problems. This program, Screening, Brief Intervention, and Referral to Treatment (SBIRT)<sup>zz</sup> has been successful in helping reduce consumption among people who use illegal substances or consume 5 or more alcoholic beverages in one setting.<sup>104</sup> The program has been tested in emergency departments, primary care providers’ offices, hospitals, federally qualified health centers, health departments, and school-based clinics.<sup>105,106,107</sup>

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<sup>zz</sup> For more information on SBIRT, visit the SAMHSA Web site at <http://sbirt.samhsa.gov/index.htm>.

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.<sup>105</sup> Providers are trained to offer brief intervention or brief treatment for people who are not yet dependent on alcohol, tobacco, or other drugs. 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 4.2.

**Chart 4.2**  
**SBIRT Core Components**



Source: SBIRT core components. SAMHSA Web site.  
[http://sbirt.samhsa.gov/core\\_comp/index.htm](http://sbirt.samhsa.gov/core_comp/index.htm). Accessed March 27, 2008.

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.<sup>11</sup> Many providers are unaware of this model and others are unfamiliar with the recommended screening and assessment tools. Others may need 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. Thus, to encourage more providers to use SBIRT strategies, the Task Force recommends:

#### **Recommendation 4.9**

**(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 training for primary care providers and other health professionals in academic and clinical settings, residency programs, or other continuing education programs on screening, brief treatment, and referral for people who have or are at risk of tobacco, alcohol, or substance abuse or dependency. The curriculum should include information about:**

- (1) Evidence-based screening tools.**
- (2) Instructions on how to deliver brief interventions, brief treatment, and referral and how to assess for co-occurring mental illness.**
- (3) Successful strategies to address commonly cited disincentives to care for patients in a primary care.**
- (4) Strategies to successfully engage people with more severe substance abuse disorders and refer them to specialty addiction providers for treatment services.**
- (5) The importance of developing and maintaining linkages between primary care providers and trained addiction specialists to ensure 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**

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%).<sup>aaa</sup> 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:

**Recommendation 4.10 (PRIORITY RECOMMENDATION)**

**(a) The North Carolina General Assembly should appropriate \$1.5 million in recurring funds to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS). The funds shall be used to develop a Memorandum of Agreement 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 organizations to educate and encourage healthcare professionals to use evidence-based screening tools and offer counseling, brief intervention, 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 SBIRT model.<sup>bbb</sup> The DMHDDSAS should work with ORHCC, the Governors Institute on Alcohol and Substance Abuse, AHEC, and other appropriate organizations to develop an implementation plan and for use of these state funds. The plan should include:**

**(1) Mental health and substance abuse system specialists to work with the 14 Community Care of North Carolina (CCNC) networks. These staff will work directly with the CCNC practices in development, implementation, and sustainability of evidenced-based practices and coordination of care between primary care and specialty services. This would include but not be limited to the Screening, Brief Intervention, and Referral to Treatment (SBIRT) model allowing for primary care providers to work toward a medical home model that has full**

**The North Carolina General Assembly should appropriate \$1.5 million to encourage healthcare professionals to offer counseling, brief intervention, and referral to treatment for at-risk individuals**

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<sup>aaa</sup> Source for both: NC IOM 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.

<sup>bbb</sup> The Task Force specifically recommends the use of the SAMHSA evidence-based program SBIRT. SBIRT refers to a specific program utilizing evidence-based screening tools, brief intervention, counseling, and referral to treatment.

**integration of physical, mental, developmental, 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. These staff should establish - in conjunction with LMEs, CCNC networks, the Governors Institute, and regional AHECs - 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.**

- (2) 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.**
- (3) Integrated systems for screening, brief intervention, and referral into treatment in outpatient settings with the full continuum of substance abuse services offered through DMHDDSAS.**

Many health plans cover 1 annual physical per year in order to focus on prevention and provide counseling to encourage wellness. The North Carolina State Health Plan, for example, pays for 1 wellness visit per enrollee per year, beginning at age 2.<sup>108</sup> The American Association of Pediatrics recommends an annual wellness visit for all children and adolescents after age 3 (and more frequently for children who are younger than 3).<sup>109</sup> In contrast, the North Carolina Medicaid program and North Carolina Health Choice only pays for an annual visit once every 3 years after the child reaches age 7.

Adolescents are less likely to seek healthcare services than other age groups.<sup>110</sup> This problem is compounded for low-income children on Medicaid because there may not be a source of payment for a wellness visit. Thus, primary care providers lose the opportunity to intervene and counsel the child/adolescent when they are first starting to experiment with alcohol, drugs, or tobacco. In North Carolina, 17.3%

of children try their first cigarette before age 13, 19.7% drink alcohol before age 13, and 8.3% smoke marijuana or use other drugs before age 13.<sup>111</sup> The Task Force thought it was important to encourage physicians to screen youth and adolescents to identify those who have begun to experiment with or use any of these substances. Once identified, providers should counsel these youth to encourage them to stop using these substances or refer them into more intensive treatment services. Medicaid and NC Health Choice should begin to cover annual wellness visits for children and adolescents in order to remove any financial barriers which prevent these youth from seeking care. Thus, the Task Force recommends:

#### **Recommendation 4.11**

**The North Carolina General Assembly should direct the Division of Medical Assistance and NC Health Choice program to provide coverage for annual wellness visits for children and adolescents.<sup>ccc</sup> The wellness visit should include but not be limited to:**

- (a) An annual psychosocial behavioral assessment.**
- (b) An annual screening for tobacco, alcohol, and drug use, beginning at age 11.**
- (c) Brief intervention and/or anticipatory guidance at the time of screening.**

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.<sup>112</sup> Patients who are treated in an integrated care setting are more likely to receive preventive care and experience improved health outcomes.<sup>113,114</sup>

The North Carolina General Assembly appropriated \$1.2 million in nonrecurring funds in SFY 2008 to the North Carolina Office of Rural Health and Community Care (NCORHCC) to support and expand co-location of licensed mental health professionals with primary care providers. There are currently 44 primary practices across the state that received state funds to develop mental health co-location models. Currently, only 1 of these practices focuses on addressing the

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<sup>ccc</sup> This follows the American Association of Pediatrics recommended wellness screening.

**The North Carolina General Assembly should direct the Division of Medical Assistance and NC Health Choice program to provide coverage for annual wellness visits for children and adolescents**

**Wellness visits should include an annual screening for tobacco, alcohol, and drug use, beginning at age 11**

**Mental health and  
substance abuse  
professionals  
should be  
cross-trained**

substance abuse needs of these patients. These models have been successful in offering early intervention services and identifying and treating problems before they reach a crisis. Further, the co-location model helps make mental health services more accessible to the public.

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 4.12**

**The General Assembly should provide \$750,000 in recurring funds to the Office of Rural Health and Community Care to work in collaboration with the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services; the Governors Institute on Alcohol and Substance Abuse; and the ICARE partnership to support and expand co-location in primary care practices of licensed health professionals trained in providing substance abuse services. Primary care practices eligible for state funding include private practices, federally qualified health centers, local health departments, and rural health clinics that participate in CCNC. Funding can be used to help support co-location of licensed substance abuse professionals in primary care practices or to provide cross-training for mental health professionals who are already co-located in an existing primary care practice for services provided to Medicaid and uninsured patients. 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:**

- (a) **Primary care practices with a co-located mental health professional.**
- (b) **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.**
- (c) **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 third-party payers (including insurers) will not reimburse for brief counseling and referrals. Some insurers have policies which prohibit paying 2 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.<sup>115</sup> Studies have suggested that investments in substance abuse treatment can exceed costs by a ratio of 12 to 1.<sup>116</sup> 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.<sup>117</sup> 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. 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 4.13 (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, NC 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**

**The North Carolina General Assembly should mandate that insurers offer the same coverage for the treatment of addiction diseases as provided for the coverage of physical illnesses**

**tobacco, alcohol, and drugs, provide brief intervention and counseling, and refer necessary patients for specialty services.**

**(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 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 intervene 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 2.7% of North Carolinians age 12 or older needed but did not receive treatment for illicit drug use, and 6.3% needed but did not receive treatment for alcohol use. This would equate with 225,000 North Carolinians who needed but did not receive treatment for illicit drugs, and 526,000 who needed but did not receive treatment for alcohol in 2008. (See Table 4.3.)<sup>23,118</sup>

**There are approximately 225,000 North Carolinians who needed but did not receive treatment for illicit drugs, and 526,000 who needed but did not receive treatment for alcohol in 2008**

**Table 4.3**  
**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 <i>not</i> 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 <i>and</i> 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 <i>not</i> 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.

**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.<sup>119-122</sup> 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.<sup>123</sup> These findings are supported by focus groups conducted in 2 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.<sup>124</sup> Some of the common themes that were 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 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.
- *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.

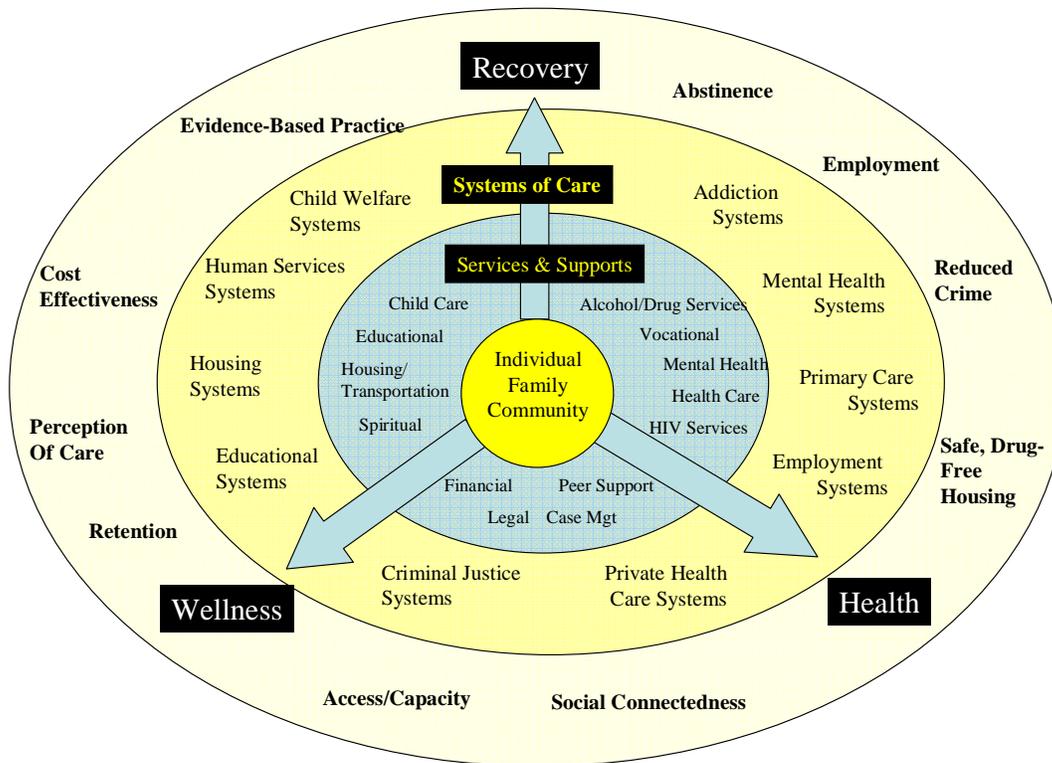
As noted in Chapter 3, the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services has created a framework to provide a comprehensive system of treatment and recovery supports that follows the American Society of Addiction Medicine (ASAM) levels of care. Theoretically, each 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-

**A full continuum of care requires prevention, early intervention and engagement, a full continuum of treatment services, and recovery supports**

based support, relapse prevention, and self-help and support groups (such as Narcotics Anonymous, Alcoholics Anonymous, or other 12-step groups).

A full continuum of care requires prevention, early intervention and engagement, a full continuum of treatment services, and recovery supports. Chart 4.3 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.

**Chart 4.3  
Recovery-Oriented System of Care**



Source: Whitter M. Recovery-oriented systems of care (ROSCs). What are they? Why should we adopt them in our state? Presentation to the NC IOM Substance Abuse Task Force; February 15, 2008; Cary, NC.

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 2 hours), urgent (within 48 hours), and routine services (within 7 calendar days, now revised to 14 days) care, as well as those who received services within the prescribed time. Statewide, 44,381 individuals requested services in the second quarter of SFY 2007-2008. A little less than one-fifth (17.9%) of those requesting services were determined to need emergent care. Statewide, most people (98.3%) who needed emergent care received it within 2 hours; however, not all LMEs were able to provide emergency services to clients within the required 2-hour time frame. LMEs ranged from 89.4% to 100% in the provision of timely services to those determined to need emergent services. A little more than one-tenth of the population (13.7%) was determined to need urgent care. Statewide,

**Most communities lack an adequate infrastructure to meet all the needs of people with substance abuse disorders**

**The availability of services varies across LMEs**

**The LMEs with the highest percentage served are only serving approximately 11% of the adults who need services, or 8.6% of children, whereas the LMEs with the lowest percentage served are serving 4.4% of adults and only 3.5% of children who need services**

78.6% of these individuals were provided care within 48 hours. Again, LME performance varied considerably. LMEs ranged from 45.3% to 100% in the provision of urgent care within the specified time frames. Statewide, 62.1% of the cases that were determined to need routine care were provided a face-to-face assessment and/or treatment service within 7 calendar days. There was wide variation in the provision of routine care, with LMEs ranging from 39% to 86.6% in the proportion of consumers being served within the required 14 day time frame.<sup>125</sup>

Best practice for initiating and engaging consumers into care suggests that an individual receive 2 visits within the first 14 days of care and then 2 more in the next 30 days (a total of 4 visits within 45 days of engagement with the system). The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services established LME performance targets stating that 70% of consumers should receive 2 visits within the first 14 days of care, and 50% should receive 4 visits within the first 45 days of care. Statewide, the LMEs are falling short of this target, with only 64% of substance abuse consumers receiving 2 visits within the first 14 days of care (ranging from 47% to 89% among LMEs). Statewide, 47% of consumers had 4 visits within the first 45 days of care (ranging from 21% to 75% among LMEs). Once a consumer is discharged from a state-operated facility such as an ADATC, the consumer is expected to receive a community-based service within 7 days of discharge. Just over one-fourth (26%) of substance abuse consumers discharged from an ADATC received a community-based service within 7 days in North Carolina, compared to a target of 36%. Again, this varied across LMEs, ranging from 13% to 40%. An additional 11% were seen within 8-30 days of discharge.<sup>126</sup>

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 4.4.) The LMEs with the highest percentage served are only serving approximately 11% of the adults who need services, or 8.6% of children, whereas the LMEs with the lowest percentage served are serving 4.4% of adults and only 3.5% of children who need services.<sup>127</sup>

**Table 4.4**  
**Few People who Needed Substance Abuse Services were Served in**  
**the LMEs with State Funds (July 2006-June 2007)**

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

	<b>Children</b>		<b>Adults</b>
Catawba-Burke	<b>8.6%</b>	Pathways	<b>10.9%</b>
CenterPoint	<b>8.2%</b>	Southeastern Regional	<b>10.7%</b>
Pathways	<b>8.0%</b>	Johnston	<b>9.3%</b>
Durham	<b>7.8%</b>	Western Highlands	<b>9.2%</b>
Sandhills Center	<b>7.8%</b>	Southeastern Center	<b>9.1%</b>
ACR	<b>7.6%</b>	Catawba-Burke	<b>8.8%</b>
ECBH	<b>7.5%</b>	Five County	<b>8.7%</b>
OPC	<b>7.3%</b>	CenterPoint	<b>8.6%</b>
Smoky Mountain	<b>7.0%</b>	Albemarle	<b>7.8%</b>
Southeastern Regional	<b>6.3%</b>	Durham	<b>7.6%</b>
Western Highlands	<b>6.0%</b>	Smoky Mountain	<b>7.5%</b>
Southeastern Center	<b>5.9%</b>	ACR	<b>7.3%</b>
Five County	<b>5.6%</b>	Mecklenburg	<b>6.9%</b>
Cumberland	<b>5.3%</b>	Cumberland	<b>6.8%</b>
Crossroads	<b>5.1%</b>	Guilford	<b>6.7%</b>
Mecklenburg	<b>4.6%</b>	ECBH	<b>6.6%</b>
Foothills	<b>4.5%</b>	Sandhills Center	<b>6.6%</b>
Guilford	<b>4.3%</b>	Foothills	<b>6.6%</b>
Beacon Center	<b>4.1%</b>	OPC	<b>6.3%</b>
Onslow-Carteret	<b>4.1%</b>	Crossroads	<b>5.8%</b>
Johnston	<b>4.0%</b>	Beacon Center	<b>5.5%</b>
Wake	<b>4.0%</b>	Wake	<b>5.1%</b>
Albemarle	<b>3.6%</b>	Eastpointe	<b>5.0%</b>
Eastpointe	<b>3.5%</b>	Onslow-Carteret	<b>4.4%</b>
<b>Statewide</b>	<b>5.8%</b>	<b>Statewide</b>	<b>7.2%</b>

Note: These data do not include the 5 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, 2008.

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 services. Yet in some regions, substance abuse providers are unwilling to contract with the LME because of administrative and paperwork hassles and low reimbursement. Providers that serve consumers in multiple LMEs have even greater administrative barriers, with different LMEs using

**Some substance abuse providers are unwilling to contract with LMEs because of administrative and paperwork hassles and low reimbursement**

**DMHDDSAS should develop a recovery-oriented system of care that ensures that an appropriate mix of substance abuse services and recovery supports is available and accessible throughout the state for both children and adults**

different contracts and procedures. DMHDDSAS has issued proposed regulations which would give it the authority to standardize forms and procedures across LMEs, but these rules have not become final.<sup>ddd</sup> Even after the rules become final, the Division will need time to standardize all the forms and procedures. Other providers are unwilling to participate because of the low reimbursement rates. And others may want to participate but be unable to participate 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).<sup>eee,127</sup> 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. To accomplish this, the Task Force recommends:

**Recommendation 4.14 (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**

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<sup>ddd</sup> DMHDDSAS issued proposed rules which give the Secretary the authority to standardize forms and processes regarding Person-Centered Plans; screening, triage, and referral interviews; claims processing; contracts; memorandum of agreement; quality improvement plans; strategic plans, local business plans, and authorization of state-funded services; endorsement of providers of services; and letters of support for residential facilities. LMEs are not allowed to alter or add any additional requirements to the standardized forms or procedures. (10 NCAC 26C.0402.) In addition, DMHDDSAS issued other proposed rules governing clean claims. These rules govern LMEs and public and private providers who contract with LMEs. (10 NCAC 27A.0301 et. seq.) Both set of rules have proposed effective dates of May 1, 2008.

<sup>eee</sup> This lowest level of intensity accounts for approximately one-half of all LME spending on adults and about one-third of the spending for children.

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.
- (b) DMHDDSAS should develop a plan to implement performance-based incentive contracts and agreements to ensure that state-specified performance targets are met. Performance based contracts should include at a minimum:
- (1) Incentives for timely engagement, active participation in treatment, program retention, program completion, and ongoing participation in recovery supports.
  - (2) Data requirements to ensure that program performance is measured consistently 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 Local Management Entities (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,

**DMHDDSAS should develop a plan to implement performance-based incentive contracts and agreements to ensure that state-specified performance targets are met**

**DMHDDSAS  
should develop  
consistent  
standards across  
the state that will  
reduce paperwork  
and administrative  
barriers**

**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.<sup>fff</sup>**
- (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 4.14.a-b, report on the progress in developing the plan for electronic health records in Recommendation 4.14.c, and report on progress made in implementing Recommendations 4.13.d-g to the NC IOM Task Force on Substance Abuse Services and 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 6 LMEs (1 rural and 1 urban in each of the DMHDDSAS 3 regions). This pilot would implement the recovery-oriented system of care plan, pursuant to Recommendation 4.13, to test and evaluate this system of care before implementing it statewide.

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<sup>fff</sup> 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.

**Recommendation 4.15**

- (a) The North Carolina General Assembly should appropriate \$17.2 million in SFY 2009 and \$34.4 million in SFY 2010 to DMHDDSAS in recurring funding to support 6 pilot programs to implement county or multicounty comprehensive recovery-oriented systems of care. DMHDDSAS should make funding available on a competitive basis, selecting 1 rural pilot and 1 urban pilot in the 3 MHDDSAS 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 ASAM services for both adolescents and adults.
  - (3) Provide recovery supports for those who return to their communities after receiving substance abuse specialty care. The goal of the project is to reduce the length and duration of relapses that require additional specialty SA 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.
- (b) The North Carolina General Assembly should appropriate \$750,000 of the Mental Health Trust Fund to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services to arrange for an independent evaluation of these pilot programs. The evaluation should examine whether the comprehensive pilot programs lead to increased number of patients served, timely engagement, active participation with appropriate intensity of services, and program completion.
- (c) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services should use the findings from the independent evaluation of the pilot programs implementing county or multicounty 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

**The North Carolina General Assembly should appropriate \$17.2 million in SFY 2009 and \$34.4 million in SFY 2010 to DMHDDSAS in recurring funding to implement comprehensive recovery-oriented systems of care**

**Mental Health within 6 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 1 FTE recovery supports director, 3 FTE adult substance abuse treatment continuum regional consultants, 1 substance abuse prevention services information system manager, 2 quality management substance abuse research analysts, 3 substance abuse prevention services and coalition development regional consultants, and 3 child and adolescent substance abuse treatment continuum regional clinical consultants.<sup>ggg</sup> (See Appendix A for more description of position responsibilities). Additionally, staff are needed in other state agencies to implement other Task Force recommendations.<sup>hhh</sup> Thus the Task Force recommends:

**Recommendation 4.16 (PRIORITY RECOMMENDATION)**

**The North Carolina General Assembly should appropriate:**

- (a) \$650,000 in recurring funds to DMHDDSAS 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,**

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<sup>ggg</sup> 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 7 positions on the Best Practice Team and 2 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.

<sup>hhh</sup> The Division of Medical Assistance needs a total of \$81,000 in recurring funds to support 5 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 3 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.

- 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 4.1-4.16 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, 4.2, and 4.14 above.**
  - (c) \$130,000 in recurring funds to ORHCC to hire a statewide coordinator and administrative support to work directly with the regional CCNC quality improvement specialists funded in recommendation 4.10 and to assist in implementing recommendation 4.12.**
  - (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 5 positions to implement Recommendations 4.8-4.10, 4.12, and 4.13-4.15 above.**



## CHAPTER 5

### DATA

Policymakers need good data to make informed policy choices. This is particularly important in the context of substance abuse services. We know that 8.5%<sup>23</sup> of the state's population has substance abuse problems, but less than 10%<sup>126</sup> of those in need of services are receiving them through the DMHDDSAS system. Despite the large percentage of the population that needs services, state and local agencies were unable to spend all the money the General Assembly appropriated for substance abuse services. Data are needed to profile sections of the population most at risk for substance use and abuse and to identify the populations in need of substance abuse services; the type of services used both within DMHDDSAS and through other public and private providers of care; the availability and accessibility of services and recovery supports; service use, intensity, and completion rates; and recidivism rates. Ideally, data would be available at both the state and the local level. Further, programs and services should be evaluated to determine that the funding is well spent and programs are achieving positive outcomes.

**Better data are needed to determine if programs are achieving positive outcomes**

While there are many data sources to inform policymakers about the need and use of substance abuse services, there are still many gaps. This chapter describes data available to assess the scope of the substance abuse problem, information on prevention and treatment being provided by DMHDDSAS, and data needed to help improve substance abuse surveillance and services.

#### AVAILABLE DATA ON THE SCOPE OF THE SUBSTANCE ABUSE PROBLEM

There are a number of data sources available to help monitor tobacco, alcohol, and drug use in North Carolina. Most of the data come from population-based surveys, which capture information on the use of different types of substances, frequency of use, and perceptions of risk. The surveys are targeted to different populations (ie, adults and youth). Most provide reliable estimates at the state level but stop short of generating valid estimates at either the regional or county levels. The survey data include:

- *Behavioral Risk Factor Surveillance Survey (BRFSS)* is a telephone survey sponsored by the Centers for Disease Control and Prevention and managed locally by the NC Center for Health Statistics (<http://www.schs.state.nc.us/SCHS/data/brfss.cfm>). The BRFSS measures the medical and behavioral health needs of

the adult population by state, including tobacco and alcohol use, tobacco cessation efforts, and tobacco prevention. BRFSS data are available for the state as well as at the regional level and at the county level for the 22 largest counties.

- *Child Health Assessment Monitoring Program (CHAMP)* is a call-back survey of the BRFSS, where questions on a child's health are asked of the parent or other caregiver. CHAMP is managed locally by the NC Center for Health Statistics (<http://www.schs.state.nc.us/SCHS/champ/index.html>). CHAMP asks parents about tobacco prevention and their child's tobacco use. CHAMP data are available at the state level only.
- *Youth Risk Behavior Survey (YRBS)* is a self-administered school-based survey sponsored by the Department of Public Instruction. The YRBS monitors selected risk behaviors among middle and high school students, including detailed questions about tobacco, alcohol, and drug use (including questions about individual illicit drugs) and tobacco cessation efforts. School participation is voluntary in North Carolina. YRBS data are available at the state and regional level from the Department of Public Instruction (<http://www.nchealthyschools.org/data/yrbs/>) and for Charlotte-Mecklenburg from the Centers for Disease Control and Prevention (<http://www.cdc.gov/HealthyYouth/yrbs/index.htm>).
- *National Survey of Drug Use and Health (NSDUH)*, formerly the National Household Survey of Drug Use, is a national survey of states' populations sponsored by the Substance Abuse and Mental Health Services Administration (<http://www.oas.samhsa.gov/nhsda.htm>). The NSDUH surveys people aged 12 and older. Results are available for the whole population, youth, young adults, and older adults and include information on tobacco, alcohol, and drug use, abuse and dependency, and perceptions of risk. Data are available at the state level.

In addition to survey data, there are a number of other sources of information on the scope of the substance abuse problem in North Carolina:

- *Law Enforcement and Regulation* data provide information on substance abuse arrests, ABC and ALE permit violations, and drug seizures. Law enforcement data sources include the State

- Bureau of Investigations, Alcohol and Beverage Control, and the Drug Enforcement agency.
- The State Bureau of Investigation has data on arrests for drug offenses, DWI, drunk and disorderly, and liquor law violations for the state and county (<http://sbi2.jus.state.nc.us/crp/public/Default.htm>; select a year, then arrests and clearances, then statewide or county). In 2006, 24% of arrests were for drug or alcohol offenses.
  - Data from NC Alcoholic Beverage Control Alcohol Law Enforcement (ABC/ALE violations) must be obtained from local offices.
  - The Drug Enforcement Agency has data on drug seizures, by state (<http://www.usdoj.gov/dea/pubs/states/northcarolina.html>). In 2007, over 12,000 pounds of illegal drugs were seized in North Carolina and 153 methamphetamines labs raided.
- *Highway Safety Research Center's* NC Alcohol Facts Web site (<http://www.hsrb.unc.edu/ncaf/>) provides data from the Administrative Office of the Courts and the Department of Motor Vehicles on alcohol-related crashes and impaired-driving court cases. Data are available at the state and county level. In 2006, 5% of crashes were alcohol-related, and there were 60,000 cases of driving while impaired.
  - *NC Disease Event Tracking and Epidemiological Collection Tool (NC-DETECT)* is a collaboration between NC Division of Public Health and the North Carolina Hospital Association. It captures admissions data from community hospital emergency departments, including admissions related to substance or alcohol diagnoses. Data are reported at the state and LME level. Data are to be reported quarterly by DHHS starting in SFY 2008. The first report (<http://www.ncdhhs.gov/mhddsas/statpublications/reports/emergdeptreport11-15-07.pdf>) came out in the fall of 2007. The initial report found that 3% of all emergency room admissions are for substance abuse.
  - *State Center for Health Statistics* data provide information on the number of deaths related to substance use. The annual Detailed Mortality Statistics report (<http://www.schs.state.nc.us/SCHS/deaths/dms/2006/>) includes information on deaths directly linked to substance use (ie, harmful use, dependence and behavioral/mental disorders due

to substance use). The annual Vital Statistics Report, Vol. II: Leading Causes of Death, (<http://www.schs.state.nc.us/SCHS/data/vitalstats.cfm>) includes data on causes of death related to substance use such as lung cancer and chronic liver disease and cirrhosis. Data are available at the state and county level. However, because alcohol and drug use are often underreported, these data may undercount the number of deaths in the state related to substance use.

- *Departments of Social Services* provide data on whether alcohol or substance abuse was a contributing factor in child protective services investigations. Data are available for the state and all counties (<http://www.dhhs.state.nc.us/dss/stats/cr.htm>). In SFY 2006, 5% of substantiated child maltreatment cases were due to substance abuse. DSS also collects information on the percentage of cases where substance abuse was a contributing factor in the investigation and the number of children removed to foster care due to parental or child substance use. These data must be requested from DSS.
- *Department of Corrections, Division of Alcoholism and Chemical Dependency Programs (DACDP)* Annual Legislative Report (<http://www.doc.state.nc.us>) includes state level data on inmates with substance abuse problems, inmates receiving treatment, and evaluations of the various treatment programs offered. In SFY 2007, 63% of entering inmates indicated a need for substance abuse treatment.
- *The Department of Juvenile Justice and Delinquency Prevention (DJJDP)* conducts needs assessments that provide data on the needs of individuals in the system, including substance abuse services. State level data are available in the DJJDP Annual Report (<http://www.ncdjdp.org/>). In 2006, 22% of juveniles assessed needed further assessment for substance abuse, and 20% needed substance abuse treatment.
- *Department of Public Instruction* data provide information on the possession of alcohol and illicit substances on school property at the school LEA and state levels. In SFY 2007, there were 2 instances of alcohol possession and 8 instances of drug possession per 1,000 high school students. Data are reported in the Annual Report of School Crime and Violence (<http://www.ncpublicschools.org/research/discipline/reports/#schoolviolence>).

- *Higher Education Institutions* are required by law to disclose crime statistics for their campuses and surrounding areas, including liquor and drug law violations if they result in an arrest or disciplinary referral. Data are available from the US Department of Education, Office of Postsecondary Education (<http://ope.ed.gov/security/>) for all public and private institutions of postsecondary education.

Currently, the Center for Child and Family Policy at Duke University is working on creating an online surveillance network of adolescent substance use for all 100 counties. The goal is to create a user-friendly portal that will allow visitors to identify drug abuse patterns in each county, identify changes in drug abuse patterns over time, and detect emerging substance abuse trends. Data will come from a variety of sources including the Youth Risk Behavior Survey, the State Bureau of Investigation, and the Department of Public Instruction. Over time, data from state agencies such as the State Medical Examiner, the Department of Juvenile Justice and Delinquency Prevention, Division of Social Services, Administrative Office of the Courts, US Census Bureau, the Centers for Disease Control and Prevention, Health Resource and Service Administration, and others will be added. This project is funded by a Substance Abuse and Mental Health Services Administration grant with the North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services and the University of North Carolina at Greensboro. These data will be available online in summer 2008.

#### **AVAILABLE DATA FOR MONITORING PREVENTION AND TREATMENT SERVICES FUNDED THROUGH DMHDDSAS**

DMHDDSAS collects information on clients served within the DMHDDSAS system. These data include information about the individual users (ie, demographics, financial eligibility), the number of people who seek services, the number who receive services, length of time in treatment, services rendered, the cost of services, program performance, individual outcomes, and consumer satisfaction. Data sources within MHDDSAS include:

- *Client Data Warehouse (CDW)* is the hub of DMHDDSAS data for the state. It captures individual consumer demographics, financial eligibility, clinical information, and specialized substance abuse data such as drug(s) of choice. Data may be submitted by LMEs on a daily basis. CDW can be linked to the other DMHDDSAS data systems described below and may potentially be linked to other external data systems within the Division of Social Services or the Division of Public

Health, although this has not been pursued. CDW is the basis for the annual DMHDDSAS statistical reports. Using the Client Data Warehouse, DMHDDSAS can generate local, state, and federal reports for the block grants.

- *Integrated Payment and Reporting System (IPRS)* is the behavioral health claims system for LMEs. It captures substance abuse diagnostic information, the type, date and volume of services rendered, and the cost of services. The IPRS captures state expenditures (not including Medicaid) but is not able to capture non-state expenditures (ie, payment from private funds, services not covered by DMHDDSAS). The IPRS will be able to report additional expenditures made by specific counties starting on July 1, 2008.
- *Healthcare Enterprise Accounts Receivable Tracking System (HEARTS)* is a complement to the IPRS that captures information for services provided in the 14 state institutions, including ADATCs. Similar to IPRS, HEARTS collects data on individual consumer diagnostic information, the type, date, and volume of services rendered, and the cost of services.
- *North Carolina Treatment Outcomes and Program Performance System (NC-TOPPS)* is a Web-based performance and outcomes database. DMHDDSAS requires providers to do initial, update, and discharge interviews with consumers 6 years of age or older who are admitted for treatment as a member of an IPRS target population and are receiving services. NC-TOPPS captures descriptive information (ie, demographics, drug problem, diagnoses, treatment attendance, services received), information on patients' daily lives before and during treatment (ie, employment, living arrangement, substance use, involvement with the law), outcomes (ie, quality of life, participation in positive activities, behavior problems), and program performance (patient ratings of whether treatment helped them reduce substance use and increase positive outcomes in their lives). Statewide data are available online ([http://www.ndri-nc.org/nc-topps\\_research\\_feedback.htm](http://www.ndri-nc.org/nc-topps_research_feedback.htm)). NC-TOPPS can be used by providers for patient-specific, local, regional, or state planning. DMHDDSAS generates biannual reports for the state and LMEs. Reports can also be run for specific providers upon request.
- *Mental Health Statistics Improvement Program (MHSIP) Consumer Satisfaction Survey* is administered to mental health and substance abuse patients. These surveys offer patients the

opportunity to confidentially evaluate service quality based on overall satisfaction, access, appropriateness, participation in treatment, and outcomes. The surveys are administered annually but are not able to obtain information from patients who drop out of treatment. DMHDDSAS is currently reevaluating the survey methodology.

It is important to note that these data do not include information on patients receiving treatment in the private sector or services funded through self-pay, grants, private partnerships, or expenditures for prisoners treated in jail treatment programs. County expenditures have not previously been included in DMHDDSAS data but will be starting on July 1, 2008

### **GAPS IN DMHDDSAS DATA COLLECTION**

Although there are a number of data sources providing state-level data on substance abuse prevalence, there are far fewer sources of comparable information at the county or regional level. LMEs need enhanced data on substance abuse prevalence at the local level. While data on treatment and outcomes in their areas are available, LME utilization of this information needs to be strengthened in order to enhance planning to ensure that there is adequate capacity at the local level to respond effectively.

The state collects extensive information on substance abuse prevention efforts locally but does not currently assess whether such prevention efforts are impacting community and family norms and behaviors.

While DMHDDSAS collects a vast array of data, there are some limitations in the current data systems. For example, data are not always reported consistently across LMEs (especially among LMEs that operate managed care systems). LMEs and providers do not always report their required data. This has been particularly problematic in the collection of timely and complete data through NC-TOPPS. Further, the multiple systems that the Division utilizes for the collection of data are not integrated, but are stand-alone systems serving one specific purpose, including NC-TOPPS.<sup>iii</sup> The Division does not have sufficient staff capacity to analyze all the captured data, identify trends, and successfully advocate for appropriate performance standards. If data collection were enhanced and analyzed, programs and services could be better informed.

**DMHDDSAS does not have sufficient staff capacity to analyze all the captured data, identify trends, and successfully advocate for appropriate performance standards**

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<sup>iii</sup> The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services is planning an evaluation of their data systems. One issue they will evaluate is whether it is possible to integrate the different data systems.

**The Task Force was particularly interested in identifying appropriate performance measures to gauge individuals' interactions with their LME**

The Task Force was particularly interested in identifying appropriate performance measures to gauge individuals' interactions with their LME. For example, information on initial contact response times, screening, triage, referrals, and treatment would allow for better evaluation of how well LMEs respond to the needs of their communities. Washington State has developed performance measures for the public sector substance abuse system that can be used as a model for the state's performance measures.<sup>128</sup> If payments are ultimately linked to these performance measures—for example, through incentive based performance payments—then the state needs to ensure that organizations do not introduce risk selection to discourage more complex clients from seeking or staying in care.<sup>129</sup>

To enhance the state's data collection system, the Task Force recommends:

**Recommendation 5.1**

- (a) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services should develop a long term consumer-centered Information Technology (IT) vision and plan to meet the state's data needs through enhanced integration of current systems, including the statewide adoption of an Electronic Health Record.**
- (b) The North Carolina General Assembly should appropriate \$1.2 million in recurring funds to DMHDDSAS to enhance and expand current data collection systems and develop new data systems as needed to provide epidemiological information on people with substance abuse issues across the lifespan.**
- (c) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services should develop capacity to utilize data to identify patterns and trends in the prevalence, prevention, and treatment of substance abuse so as to provide an evidence-based process for the development and evaluation of prevention and treatment interventions, as well as provide a data-driven platform for the funding of prevention and treatment programs across the state.**
- (d) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services shall review national research on patterns of consumer participation and client referral within the substance abuse prevention and treatment systems. Special studies should be undertaken as needed to determine if there are systemic patterns and barriers to identification, referral, and engagement of**

**substance abuse consumers into treatment in North Carolina.**

**(e) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services should enhance their collection and analysis of substance abuse services to include information on:**

- (1) Active identification and timely screening, triage, and referral into care.**
- (2) Timely and effective coordination of care between screening, triage, and referral (STR) and engagement in treatment.**
- (3) Length of time in treatment.**
- (4) Responsiveness of community crisis systems, including utilization of local detoxification and inpatient programs.**
- (5) Admission and readmission into ADATCs and state hospitals.**
- (6) Continuity of care after discharge from detox, inpatient programs, ADATCs, and state hospitals.**
- (7) Provision of recovery-oriented treatment and support within communities.**
- (8) Client demographic data including age, race, homeless status, drug use severity, and dual diagnosis status.**

In addition to improving data collection, analysis, and evaluations of current programs, the Task Force also focused on the need for more comprehensive data about the various funding streams for substance abuse services. DMHDDSAS currently collects data on services funded through DMHDDSAS and Medicaid and will soon collect data on services funded through county expenditures. DMHDDSAS data do not include information on people receiving prevention and treatment services in the private sector or services funded through self-pay, grant, private partnerships, or expenditures by other state agencies (eg, the Department of Corrections or the Department of Public Instruction). Although DMHDDSAS may not be able to collect data on services funded through insurers, grants, or out-of-pocket payments, obtaining information on services provided through all federal, state, and local funds will give a more complete understanding of the availability and gaps in the current service system. Therefore, the Task Force recommends:

#### **Recommendation 5. 2**

**(a) The Department of Juvenile Justice (Juvenile Crime Prevention Council), Department of Corrections (Criminal Justice Partnership program), Division of Public**

**Policymakers and agency officials need more comprehensive data about the people served and services offered through various funding streams for substance abuse services**

**Instruction, Division of Social Services, Division of Public Health, and county commissioners should provide data to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services on public funds used to support substance abuse prevention and treatment services, number of people served, and types of services provided in each county.**

- (b) The North Carolina General Assembly should choose and implement an equalization formula to ensure that Local Management Entities (LMEs) receive comparable funding to achieve equity in access to care and services while recognizing the inherent challenges of delivering services in low-wealth rural counties. This equalization formula should be used to distribute any new state funds provided to support substance abuse prevention and treatment activities, with low-funded LMEs obtaining a higher proportion of the funding.**

## CHAPTER 6 CONCLUSION

Substance abuse is a complex and costly chronic illness. The prevention, diagnosis, and treatment of substance abuse is difficult, as it is with many other chronic illnesses. Many individuals with substance abuse problems either do not recognize they have a problem or do not seek treatment due to access barriers. More than 90% of people that abuse or depend on alcohol or illicit drugs in North Carolina do not obtain services. Many of those who do seek treatment may find a system that is inadequate to meet their needs.

Alcohol and drug abuse cost the North Carolina economy over \$12.4 billion in direct and indirect costs in 2004.<sup>5</sup> This includes the direct costs of prevention, treatment, and rehabilitation as well as the indirect costs associated with motor vehicle accidents, premature death, comorbid conditions, loss of productivity, and unemployment. Yet only 6% of the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) expenditures in 2005 were for substance abuse services. Overall, North Carolina spent less than \$140 million to fund substance abuse services in the state, a sum that left North Carolina substance abuse services underfunded in relation to other states.<sup>14</sup> A report presented to the North Carolina General Assembly in 2007 estimated it would take an additional \$35 million in appropriations to achieve parity with national per capita funding for substance abuse services.<sup>4</sup>

The North Carolina General Assembly asked the North Carolina Institute of Medicine (NC IOM) to convene a task force to study substance abuse services in the state (SL-2007-323 §10.53A). The Task Force was charged with developing interim recommendations for the 2008 session and with presenting its final report to the 2009 session.

The Task Force met 7 times between October 2007 and April 2008. Most of the Task Force's work focused on developing a comprehensive system of care to provide evidence-based interventions based on a person's need. This comprehensive system begins with a strong prevention effort, targeted at youth and adolescents. Targeting youth and young adults will help reduce the number of people who later become addicted, as evidence shows that people who initiate substance use in childhood or adolescence are more likely to later become addicted.

Early screening and intervention strategies are needed for people who are starting to engage in risky behaviors but who have not yet become

**More than 90% of people that abuse or depend on alcohol or illicit drugs in North Carolina do not obtain services**

**Many of those who do seek treatment may find a system that is inadequate to meet their needs**

addicted. 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.

The Task Force also examined the data needs of the state. North Carolina needs good data to make informed policy choices. Not only does the state need to enhance its data collection capacity, it also needs to enhance its analytic capability to better identify needed changes in the existing substance abuse service system.

**Eight of the Task Force's recommendations were considered top priorities, although all of the recommendations are important**

The following is a list of the Task Force's interim recommendations along with the agency or organization charged with addressing the recommendation. Eight of these recommendations were considered top priorities, although all of the recommendations are important. Recognizing that not all of the recommendations could be implemented at once, the Task Force prioritized those that members believed would have the biggest impact on preventing people from using or abusing alcohol, tobacco, or other drugs as well as treating those who have substance abuse problems. These priority recommendations are noted below.

The Task Force will continue to meet over the next 6 months to address more of the legislative questions. In addition to the topics covered in this interim report, the final report will include recommendations around workforce issues, different financing options, and the availability and adequacy of substance abuse services offered through other public agencies.

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
<b>Prevention</b>						
<b>Recommendation 4.1</b> <b>(PRIORITY RECOMMENDATION)</b> <b>(a) The North Carolina General Assembly should appropriate \$1,945,000 in SFY 2009 and \$3,722,000 in SFY 2010 in recurring funds to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) to develop a comprehensive substance abuse prevention plan for use at the state and local levels, consistent with the Center for Substance Abuse Prevention (CSAP) Strategic Prevention Framework. The plan should increase the capacity at the state level and in 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.</b> <b>(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).</b> <b>(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> <b>(b) Of the recurring funds appropriated by the North Carolina General Assembly, \$1,770,000 in SFY 2009 and \$3,547,000 in SFY 2010 should be used to fund 6 pilot projects to implement county or multi-county comprehensive prevention plans consistent with the statewide comprehensive substance abuse prevention plan.</b>	 \$1.945m (FY09) \$3.722m (FY2010)			 SA providers	 DPI, DJJ, DSS, DPH, Univ.	 Cons. & family groups, other

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
<p><b>DMHDDSAS should make funding available on a competitive basis, selecting 1 rural pilot and 1 urban pilot in the 3 MHDDSAS 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 6 pilot projects should:</b></p> <p><b>(1) Involve community agencies, including but not limited to the following: local management entities, local substance abuse providers, primary care providers, health department, social services, 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.</b></p> <p><b>(2) Be comprehensive, culturally appropriate, and based on evidence-based programs, policies, and practices.</b></p> <p><b>(3) Be based on a needs assessment of the local community that prioritizes the substance abuse prevention goals.</b></p> <p><b>(4) Include a mix of strategies designed for universal, selective, and indicated populations.</b></p> <p><b>(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).</b></p> <p><b>(6) Be continually evaluated for effectiveness and undergo continuous quality improvement</b></p> <p><b>(7) Be consistent with the systems of care principles.</b></p> <p><b>(8) Integrated into the continuum of care.</b></p> <p><b>(c) The North Carolina General Assembly should appropriate \$250,000 of the Mental Health Trust Fund to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services to arrange for an independent evaluation of these pilot</b></p>						

	NCGA	DMHDDSSAS	LME	Providers	Other public agencies	Other
<p>projects and 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. 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.</p> <p>(d) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services 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.</p>						
<p>Recommendation 4.2</p> <p>(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 and availability of substance abuse screening and treatment services, in order to ensure that these educational institutions offer comprehensive substance abuse prevention and treatment services to students enrolled in their schools. These institutions should submit a description of their prevention plan, procedures for early identification of students with substance abuse problems, and information on screening, treatment, and referral services to the Joint</p>	✓				✓ DPI, NCCCS, UNC, Office Non- Public Educ.	

	<b>NCGA</b>	<b>DMHDDSSAS</b>	<b>LME</b>	<b>Providers</b>	<b>Other public agencies</b>	<b>Other</b>
<p>Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse Services, the Appropriations Subcommittee on Education, and Education Committees no later than the convening of the 2009 Session. The description should include the following:</p> <p>(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.</p> <p>(2) Information from the State Board of Education on how local education agencies have implemented the substance abuse component of the Healthful Living curriculum.</p> <p>(3) A plan from the Office of Non-Public Education to incorporate similar prevention strategies into home school and private school settings.</p> <p>(4) Information from the State Board of Education, North Carolina Community College System and the 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.</p> <p>(b) The Department of Public Instruction, North Carolina Community College System, and University of North Carolina system should coordinate their prevention efforts with the prevention activities led by the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services to ensure the development of consistent messages and optimization of prevention efforts. Prevention efforts should be based on research-based programs that focus on intervening early and at each stage of development with age appropriate</p>						

	NCGA	DMHDDSSAS	LME	Providers	Other public agencies	Other
strategies to reduce risk factors and strengthen protective factors before problems develop.						
<p>Rec. 4.3</p> <p>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.</p>		✓			✓ ALE, DPH, DPI	
<p><b>Rec. 4.4</b></p> <p><b>(PRIORITY RECOMMENDATION)</b></p> <p><b>In order to further reduce youth smoking, the North Carolina General Assembly should increase the tobacco tax per pack to the national average. Increasing the tobacco tax has been shown to reduce smoking, particularly among children and youth. The increased fees should be used exclusively to support prevention and treatment efforts for alcohol, tobacco, and other drugs.</b></p>	✓					
<p>Rec. 4.5</p> <p>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.</p>	✓ \$1.5m				✓ DPH	
<p><b>Rec. 4.6</b></p> <p><b>(PRIORITY RECOMMENDATION)</b></p> <p><b>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.</b></p>	✓					
<p><b>Rec. 4.7</b></p> <p><b>(PRIORITY RECOMMENDATION)</b></p> <p><b>(a) In order to reduce underage drinking, the North Carolina General Assembly should increase the excise tax on beer. Beer is the alcoholic beverage of choice among youth, and youth are sensitive to price increases.</b></p> <p><b>(b) The excise taxes on beer and wine should be indexed to the consumer price index so they can keep pace with inflation. The excise tax</b></p>	✓ Double tax on beer  \$2.0m	✓				

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
<p>for beer was last increased in 1969, and wine was last increased in 1979. The increased fees should be used exclusively to support prevention and treatment efforts for alcohol, tobacco, and other drugs.</p> <p>(c) <b>The General Assembly should appropriate \$2.0 million of the funds raised through the new taxes to support a comprehensive alcohol awareness education and prevention campaign aimed at changing cultural norms to prevent initiation and reduce underage alcohol consumption and to reduce alcohol abuse or dependence among adults.</b></p>						
<p>Recommendation 4.8.</p> <p>(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 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 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. The plan should:</p> <ol style="list-style-type: none"> <li>(1) Focus on women and adolescents at most risk of giving birth to children with fetal alcohol spectrum disorders.</li> <li>(2) Include strategies to educate, train, and support caregivers of children born with fetal alcohol spectrum disorders.</li> <li>(3) Identify strategies to educate primary care providers about early identification of infants and young children born with fetal alcohol syndrome disorder, available treatment and community resources for the affected children and their families.</li> </ol>	 Rpt. to LOC				 DPH, DSS	

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
<b>Early Intervention</b>						
<p>Rec. 4.9</p> <p>(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 training for primary care providers and other health professionals in academic and clinical settings, residency programs or other continuing education programs on screening, brief treatment, and referral for people who have or are at risk of tobacco, alcohol, or substance abuse or dependency. The curriculum should include information about:</p> <ol style="list-style-type: none"> <li>(1) Evidence-based screening tools.</li> <li>(2) Instructions on how to deliver brief interventions, brief treatment and referral and how to assess for co-occurring mental illness.</li> <li>(3) Successful strategies to address commonly cited disincentives to care for patients in a primary care.</li> <li>(4) Strategies to successfully engage people with more severe substance abuse disorders and refer them to specialty addiction providers for treatment.</li> <li>(5) The importance of developing and maintaining linkages between primary care providers and trained addiction specialists to ensure continuity of care.</li> </ol>					<p>✓ AHEC</p> <p>✓ Gov Inst., health prof'l schools, resid. pgms</p>	
<p><b>Rec. 4.10</b> <b>(PRIORITY RECOMMENDATION)</b></p> <p>(a) <b>The North Carolina General Assembly should appropriate \$1.5 million in recurring funds to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS). The funds shall be used to develop a Memorandum of Agreement 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 organizations to educate and encourage health care professionals to use evidence-</b></p>	<p>✓ \$1.5m</p>	<p>✓</p>			<p>✓ AHEC, CCNC</p>	<p>✓ Gov. Inst.</p>

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
<p>based screening tools and offer counseling, brief intervention, 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 SBIRT model. The DMHDDSAS should work with ORHCC, the Governors Institute on Alcohol and Substance Abuse, AHEC and other appropriate organizations to develop an implementation plan and for use of these state funds. The plan should include:</p> <p>(1) Mental health and substance abuse system specialists to work with the 14 Community Care of North Carolina (CCNC) networks. These staff will work directly with the CCNC practices in development, implementation, and sustainability of evidenced based practices and coordination of care between primary care and specialty services. This would include but not be limited to the Screening, Brief Intervention and Referral into Treatment (SBIRT) model allowing for primary care providers to work toward a medical home model that has full integration of physical, mental, developmental 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 bi-directional transition of care between primary care and specialty substance abuse care. These staff should establish, in conjunction with LMEs, CCNC networks, the Governors Institute and regional AHECs, 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.</p>						

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
<p>(2) <b>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 health care professionals identify and address implementation barriers in a variety of practice settings, such as OB/GYN, emergency room, and urgent care.</b></p> <p>(3) <b>Integrated systems for screening, brief intervention, and referral into treatment in outpatient settings with the full continuum of substance abuse services offered through DMHDDSAS.</b></p>						
<p>Rec. 4.11 The North Carolina General Assembly should direct the Division of Medical Assistance, NC Health Choice program to provide coverage for annual wellness visits for children and adolescents. The wellness visit should include, but not be limited to:</p> <p>(a) An annual psychosocial behavioral assessment (b) An annual screening for tobacco, alcohol, and drug use, beginning at age 11. (c) Brief intervention and/or anticipatory guidance at the time of screening.</p>	✓				✓ DMA, NC Health Choice	
<p>Rec. 4.12 The General Assembly should provide \$750,000 in recurring funds to the Office of Rural Health and Community Care to work in collaboration with the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, the Governors Institute on Alcohol and Substance Abuse and ICARE to support and expand co-location in primary care practices of licensed health professionals trained in providing substance abuse services. Primary care practices eligible for state funding include private practices, federally qualified health centers, local health departments, and rural health clinics that participate in CCNC. Funding can be used to help support co-location of licensed substance abuse professionals in primary care practices or to provide cross-training for mental health professionals who are already co-located in an existing primary care practice for services provided to Medicaid and uninsured patients. The goal is to offer evidence-based screening, counseling, brief intervention, and referral to treatment to help patients prevent, reduce or</p>	✓ \$750K	✓			✓ ORHCC	✓ Gov. Inst., ICARE

	NCGA	DMHDDSSAS	LME	Providers	Other public agencies	Other
<p>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:</p> <ul style="list-style-type: none"> <li>(a) Primary care practices with a co-located mental health professional.</li> <li>(b) 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.</li> <li>(c) Primary care practices actively involved in other chronic disease management programs.</li> </ul>						
<p><b>Rec. 4.13</b> <b>(PRIORITY RECOMMENDATION)</b></p> <ul style="list-style-type: none"> <li>(a) <b>The North Carolina General Assembly should mandate that insurers offer coverage for the treatment of addiction diseases with the same durational limits, deductibles, co-insurance, annual limits, and lifetime limits as provided for the coverage of physical illnesses.</b></li> <li>(b) <b>The North Carolina General Assembly should direct the Division of Medical Assistance, NC 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.</b> <ul style="list-style-type: none"> <li>(1) <b>Specifically, the plans should provide reimbursement for:</b> <ul style="list-style-type: none"> <li>i. <b>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.</b></li> <li>ii. <b>CPT codes for health and behavior assessment (96150-96155), health risk assessment (99420), substance</b></li> </ul> </li> </ul> </li> </ul>	✓	✓		✓	✓ DMA, NC Health Choice, SHP, ORHCC	✓ Insurers, Gov. Inst., Prof'l Assoc.

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
<p>abuse screening and intervention (99408, 99409), and tobacco screening and intervention (99406 &amp; 99407) and should not be subject to therapy code pre-authorization limits.</p> <p>iii. Therapy codes (90801-90845) for primary care providers who integrate qualified mental health professionals into their practices.</p> <p>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).</p> <p>(2) Reimbursement for these codes should be allowed on the same day as a medical visit's evaluation and management (E&amp;M) code when provided by licensed mental health and substance abuse staff.</p> <p>(3) Fees paid for substance abuse billing codes should be commensurate with the reimbursement provided to treat other chronic diseases.</p> <p>(4) Insurers should allow psychiatrists to bill using E&amp;M codes available to other medical disciplines.</p> <p>(5) Providers eligible to bill should include licensed health care professionals, including but not limited to primary care providers, mental health and substance abuse providers, emergency room professionals, and other health care professionals trained in providing evidence-based substance abuse and mental health screening and brief intervention.</p> <p>(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.</p>						

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
(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 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.						
<b>Comprehensive Recovery-Oriented System of Care</b>						
<b>Rec. 4.14 (PRIORITY RECOMMENDATION)</b> (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: <ol style="list-style-type: none"> <li>(1) Develop a complete continuum of locally and regionally accessible substance abuse crisis services, and treatment and recovery supports.</li> <li>(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.</li> <li>(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</li> </ol>	✓ LOC	✓	✓	✓	✓ DJJDP, DPI	

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
<p>areas.</p> <p>(4) Include evidence-based guidelines for the number of patients to be served, array of services, and intensity and frequency of the services.</p> <p>(b) DMHDDSAS should develop a plan to implement performance-based incentive contracts and agreements to ensure that state-specified performance targets are met. Performance based contracts should include, at a minimum:</p> <p>(1) Incentives for timely engagement, active participation in treatment, program retention, program completion, and ongoing participation in recovery supports.</p> <p>(2) Data requirements to ensure that program performance is measured consistently across the state.</p> <p>(c) DMHDDSAS should develop a plan to implement electronic health records for providers that use public funds.</p> <p>(d) DMHDDSAS should develop consistent requirements across the state that will reduce paperwork and administrative barriers including but not limited to:</p> <p>(1) Uniform forms for admissions, screening, assessments, treatment plans, and discharge summaries that are to be used across the state.</p> <p>(2) Standard contract requirements and a system that does not duplicate paper work for agencies that serve residents of multiple Local Management Entities (LMEs).</p> <p>(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.</p> <p>(4) Standardized outcome measures.</p> <p>(e) DMHDDSAS should develop a system for timely conflict resolutions between LME and contract agencies.</p> <p>(f) DMHDDSAS should work with its Provider Action Agenda Committee to identify barriers and strategies to increase the quality</p>						

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
<p>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.</p> <p>(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.</p> <p>(h) MHDDSAS should report the plans specified in Recommendation 4.14.a-b, report on the progress in developing the plan for electronic health records in Recommendation 4.14.c, and report on progress made in implementing Recommendations 4.13.d-g to the NC IOM Task Force on Substance Abuse Services and Joint Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse Services no later than September 2008.</p>						
<p>Rec. 4.15</p> <p>(a) The North Carolina General Assembly should appropriate \$17.2 million in SFY 2009 and \$34.4 million in SFY 2010 to DMHDDSAS in recurring funding to support 6 pilot programs to implement county or multi-county comprehensive recovery oriented systems of care. DMHDDSAS should make funding available on a competitive basis, selecting 1 rural pilot and 1 urban pilot in the 3 MHDDSAS regions across the state. Funding should include planning, evaluation, and technical assistance. The pilot programs should:</p> <p>(1) Identify those in need of treatment.</p> <p>(2) Ensure or provide a comprehensive</p>	<p>✓</p> <p>\$17.2m (FY09), \$34.4m (FY2010)</p> <p>\$750K MH Trust Fund LOC</p>	<p>✓</p>	<p>✓</p>			

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
<p>continuum of services for adolescents and adults. Services should include screening, counseling, brief treatment, and the full spectrum of ASAM services for both adolescents and adults.</p> <p>(3) Provide recovery supports for those who return to their communities after receiving substance abuse specialty care. The goal of the project is to reduce the length and duration of relapses that require additional specialty SA care. Programs should work closely with existing recovery services, programs and individuals and build on the foundations that exist in their local communities.</p> <p>(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.</p> <p>(b) The North Carolina General Assembly should appropriate \$750,000 of the Mental Health Trust Fund to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services to arrange for an independent evaluation of these pilot programs. The evaluation should examine whether the comprehensive pilot programs lead to increased number of patients served, timely engagement, active participation with appropriate intensity of services, and program completion.</p> <p>(c) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services 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.</p>						
<p><b>Recommendation 4.16</b>  <b>(PRIORITY RECOMMENDATION)</b>  <b>The North Carolina General Assembly should appropriate:</b>  <b>(a) \$650,000 in recurring funds to DMHDDSAS to hire 13 FTE staff to assist in developing</b></p>	<p>✓ \$961K</p> <p>\$50K</p>	<p>✓</p>			<p>✓ DPI, DMA, ORHCC</p>	

	NCGA	DMHDDSAS	LME	Providers	Other public agencies	Other
<p><b>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 4.1-4.16 and Recommendation 5.1, supra.</b></p> <p><b>(b) \$100,000 in recurring funds to the Department of Public Instruction to hire staff to implement Recommendations 4.1, 4.2, and 4.14 above.</b></p> <p><b>(c) \$130,000 in recurring funds to ORHCC to hire a statewide coordinator and administrative support to work directly with the regional CCNC quality improvement specialists funded in recommendation 4.10, and to assist in implementing recommendation 4.12.</b></p> <p><b>(d) \$81,000 in recurring funds and \$50,000 in non-recurring funds to the Department of Health and Human Services, Division of Medical Assistance to hire 5 positions to implement Recommendations 4.8-4.10, 4.12, and 4.13-4.15 above.</b></p>						
<b>Data</b>						
<p>Recommendation 5.1</p> <p>(a) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services should develop a long term consumer centered Information Technology (IT) vision and plan to meet the state’s data needs through enhanced integration of current systems, including the statewide adoption of an Electronic Health Record.</p> <p>(b) The North Carolina General Assembly should appropriate \$1.2 million in recurring funds to DMHDDSAS to enhance and expand current data collection systems and develop new data systems as needed to provide epidemiological information on people with substance abuse issues across the lifespan.</p> <p>(c) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services should develop capacity to utilize data to</p>	<p>✓ \$1.2m</p>	<p>✓</p>				

	NCGA	DMHDDSSAS	LME	Providers	Other public agencies	Other
<p>identify patterns and trends in the prevalence, prevention and treatment of substance abuse, so as to provide an evidence-based process for the development and evaluation of prevention and treatment interventions, as well as provide a data-driven platform for the funding of prevention and treatment programs across the state.</p> <p>(d) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services shall review national research on patterns of consumer participation and client referral within the substance abuse prevention and treatment systems. Special studies should be undertaken as needed to determine if there are systemic patterns and barriers to identification, referral, and engagement of substance abuse consumers into treatment in North Carolina.</p> <p>(e) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services should enhance their collection and analysis of substance abuse services to include information on:</p> <ol style="list-style-type: none"> <li>(1) Active identification and timely screening, triage and referral into care.</li> <li>(2) Timely and effective coordination of care between screening, triage and referral (STR) and engagement in treatment.</li> <li>(3) Length of time in treatment.</li> <li>(4) Responsiveness of community crisis systems, including utilization of local detoxification and inpatient programs.</li> <li>(5) Admission and readmission into ADATCs and state hospitals.</li> <li>(6) Continuity of care after discharge from detox, inpatient programs, ADATCs and state hospitals.</li> <li>(7) Provision of recovery oriented treatment and support within communities.</li> <li>(8) Client demographic data including age, race, homeless status, drug use severity, and dual diagnosis.</li> </ol>						

	NCGA	DMHDDSSAS	LME	Providers	Other public agencies	Other
<p>Recommendation 5. 2</p> <p>(a) The Department of Juvenile Justice (Juvenile Crime Prevention Council), Department of Corrections (Criminal Justice Partnership program), Division of Public Instruction, Division of Social Services, Division of Public Health, and county commissioners should provide data to the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services on public funds used to support substance abuse prevention and treatment services, number of people served, and types of services provided in each county.</p> <p>(b) The North Carolina General Assembly should choose and implement an equalization formula to ensure that Local Management Entities (LMEs) receive comparable funding to achieve equity in access to care and services while recognizing the inherent challenges of delivering services in low-wealth rural counties. This equalization formula should be used to distribute any new state funds provided to support substance abuse prevention and treatment activities, with low-funded LMEs obtaining a higher proportion of the funding.</p>	✓	✓			✓ DJJDP, DOC, DPI, DSS, DPH, counties	

## APPENDIX A

### North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services Staffing Needs to Implement Task Force Recommendations

No. of FTE Staff Positions Recommended	Position Title	Key Activities Recommended in Areas of Primary Focus
One (1) FTE	Recovery Supports Director	<ul style="list-style-type: none"> <li>• Development and coordination of a statewide recovery-oriented system of care and development of local and regional recovery centers. These centers will facilitate the adoption of a person-centered and holistic system of care for the individual that recognizes the critical role of both services and supports across the lifespan in addressing substance abuse as a chronic, relapsing illness requiring attention to natural and community supports and individualized care and services.</li> </ul>
Three (3) FTEs	Adult Substance Abuse Treatment Continuum Regional Clinical Consultant	<ul style="list-style-type: none"> <li>• Oversight, coordination, and technical assistance for regionally funded, locally hosted Cross Area Service Program (CASP) Adult Substance Abuse Treatment and Residential Services Pilot Program Initiatives.</li> <li>• Implementation of provider relational contracting and incentive-based measures of program performance and consumer outcomes.</li> <li>• Liaison with ADATCS, State Hospitals, residential programs, homeless shelters, and local detoxification centers to ensure access to timely and effective community-based treatment and continuity of care.</li> <li>• Consultation regarding adoption, enhancement, and expansion of the utilization of adult substance abuse evidence-based programs and practices such as SAIOP, SACOT, and CST in coordination with residential treatment programs and recovery housing options.</li> <li>• Consultation regarding enhancement of person-centered, culturally competent, and gender-specific programs for women and their children, persons with HIV disease, criminal justice consumers, and other specialty treatment populations.</li> <li>• Support and technical assistance to substance abuse provider agencies in organizational, clinical, and business functions related to the successful operation of a viable substance abuse provider agency.</li> </ul>

No. of FTE Staff Positions Recommended	Position Title	Key Activities Recommended in Areas of Primary Focus
One (1) FTE	Substance Abuse Prevention Services Information System Manager	<ul style="list-style-type: none"> <li>• Coordination of the statewide adoption, implementation, and evaluation of a recognized provider-based system for the measurement of local program, community, county, LME, regional, and statewide performance measures in the areas of participant outreach, education, identification, engagement, retention, program completion, consumer outcomes, and program efficiency. Implementation will include SAMHSA’s National Outcome Measures (NOMs) for alcohol, tobacco, and other drug (ATOD) prevention, including measurement of pre- and post-intervention measures of individual, family, and community change in targeted areas of individual knowledge, attitudes, perceptions, and behaviors as well as community norms in such areas as alcohol, tobacco, and other drug access, availability, supervision, enforcement, and public acceptance and community norms regarding causes, consequences, and patterns of use, misuse, abuse, and dependence.</li> </ul>
Two (2) FTEs	Quality Management Substance Abuse Research Analyst	<ul style="list-style-type: none"> <li>• Coordination of research, analysis, and consultation regarding epidemiological trends in substance abuse prevalence and penetration levels at statewide, regional, and local levels across consumer populations and development of effective planning strategies for recognition of needs as a prerequisite to effectively targeting populations, programs, and resources.</li> <li>• Coordination of research, analysis, and consultation regarding statewide, regional, and local substance abuse program efficiency and effectiveness in implementation of established evidence-based programs and practices, including assisting LMEs and providers in integrating practice fidelity measures as a routine part of clinical practice implementation, evaluation, and improvement.</li> <li>• Initiation of routine and ongoing research and analysis regarding the elimination or reduction of state, regional, and local business and substance abuse clinical services policies and practices that are cumbersome, counterproductive, inefficient, and costly, and provision of ongoing recommendations for quality improvement measures for more standardized, streamlined, barrier-free, and efficient processes that contribute positively to the business and clinical services environment for substance abuse provider agencies.</li> </ul>

No. of FTE Staff Positions Recommended	Position Title	Key Activities Recommended in Areas of Primary Focus
		<ul style="list-style-type: none"> <li>• Coordination of research, analysis, and consultation regarding statewide, regional, and local substance abuse program patterns of service authorization for necessary, adequate, and efficient utilization of Medicaid and other federal, state and local resources.</li> <li>• Consultation and technical assistance for LMEs and substance abuse providers regarding use of established and promising substance abuse program performance measures in benchmarking and use of incentive-based initiatives in recognizing and improving program performance across the domains of identification, engagement, retention, continuity of care, and treatment program completion.</li> <li>• Consultation, teaching, and technical assistance for LMEs and substance abuse providers regarding use of established and promising substance abuse program consumer clinical outcomes measures in benchmarking and use of incentive-based initiatives in recognizing and improving program performance across the domains of abstinence or reduction in substance abuse, housing, education and employment, arrests, self-help group participation, social connectedness, family functioning, physical and emotional health, and perception of care.</li> </ul>
Three (3) FTEs	Substance Abuse Prevention Services & Coalition Development Regional Consultant	<ul style="list-style-type: none"> <li>• Assistance in developing and implementing a statewide, regional, and local comprehensive prevention plan.</li> <li>• Coordination of regionally funded, locally hosted CASP Comprehensive Prevention Pilot Program Initiatives.</li> <li>• Consultation regarding expansion and enhancement of availability of evidence-based programs and practices in coordination with DPI, DJJDP, and other youth-serving agencies.</li> <li>• Consultation regarding enhancement of person-centered culture and gender-specific programs for specialty populations at high risk for substance abuse.</li> <li>• Support and technical assistance to substance abuse provider agencies in organizational, service, and business functions related to the successful operation of a viable substance abuse provider agency.</li> </ul>

No. of FTE Staff Positions Recommended	Position Title	Key Activities Recommended in Areas of Primary Focus
Three (3) FTEs	Child and Adolescent Substance Abuse Treatment Continuum Regional Clinical Consultant	<ul style="list-style-type: none"> <li>• Oversight, coordination, and technical assistance for regionally funded, locally hosted Cross Area Service Program (CASP) Child and Adolescent Substance Abuse Treatment and Residential Services Pilot Program Initiatives.</li> <li>• Implementation of provider relational contracting and incentive-based measures of program performance and consumer outcomes.</li> <li>• Liaison with residential programs and DJJDP youth development centers and detention centers to ensure access to timely and effective community-based treatment and continuity of care.</li> <li>• Consultation regarding adoption, enhancement, and expansion of the utilization of adolescent substance abuse evidence-based programs and approaches such as IHH, MST, and Day Treatment in coordination with residential treatment programs and recovery housing options.</li> <li>• Consultation regarding enhancement of person-centered, culturally-competent and gender-specific programs for teen parents and their children, persons with HIV disease, juvenile justice, and other specialty treatment populations.</li> <li>• Support and technical assistance to substance abuse provider agencies in organizational, clinical, and business functions related to the successful operation of a viable substance abuse provider agency.</li> </ul>
Total = Thirteen (13) FTEs		

## REFERENCES

1. Friedman D. The biology of addiction and public health. Presentation to the NC IOM Task Force on Substance Abuse Services; October 15, 2007; Cary, NC.
2. National Survey on Drug Use and Health, 2004 and 2005. Substance Abuse and Mental Health Services Administration Web site. [www.oas.samhsa.gov/2k5State/NorthCarolina.htm](http://www.oas.samhsa.gov/2k5State/NorthCarolina.htm). Updated May 8, 2007. Accessed February 27, 2008.
3. North Carolina Department of Health and Human Services; Division of Mental Health, Developmental Disabilities, and Substance Abuse. Overview of DMHDDSAS total system funding: Prepared November 28, 2006. <http://www.dhhs.state.nc.us/MHDDSAS/budget/06-07totalpublicmhddsasystemfunding.pdf>. Accessed February 27, 2008.
4. Joint Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse Services. *Report to the 2007 General Assembly*. Raleigh, NC: North Carolina General Assembly; 2007.
5. 2004 North Carolina epidemiologic data. Alcohol/Drug Council of North Carolina Web site. <http://www.alcoholdrughelp.org/education/documents/sdata2004.pdf>. Accessed October 25, 2007.
6. North Carolina alcohol facts. University of North Carolina Highway Safety Research Center Web site. <http://www.hsrb.unc.edu/index.cfm>. Accessed February 28, 2008.
7. North Carolina Department of Correction, Division of Alcoholism and Chemical Dependency Programs. Annual legislative report FY 2006-2007. North Carolina Department of Correction Web site. [http://www.doc.state.nc.us/Legislative/2008/2006-07\\_Annual\\_Legislative\\_Report.pdf](http://www.doc.state.nc.us/Legislative/2008/2006-07_Annual_Legislative_Report.pdf). Published March 2008. Accessed November 3, 2008.
8. Coppersmith C, Davis J, Hsu Y. *Scorecard on Crime and Justice in North Carolina*. Raleigh, NC: North Carolina Governor's Crime Commission, Criminal Justice Analysis Center; 2007. <http://www.ncgccd.org/pdfs/pubs/2007scorecard.pdf>. Accessed November 3, 2008.
9. North Carolina Judicial Department, Administrative Office of the Courts, Court Management and Information Services. Analysis of FY 2006-2007 Impaired Driving Charges and Implied Consent Charges Filed and Charges Disposed, by County, by Original Charge. The North Carolina Court System Web site. <http://www.nccourts.org/Citizens/SRPlanning/Documents/ratfy20062007.pdf>. Accessed February 28, 2008.
10. SAMHSA frequent questions. Substance Abuse and Mental Health Services Administration Web site. <http://www.hhs.gov/samhsa/>. Accessed February 28, 2008.
11. Babor TF, Higgins-Biddle JC. *Brief intervention for hazardous and harmful drinking: A manual for use in primary care*. Geneva, Switzerland: World Health Organization; 2001. WHO publication WHO/MSD/MSB/01.6b.
12. NC Youth Risk Behavior Survey (YRBS). North Carolina Healthy Schools Web site. <http://www.nchealthyschools.org/data/yrbs/>. Accessed February 24, 2008.
13. Gabel JR, Whitmore H, Pickreign JD, et al. Substance abuse benefits: still limited after all these years. *Health Aff*. 2007;26(4):w474-482.
14. Joint Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse Services. *Budget Overview*. Raleigh, NC: North Carolina General Assembly; March 2006.
15. Karberg JC, James DJ. *Substance Dependence, Abuse, and Treatment of Jail Inmates, 2002*. Washington, DC: Bureau of Justice Statistics, Office of Justice Programs, US Dept of Justice; July 2005. NCJ 209588.
16. Elkind MS, Sciacca R, Boden-Albala B, et al. Moderate alcohol consumption reduces risk of ischemic stroke: the northern Manhattan study. *Stroke*. 2006;37(1):13-19.

17. Malarcher AM, Giles WH, Croft JB, et al. Alcohol intake, type of beverage, and the risk of cerebral infarction in young women. *Stroke*. 2001;32(1):77-83.
18. Sacco RL, Elkind M, Boden-Albala B, et al. The protective effect of moderate alcohol consumption on ischemic stroke. *JAMA*. 1999;281(1):53-60.
19. Kosten TR. Addiction as a brain disease. *Am J Psychiatry*. 1998;155(6):711-713.
20. McLellan AT, Lewis DC, O'Brien CP, Kleber HD. Drug dependence, a chronic medical illness: implications for treatment, insurance, and outcomes evaluation. *JAMA*. 2000;284(13):1689-1695.
21. Committee on Quality of Health Care in America Institute of Medicine of the National Academies. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academies Press; 2001.
22. Comprehensive Assessment Treatment Outcomes Registry (CATOR)/ New Standards, Inc. *Cost Effectiveness System to Measure Drug and Alcohol Treatment Outcomes*. Columbus, OH: Ohio Department of Alcohol and Drug Addiction Services; 1995.
23. Hughes A, Sathe N, Spagnola K. *State Estimates of Substance Use from the 2005-2006 National Surveys on Drug Use and Health*. Washington, DC: Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies; 2008.
24. North Carolina Department of Health and Human Services, Division of Mental Health, Developmental Disabilities, and Substance Abuse. *State Plan 2005: Blueprint for Change. North Carolina's Plan for Mental Health, Developmental Disabilities, and Substance Abuse*. Raleigh, NC: North Carolina Department of Health and Human Services; 2005.
25. N. Menon, personal communication, April 2008.
26. North Carolina Department of Health and Human Services, Division of Mental Health, Developmental Disabilities, and Substance Abuse. *Technical Review Report: Performance Partnership Grant Core Technical Review of the Division of State and Community Assistance, Center for Substance Abuse Treatment*. Raleigh, NC: North Carolina Department of Health and Human Services; 2006.
27. TASC in North Carolina. TASC in North Carolina Web site. <http://northcarolinatasc.org/TASCfactsheet07.pdf>. Revised September 2007. Accessed March 28, 2008.
28. Driving while impaired (DWI) substance abuse services report. G.S. 122C-142.1. North Carolina Department of Health and Human Services Web site. <http://www.ncdhs.gov/mhddsas/statspublications/reports/dwi-leg06-07rpt.pdf>. Published February 2008. Accessed March 28, 2008.
29. The National Center on Addiction and Substance Abuse at Columbia University. *CASAWORKS for Families a Promising Approach to Welfare Reform and Substance-Abusing Women*. New York, NY: National Center on Addiction and Substance Abuse at Columbia University; 2001.
30. Drug treatment court. North Carolina Court System Web site. <http://www.nccourts.org/Citizens/CPrograms/DTC/Default.asp>. Accessed March 28, 2008.
31. State of North Carolina Department of Correction, Division of Community Corrections. Annual legislative report on the criminal justice partnership act. [http://www.doc.state.nc.us/Legislative/2008/Criminal\\_Justice\\_Partnership\\_Act\\_Annual\\_Report.pdf](http://www.doc.state.nc.us/Legislative/2008/Criminal_Justice_Partnership_Act_Annual_Report.pdf). Published March 1, 2008. Accessed March 29, 2008.
32. State of North Carolina Department of Correction, Division of Community Corrections. *Coming Together. Annual Report of Program Services, FY 2005-2006*. Raleigh, NC: State of North Carolina Department of Correction; 2006.
33. State of North Carolina Department of Correction, Division of Alcoholism and Chemical Dependency Programs. *Annual Legislative Report FY 2006-2007*. Raleigh, NC: State of North Carolina Department of Correction; 2008.

34. Safe and Drug Free Schools. Public Schools of North Carolina Web site. <http://www.ncpublicschools.org/safeschools/>. Accessed April 22, 2008.
35. State Board of Education. Healthful Living: K-12 standard course of study and grade level competencies. Raleigh, NC: North Carolina Department of Public Instruction; 2006.
36. North Carolina alcohol facts. University of North Carolina Highway Safety Research Center Web site. <http://www.hsrb.unc.edu/index.cfm>. Accessed February 28, 2008.
37. Schneider Institute for Health Policy, Brandeis University. *Substance Abuse: The Nation's Number One Health Problem. Key Indicators for Policy*. Princeton, NJ: Robert Wood Johnson Foundation; 2001.
38. Moore DD, Forster JR. Student assistance programs: new approaches for reducing adolescent substance abuse. *J Couns Dev*. 1993;71(3):326-329.
39. Klitzner M, Fisher D, Stewart K, Gilbert S. *Early Intervention for Adolescents*. Princeton NJ: Robert Wood Johnson Foundation; 1992.
40. Bosworth K. *Protective Schools: Linking Drug Abuse Prevention with Student Success. A Guide for Educators, Policy Makers, and Families*. Tucson, AZ: Arizona Board of Regents; 2000.
41. Hawkins JD, Catalano RF, Miller JY. Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: implications for substance abuse prevention. *Psychol Bull*. 1992;112(1):64-105.
42. Adelman HS, Taylor L. Involving teachers in collaborative efforts to better address barriers to student learning. *Prev Sch Failure*. 1998;42:55-60.
43. Stein F. Access to the full continuum of substance abuse services for children and adolescents in North Carolina. Presentation to the NC IOM Task Force on Substance Abuse Services; February 15, 2007; Cary, NC.
44. National Institute on Alcohol Abuse and Alcoholism. *What Colleges Need to Know Now: An Update on College Drinking Research*. Washington, DC: US Dept of Health and Human Services, National Institutes of Health; 2007. NIH publication 07-5010.
45. NC Youth Risk Behavior Survey (YRBS). North Carolina Healthy Schools Web site. <http://www.nchealthyschools.org/data/yrbs/>. Accessed February 24, 2008.
46. National Institute on Drug Abuse. *Preventing Drug Use among Children and Adolescents*. 2nd ed. Washington, DC: US Dept of Health and Human Services, National Institutes of Health; 2003. NIH publication 04-4212(A).
47. Petersen J. Evidence-based prevention strategies. Presentation to the NC IOM Task Force on Substance Abuse Services; December 10, 2007; Cary, NC.
48. Types of prevention strategies. CSAP's Centers for the Application of Prevention Technologies Web site. <http://captus.samhsa.gov/Western/resources/bp/step5/bptype.cfm>. Updated August 17, 2006. Accessed May 15, 2008.
49. Glanz K, Rimer B, Lewis FM, eds. *Health Behavior and Health Education: Theory, Research, and Practice*. San Francisco, CA: Jossey-Bass; 2002.
50. McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. *Health Educ Q*. 1988;15(4):351-377.
51. NC standard course of study: Healthful Living. NC Department of Public Education Web site. <http://www.ncpublicschools.org/curriculum/healthfulliving/>. Accessed May 15, 2008.
52. Safe and Drug Free Schools. Public Schools of North Carolina Web site. <http://www.ncpublicschools.org/safeschools/>. Accessed April 22, 2008.
53. Pankratz MM, Hallfors DD. Implementing evidence-based substance abuse prevention curricula in North Carolina public school districts. *J Sch Health*. 2004;74(9):353-358.

54. Schutte K, Maike MM, Johnson MM. *Washington State Student Assistance Prevention-Intervention Services Program. Program Manual*. Olympia, WA: Washington Office of Superintendent of Public Instruction; 2006.
55. Hingson R, Heeren T, Winter M, Wechsler H. Magnitude of alcohol-related mortality and morbidity among US college students ages 18-24: changes from 1998 to 2001. *Annu Rev Public Health*. 2005;26:259-279.
56. Knight JR, Wechsler H, Kuo M, et al. Alcohol abuse and dependence among US college students. *J Stud Alcohol*. 2002;63(3):263-270.
57. Perry CL. Preadolescent and adolescent influences on health. In Smedley BD, Syme SL, eds. *Promoting Health: Intervention Strategies From Social and Behavioral Research*. Washington, DC: National Academies Press; 2000.
58. Johnston LD, O'Malley PM, Bachman JG. *National Trends in Drug Use and Related Factors Among American High School Students and Young Adults, 1975-1986*. Rockville, MD: National Institute on Drug Abuse, US Dept of Health and Human Services; 1987.
59. National Institute on Drug Abuse. *NIDA InfoFacts: Cigarettes and Other Tobacco Products*. Rockville, MD: National Institute on Drug Abuse, US Dept of Health and Human Services; 2006
60. Tobacco: state synar non-compliance rate table. Substance Abuse and Mental Health Services Administration Web site. [http://prevention.samhsa.gov/tobacco/synartable\\_print.htm](http://prevention.samhsa.gov/tobacco/synartable_print.htm). Accessed May 15, 2008.
61. Underage smoking. NC Department of Crime Control and Public Safety Web site. <http://www.nccrimecontrol.org/index2.cfm?a=000003,000005,000996>. Updated October 28, 2005. Accessed May 15, 2008.
62. ALE agents cite 1,125 store clerks during 2007 compliance checks [press release]. Raleigh, NC: North Carolina Department of Crime Control and Safety; January 10, 2008. <http://www.nccrimecontrol.org/NewsReleases/2008/ale/ALETobacco2007Year.htm>. Accessed February 10, 2008.
63. Task Force on Community Preventive Services. Increasing the unit price for tobacco products is effective in reducing initiation of tobacco use and in increasing cessation. <http://www.thecommunityguide.org/tobacco/tobac-int-unit-price.pdf>. Updated January 3, 2003. Accessed February 10, 2008.
64. Tauras JA, O'Malley PM, Johnston LD. Effects of price and access laws on teenage smoking initiation: a national longitudinal analysis. [http://www.impactteen.org/generalarea\\_PDFs/AccessLaws.pdf](http://www.impactteen.org/generalarea_PDFs/AccessLaws.pdf). Published April 2001. Accessed March 13, 2008.
65. Raising cigarette taxes reduces smoking, especially among kids (and the cigarette companies know it). Campaign for Tobacco Free Kids Web site. <http://www.tobaccofreekids.org/research/factsheets/pdf/0146.pdf>. Published June 11, 2007. Accessed March 13, 2008.
66. Benefits from a 75-cent cigarette tax increase in North Carolina. Washington, DC: Campaign for Tobacco-Free Kids; 2008.
67. Newman IM, Ward JM. The influence of parental attitude and behavior on early adolescent cigarette smoking. *J Sch Health*. 1989;59(4):150-152.
68. Distefan JM, Gilpin EA, Choi WS, Pierce JP. Parental influences predict adolescent smoking in the United States, 1989-1993. *J Adolesc Health*. 1998;22(6):466-474.
69. Smoke-free laws: protecting our right to breathe clean air. Campaign for Tobacco-Free Kids Web site. <http://www.tobaccofreekids.org/reports/shs/>. Updated April 9, 2008. Accessed May 15, 2008.

70. Task Force on Community Preventive Services. Effectiveness of smoking bans and restrictions to reduce exposure to environmental tobacco smoke (ETS). <http://www.thecommunityguide.org/tobacco/tobac-int-smoke-bans.pdf>. Updated January 3, 2003. Accessed February 10, 2008.
71. US Department of Health and Human Services. *The Surgeon General's Call to Action to Prevent and Reduce Underage Drinking*. Rockville, MD: US Dept of Health and Human Services, Office of the Surgeon General; 2007.
72. Sheffield FD, Darkes J, Del Boca FK, Goldman MS. Binge drinking and alcohol-related problems among community college students: implications for prevention policy. *J Am Coll Health*. 2005;54(3):137-141.
73. 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.
74. Mooring PA. Prevention of substance abuse. Presentation to the NC IOM Task Force on Substance Abuse; November 16, 2007; Cary, NC.
75. Hollingworth W, Ebel BE, McCarty CA, et al. Prevention of deaths from harmful drinking in the United States: the potential effects of tax increases and advertising bans on young drinkers. *J Stud Alcohol*. 2006;67(2):300-308.
76. Grant BF, Dawson DA. Age at onset of alcohol use and its association with DSM-IV alcohol abuse and dependence: results from the national longitudinal alcohol epidemiologic survey. *J Subst Abuse*. 1997;9:103-110.
77. Substance Abuse and Mental Health Services Administration. *National Survey on Drug Use and Health: Alcohol Dependence or Abuse and Age at First Use*. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2004.
78. Results from the 2003 National Survey on Drug Use and Health: national findings. Substance Abuse and Mental Health Services Administration Web site. <http://www.oas.samhsa.gov/nhsda/2k3nsduh/2k3Results.htm#ch5>. Updated February 22, 2006. Accessed April 9, 2008.
79. Underage drinking: a major public health problem. National Institute of Alcohol Abuse and Alcoholism Web site. <http://pubs.niaaa.nih.gov/publications/aa59.htm>. Published April 2003. Accessed February 23, 2008.
80. Goodwin AH. A social norms approach to reduce drinking-driving among university students. The International Council on Alcohol, Drugs, and Traffic Safety Web site. <http://www.icadts.org/T2004/pdfs/O42.pdf>. Accessed February 23, 2008.
81. Chaloupka FJ. The effects of price on alcohol use, abuse, and their consequences. In: Bonnie RJ, O'Connell ME, eds. *Reducing Underage Drinking: A Collective Responsibility*. Washington, DC: National Academies Press; 2004.
82. Grossman M, Markowitz S. Alcohol regulation and violence on college campuses. In: Grossman M, Hsich C, eds. *Economic Analysis of Substance Use and Abuse: The Experience of Developed Countries and Lessons for Developing Countries*. Cheltenham, UK: 2001.
83. Center for Science in the Public Interest, Alcohol Policies Project. "Thank you for drinking:" dirty little secrets big beer will never tell you on their lobby days. <http://www.cspinet.org/booze/2006/dirtydrinking.pdf>. Accessed April 9, 2008.
84. State beer excise tax rates. Federation for Tax Administrators Web site. <http://www.taxadmin.org/fta/rate/beer.html>. Updated January 1, 2008. Accessed April 10, 2008.
85. State wine excise tax rates. Federation for Tax Administrators Web site. <http://www.taxadmin.org/fta/rate/wine.html>. Updated January 1, 2008. Accessed April 10, 2008.

86. State sales, gasoline, cigarette, and alcohol tax rates by state, 2000-2008. The Tax Foundation Web site. <http://www.taxfoundation.org/taxdata/show/245.html>. Accessed April 10, 2008.
87. Grossman M, Chaloupka FJ, Sirlitan I. An empirical analysis of alcohol addiction: results from the monitoring the future panels. *Econ Inq.* 1998;36(1):390-48.
88. Laixuthai A, Chaloupka FJ. Youth alcohol use and public policy. *Contemp Policy Issues.* 1993;11(4):70.
89. Chaloupka FJ, Grossman M, Saffer H. The effects of price on alcohol consumption and alcohol-related problems. *Alcohol Res Health.* 2002;26(1):22-34.
90. Why are young drivers at greater risk? UNC Highway Safety Research Center Web site. [http://www.hsrrc.unc.edu/safety\\_info/young\\_drivers/why\\_greater\\_risk.cfm](http://www.hsrrc.unc.edu/safety_info/young_drivers/why_greater_risk.cfm). Accessed February 24, 2008.
91. Task Force on Community Preventive Services. Effectiveness of mass media campaigns in preventing alcohol-impaired driving. [http://www.thecommunityguide.org/mvoi/glance\\_massmediaAJPM.pdf](http://www.thecommunityguide.org/mvoi/glance_massmediaAJPM.pdf). Updated July 26, 2004. Accessed February 24, 2008.
92. Riley EP, McGee CL. Fetal alcohol spectrum disorders: an overview with emphasis on changes in brain and behavior. *Exp Biol Med.* 2005;230(6):357-365.
93. May PA, Gossage JP. Estimating the prevalence of fetal alcohol syndrome: a summary. National Institute of Alcohol Abuse and Alcoholism Web site. <http://pubs.niaaa.nih.gov/publications/arh25-3/159-167.htm>. Accessed February 24, 2008.
94. Substance Abuse and Mental Health Services Administration. Effects of alcohol on a fetus. [http://www.fasdcenter.samhsa.gov/documents/WYNK\\_Effects\\_Fetus.pdf](http://www.fasdcenter.samhsa.gov/documents/WYNK_Effects_Fetus.pdf). DHHS publication (SMA) 07-4275. Published 2007. Accessed February 24, 2008.
95. Burd L, Cotsonas-Hassler TM, Martsolf JT, Kerbeshian J. Recognition and management of fetal alcohol syndrome. *Neurotoxicol Teratol.* 2003;25(6):681-688.
96. Lupton C, Burd L, Harwood R. Cost of fetal alcohol spectrum disorders. *Am J Med Genet C Semin Med Genet.* 2004;127(1):42-50.
97. Klug MG, Burd L. Fetal alcohol syndrome prevention: annual and cumulative cost savings. *Neurotoxicol Teratol.* 2003;25(6):763-765.
98. Hankin JR. Fetal alcohol syndrome prevention research. *Alcohol Res Health.* 2002;26(1):58-65.
99. Floyd RL, Sobell M, Velasquez MM, et al. Preventing alcohol-exposed pregnancies: a randomized controlled trial. *Am J Prev Med.* 2007;32(1):2-10.
100. NC State Center for Health Statistics. NC PRAMS (Pregnancy Risk Assessment Monitoring System) data, 2005. <http://www.schs.state.nc.us/SCHS/prams/2005/#1>. Updated October 23, 2007. Accessed February 23, 2008.
101. US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Prevention. Fetal alcohol spectrum disorders: curriculum for addiction professionals, level 2. <http://download.ncadi.samhsa.gov/Prevline/pdfs/SMA07-4297.pdf>. Published 2007. Accessed March 26, 2008.
102. US Public Health Service. Treating tobacco use and dependence—a systems approach. A guide for health care administrators, insurers, managed care organizations, and purchasers. <http://www.surgeongeneral.gov/tobacco/systems.htm>. Published November 2000. Accessed March 13, 2008.
103. Whitlock EP, Orleans CT, Pender N, Allan J. Evaluating primary care behavioral counseling interventions: an evidence-based approach. *Am J Prev Med.* 2002;22(4):267-284.

104. What is SBIRT? Screening, Brief Intervention, and Referral to Treatment. Substance Abuse and Mental Health Services Administration Web site. <http://sbirt.samhsa.gov/index.htm>. Accessed March 27, 2008.
105. Babor TF, McRee BG, Kassebaum PA, et al. Screening, Brief Intervention, and Referral to Treatment (SBIRT): toward a public health approach to the management of substance abuse. *Subst Abus.* 2007;28(3):7-30.
106. State cooperative agreements: SAMHSA's SBIRT cooperative agreements. Substance Abuse and Mental Health Services Administration Web site. <http://sbirt.samhsa.gov/grantees/state.htm>. Accessed March 27, 2006.
107. Desy PM, Perhats C. Alcohol screening, brief intervention, and referral in the emergency department: an implementation study. *J Emerg Nurs.* 2008;34(1):11-19.
108. North Carolina state health plan. Benefits booklet for your NC SmartChoice Basic Blue Options PPO plan. North Carolina State Health Plan Web site. [http://statehealthplan.state.nc.us/pdf/PPO\\_Basic\\_Benefits\\_Book.pdf](http://statehealthplan.state.nc.us/pdf/PPO_Basic_Benefits_Book.pdf). Accessed March 27, 2008.
109. American Academy of Pediatrics. Recommendations for preventive pediatric health care (periodicity schedule), 2007. <http://practice.aap.org/content.aspx?aid=1599>. Accessed March 27, 2008.
110. Physician office visit data. CDC, National Center for Health Statistics Web site. <http://www.cdc.gov/nchs/about/major/ahcd/officevisitcharts.htm> Updated January 11, 2008. Accessed March 27, 2008.
111. NC Youth Risk Behavior Survey (YRBS). North Carolina Healthy Schools Web site. <http://www.nchealthyschools.org/data/yrbs/>. Accessed February 24, 2008.
112. Blount A. Integrated primary care: organizing the evidence. *Fam Syst Health.* 2003;21:121-134.
113. Druss B, Rohrbaugh R. Integrated medical care for patients with serious psychiatric illness: a randomized trial. *Arch Gen Psychiatry.* 2001;58(9):861-868.
114. Weisner C, Mertens J, Parthasarathy S, Moore C, Lu Y. Integrating primary medical care with addiction treatment: a randomized controlled trial. *JAMA.* 286(14):1715-1723.
115. Frone MR. Prevalence and distribution of alcohol use and impairment in the workplace: A US national survey. *J Stud Alcohol.* 2006;67(1):147-156.
116. National Institute on Drug Abuse. *Principles of Drug Addiction Treatment: A Research Based Guide.* Bethesda, MD: National Institute on Drug Abuse; 1999. NIH publication 00-4180.
117. NCGS § 58-51-50; 58-65-75; 58-67-70.
118. 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.
119. Rapp RC, Xu J, Carr CA, et al. Treatment barriers identified by substance abusers assessed at a centralized intake unit. *J Subst Abuse Treat.* 2006;30(3):227-235.
120. Stanton MD. Getting reluctant substance abusers to engage in treatment/self-help: a review of outcomes and clinical options. *J Marital Fam Ther.* 2004;30(2):165-182.
121. Appel PW, Ellison AA, Jansky HK, Oldak R. Barriers to enrollment in drug abuse treatment and suggestions for reducing them: opinions of drug injecting street outreach clients and other system stakeholders. *Am J Drug Alcohol Abuse.* 2004;30(1):129-153.
122. Tsogia D, Copello A, Orford J. Entering treatment for substance misuse: a review of the literature. *J Ment Health.* 2001;10(5):481-499.

123. McLellan T. Re-considering addiction treatment: have we been thinking correctly? Presentation to the North Carolina Joint Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse; October 31, 2007; Raleigh, NC.
124. Wiford S. Retrospective summary of consumer/citizen opinions about addiction issues in North Carolina. Presentation to the NC IOM Task Force on Substance Abuse Services; December 10, 2007; Cary, NC.
125. North Carolina Department of Health and Human Services, Division of Mental Health, Developmental Disabilities and Substance Abuse Services. Extended SFY 2004-2007 performance contract with local management entities, second quarter report. October 1, 2007-December 31, 2007. North Carolina Department of Health and Human Services Web site. <http://www.ncdhhs.gov/mhddsas/performanceagreement/sfy08performancecontractreport-q2-11-08.pdf>. Published February 2008. Accessed April 10, 2008.
126. Quality Management Team, Community Policy Management Section, North Carolina Division of Mental Health, Developmental Disabilities and Substance Abuse Services, North Carolina Department of Health and Human Services. MHDDSAS community systems progress indicators: report for the second quarter SFY 2007-2008. North Carolina Department of Health and Human Services Web site. <http://www.dhhs.state.nc.us/MHDDSAS/announce/commbulletins/commbulletin88/csprogressindicatorsrpt-q2Sfy08final.pdf>. Published February 29, 2008. Accessed April 10, 2008.
127. Quality Management Team, Community Policy Management Section, North Carolina Division of Mental Health, Developmental Disabilities and Substance Abuse Services, North Carolina Department of Health and Human Services. *Summary of SFY07 Services Provided to Persons with Substance Abuse Disorders*. Raleigh, NC: North Carolina Department of Health and Human Services; 2008.
128. Garnick DW, Lee MT, Horgan CC, Acevedo A. Adapting Washington circle performance measures for public sector substance abuse treatment systems. Unpublished manuscript. 2007.
129. Shen Y. Selection incentives in a performance-based contracting system. *Health Serv Res*. 2003;38(2):535-552.







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