

**NC INSTITUTE OF MEDICINE
TASK FORCE ON SUBSTANCE ABUSE SERVICES
October 15, 2007
10:00-3:00
NC Hospital Association**

Minutes

Attendance: Patrice Alexander, Robert Bilbro, Dewayne Book, Barbara Boyce, Sherry Bradsher, Carl Britton-Watkins, Anthony Burnett, Dave Carnahan, Jay Chadhuri, Larry Colie, Chris Collins, April Conner, Grayce Crockett, Debra DeBruhl, Leah Devlin, Anne Doolen, Beverly Earle, Tony Foriest, David Friedman, Kathleen Gibson, Phillip Graham, Robert Guy, Robert Gwyther, Kenneth Hammond, Paula Harrington, Kathy Heilig, Verla Insko, Larry Johnson, Jeanette Jordan-Huffman, Joan Kaye, Kevin McDonald, Philip Mooring, Paul Nagy, Martin Nesbitt, Will Neumann, Karen Parker Thompson, Marguerite Peebles, William Purcell, James Ragan,, Jane Schairer, DeDe Severino, Gregg Stahl, Steve Sumerel, Anne Thomas, David Turpin, Leza Wainwright, Michael Watson, Wendy Webster, Bert Bennett, Spencer Clark, Sara McEwan, Janice Petersen, Belinda Pettiford, Martin Pharr, Starleen Scott Robbins, Flo Stein, Cynthia Wiford, Kimberly Alexander-Bratcher, Kristen Dubay, Thalia Fuller, Mark Holmes, Kiernan McGorty, Daniel Shive

WELCOME AND INTRODUCTIONS

Representative Verla Insko
NC House of Representatives

I would like to thank you all for making this commitment to the Task Force. This is the year to focus on addictions. Solving substance abuse problems is also a topic for the Milbank Foundation. The next meeting of Legislative Oversight Committee on Mental Health will focus on best practices at the national level.

Senator Martin L. Nesbitt, Jr., JD
NC Senate

A problem the Legislative Oversight Committee on Mental Health keeps facing is addiction. North Carolina is doing pretty well compared to other states. It is not that we are doing well but that everyone is doing poorly. We know we are not meeting needs, but appropriated funds are not being spent. We are looking to this Task Force and the NC IOM to come up with some solutions by consensus to help guide the General Assembly.

Dewayne Book, MD
Medical Director
Fellowship Hall

I am a board-certified psychiatrist that has been in the field of addiction as a provider for 20 years. If any group can improve substance abuse services in North Carolina, it is this group.

LEGISLATIVE CHARGE AND NC IOM PROCESS

Pam Silberman, JD, DrPH
President & CEO
NC Institute of Medicine

The NC Institute of Medicine (NC IOM) is a quasi-state agency chartered in 1983 by the NC General Assembly to: be concerned with the health of the people of North Carolina; monitor and study health

matters; respond authoritatively when found advisable; and respond to requests from outside sources for analysis and advice when this will aid in forming a basis for health policy decisions (NCGS §90-470). The NC IOM studies issues at the request of the NC General Assembly, state agencies, health professional organizations, and the NC IOM Board. The NC IOM often works in partnership with other organizations to study health issues.

The NC IOM membership includes representatives from government; the health professions; business and industry; the hospital, nursing facility, and insurance industries; the voluntary sector; faith communities; and the public at large. Members are appointed by the Governor for 5-year terms. The NC IOM is governed by a 27 member board.

The NC IOM typically creates broad-based Task Forces to study health issues facing the state. Task Forces generally consist of between 30-60 people and are guided by Co-Chairs who run the meetings. Task Force members typically include representatives of state and local policy makers and agency officials, health professionals, insurers, business and community leaders, consumers and other interested individuals.

Task Forces generally run from 9-18 months. Approximately the first two-thirds of meetings are for fact-finding to identify the problem and identify potential solutions. The last third of meetings are to discuss and refine recommendations and review draft copies of the report. All Task Force meetings are open to the public.

The work of a Task Force is guided by a smaller Steering Committee, consisting of people with expertise or knowledge of the issue. The Steering Committee helps shape the agenda and identify potential speakers. Presentations to the Task Force may include research summaries and/or statistics, descriptions of programs, challenges or barriers to best practices, and national developments. Presenters may be Task Force members, researchers, national or state leaders, state health care professionals, consumers, or NC IOM staff.

The NC IOM staff will prepare agendas, invite speakers, gather information, and identify evidence-based studies (when available) to inform the work of the Task Force. The staff write the first draft of the report. Task Force and Steering Committee members are encouraged to comment on written materials and recommendations throughout the process. The Task Force report is circulated several times before being finalized. Task Force members may be asked to prioritize recommendations. Task Force members will take final vote on the recommendations and report. NC IOM Board members review the report before it is finalized. Reports are distributed widely to a variety of stakeholders and interested persons.

Recent NC IOM studies have been on the following topics: Chronic Kidney Disease (report expected Spring 2008), Health Literacy (2007), Ethical Issues in Pandemic Influenza Planning (2007), Trends in Primary Care and Specialty Supply (2007), Covering the Uninsured (2006), and the Healthcare Safety Net (2005).

The NC IOM also publishes the *NC Medical Journal*. Each issue contains a special focus area with articles and commentaries discussing specific health issues. Typically, one of the issues of the *NC Medical Journal* will focus on the work of a Task Force. An issue brief will describe the work and recommendation of a Task Force. The *NC Medical Journal* is circulated to more than 30,000 people across the state.

The NC General Assembly asked the NC IOM to convene a task force to study substance abuse services in North Carolina (Sec. 10.53A(b)-(d) of Session Law 2007-323). The NC IOM Task Force on Substance Abuse Services is charged with:

- identifying the continuum of services needed for treatment of substance abuse services, including but not limited to prevention, outpatient services, residential treatment, and recovery supports
- looking at the services available through public and private systems, but focusing on the availability of services through the Division of Mental Health, Developmental Disabilities and Substance Abuse Services

- identifying evidence-based models of care or promising practices in coordination with the NC Practice Improvement Collaborative for the prevention and treatment of substance abuse and developing recommendations to incorporate these models into the current substance abuse service system of care
- examining different financing options to pay for substance abuse services at the local, regional, and state levels
- considering different reimbursement methodology, including but not limited to fee-for-service, grant funding, case rates, and capitation
- examining the adequacy of the current and future substance abuse workforce, including but not limited to credentialed substance abuse counselors, availability of substance abuse workers throughout the State, and reimbursement levels
- developing a workforce education plan, if needed
- 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
- examining strategies for providing substance abuse services to people identified through State hospitals and the judicial and social services systems
- examining barriers that people with substance abuse problems have in accessing publicly funded substance abuse services and explore possible strategies for improving access
- examining current outcome measures and identifying other appropriate outcome measures to assess the effectiveness of substance abuse services, if necessary

The NC IOM Task Force on Substance Abuse Services is charged with 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 Task Force shall identify any policy changes needed to implement the plan and develop cost estimates associated with different recommendations. The Task Force shall also examine existing public and private financing options and explore how existing funding could be used more effectively to pay for recommended services.

The NC IOM Task Force on Substance Abuse Services is required to submit its interim report and recommendations to the 2008 General Assembly. The final report must be submitted no later than the convening of the 2009 General Assembly. The NC IOM typically reviews the progress on Task Force recommendations approximately 18-24 months after the release of a report.

THE BIOLOGY OF ADDICTION AND PUBLIC POLICY

David P. Friedman, PhD

Director

Addiction Studies Program

Wake Forest University School of Medicine

There is a long-held view that drug addiction is a disease of moral fiber. It is really important that this Task Force strives to turn this view around. Like other chronic diseases, drug abuse is brought on by voluntary causes. Policy makers want simple answers, but scientists only have complex analyses. Scientists want more research into the biological basis of drug addiction, but policymakers cannot wait until we completely understand the issue. It is important to consider how we think about addiction: if we think drug addiction is a moral failing, it is okay to put addicts in jail, but if we think drug addiction is a brain disorder, we feel obligated to treat addicts.

Drug abuse costs the United States \$109.9 billion. Alcohol costs the United States \$166.5 billion a year, and 110,000 alcoholics die a year. Smoking costs the United States \$138 billion a year, mostly due to sickness. Smoking is a gateway drug for kids and our efforts at prevention are pitiful.

Drug addiction is a brain disorder. The brain itself is changed by long-term drug abuse. Addiction is a chronic condition that needs ongoing treatment and care. Unlike other forms of chronic disease management, drug treatment throws people out of treatment if they fail. Genetic factors are important in drug abuse: you may choose to use a drug but you cannot choose how you will respond to it. Environmental factors are also important. Physical and mental abuse is a big predictor of substance abuse. Our popular culture is filled with advertisements for legal drugs and media depictions of illegal drug use. The message that drugs can fix things is infused in our society.

Data from the Substance Abuse and Mental Health Services Administration (SAMHSA) data shows North Carolina has one of the highest rates of past month use of pain relievers. North Carolina is doing pretty well in terms of the number of people needing treatment but not receiving it. However, North Carolina is one of the worst states for needing treatment and receiving it. There is a low level of treatment in North Carolina.

Addiction is a disease that begins in childhood and adolescence. Earlier onset of drinking increases risks of addiction (ALCOHOL data). Individuals who first use alcohol at age 14 or younger are 16 times more likely to be dependent or abusing in the past year, whereas individuals who first use alcohol at 21 or older are only two times as likely to be dependent or abusing in the past year.

The group with the greatest past month drug use is teenagers and young adults. There is a spike between 15-18 years of age of presenting for treatment for use of marijuana. Unfortunately, there are usually not enough treatment slots for kids and women.

When kids use drugs as adolescence their brain responds differently then when they use it as adults. Rats that receive nicotine as adults respond just like any adult rat, but those that were exposed in adolescence want more nicotine. The nicotine receptors in the brain are different for rats exposed to nicotine as adolescents as compared to those exposed to nicotine as adults.

Adolescence is the key to preventing addiction. The percent of students reporting past month drug use has decreased. Adolescent drug use is inversely related to kids' beliefs that drugs are dangerous. Kids' belief that drugs are dangerous is directly related to the amount of effort we put into prevention. To keep kids off drugs, we need to focus our dollars on kids and focus on programs that are efficacious. Parents are the most important influence on their kids.

There are similarities between drug use (i.e., social use) and drug abuse (i.e., using too much, too frequently; using illegal drugs). Both involve voluntary behaviors and do not necessarily have adverse consequences. The difference is that all drug addicts pass through a period of drug abuse.

An addict's brain is different from a normal brain, and the differences are enduring. Drug addiction is a brain disorder that causes loss of control of drug-taking behavior. Drug addicts have an overwhelming compulsion to take drugs and cravings when drugs are not available. Addicts are tolerant (i.e., they need more for the same effect), physically dependent (i.e., they experience a biological response), and psychologically dependent (i.e., they cannot imagine life without the drug). Addiction is a chronic, relapsing disorder. Relapse is a characteristic of the disease, not a failure of treatment. Relapse can occur long after drugs are gone from the body because drugs change the brain.

Many common diseases are chronic and involve relapsing disorders (e.g., hypertension, adult onset diabetes, atherosclerosis). They all begin with voluntary behaviors, have genetic and environmental components, and result in biological changes in the body. Medication can be useful for treatment of these chronic conditions, but they also require lifestyle changes. We find patients with these chronic conditions struggle to change their lifestyles just as addicts do. We do not cure these chronic conditions but rather we treat and manage them. We need to use the models of treatment for these disorders to treat addicts.

Drug addiction is learned. It involves explicit memory (i.e., consciously recalled memories) and implicit memory (i.e., operant and classical conditioning). Operant conditioning is based on the finding that any behavior that is reinforced or rewarded tends to be repeated. A specific neural circuit underlies the reward, and the release of dopamine is an essential step. Activation of the reward system teaches one to repeat the behavior that activated it. All drugs of abuse except hallucinogens release dopamine, which is a reward chemical, into the nucleus accumbens. The reward pathway helps us get the things we need to survive. We learn to repeat behaviors that produce reward.

Pleasurable events increase the release of dopamine. Food increases the release of dopamine by 50%, whereas methamphetamines increase the release of dopamine 10 fold. Cocaine causes enduring changes in the density of dopamine receptors. Three days after monkeys do cocaine they hardly have any dopamine receptors. At 227 days after cocaine use, monkeys' dopamine receptors have barely recovered. Drugs hijack the fundamental survival system in the brain. Addicts' brains are telling them they need drugs to survive. The more they use, the more they are teaching themselves they need drugs to survive. There is evidence that after a few years without drugs humans' receptors can go back to normal. Because it is so hard to break the pathway for reward and repair receptors, it is equally important to prevent drug use as it is to stop continued drug use.

Classical conditioning is based on an association between two stimuli. Behavior is learned through repetition. It becomes very difficult to extinguish the behavior because of extensive over-learning and unconscious learning. All addicts have triggers; if we take people out of their community for treatment and then send them back when they are done, they may relapse immediately because of triggers. Programs need to lessen the impact of triggers.

Patients on pain relievers experience the same acute effects and neuroadaptations (i.e., tolerance and physical dependence) as addicts, but most do not become addicted because their behavioral contingencies are different (i.e., they use drugs to have normal lives and addicts use drugs to get away from their normal lives). Psychological dependence occurs when drug-taking becomes central to one's life, replacing other activities, and when a person considers drug-taking to be necessary for his or her continued well being.

Genetic factors account for 50-80% of the risk for addiction. The risk for addiction involves many factors. A study of female twins found women's risk for smoking is 78% genetic and 22% environmental. Several aspects of addiction might be genetically modified: response to drug, risk of persistent use, becoming dependent, usage per day, and ability to quit.

Aldehyde dehydrogenase (ALDH2) is an enzyme involved in alcohol metabolism. Variants of ALDH2 affect sensitivity to alcohol. Variant 1 is very active and is found in most ethnic populations. Variant 2 is inactive or has low activity and is common in some Asian populations. It is responsible for the "alcohol flushing response" and increased hangover symptoms. It is protective against or reduces the occurrence of alcoholism.

It is a complex path to addiction. People have to do a bunch of things to get addicted, but this also gives us a bunch of places to intervene. The neuroscience of addiction has many policy implications. Policies need to keep in mind that addiction is a brain disorder that causes enduring changes in the brain, there is a common substrate for all addictions, and an immature or damaged orbitofrontal cortex leads to poor decision making (e.g., delayed gratification). It is important to remember new medications come from research. There needs to be a paradigm shift about the nature of addiction and it needs to be expressed through teaching and textbooks. We need to do more to identify risk factors for addiction and to address them. In particular, we need to prevent adolescent onset of addiction. Our understanding of operant conditioning tells us to prevent regular drug use.

There are several FDA Level Evidence Therapies that have been proven to work: cognitive behavioral therapy, motivational enhancement therapy, community reinforcement and family training, behavioral

couples therapy, multi systemic family therapy, 12-step facilitation, and individual drug counseling. There are also FDA Level Evidence Medications. For alcohol, there is disulfiram, naltrexone, and acamprosate. For opiates, there is naltrexone, methadone, buprenorphine. For cocaine, there is disulpheram and topiramate. For marijuana, there is rimonaban. Even though all these therapies and medications have been proven effective, the common perception is that treatment does not work. This may be due to celebrities in the news and/or because our expectations of treatment are unrealistic. The public expects treatment to involve safe and complete detoxification and result in an elimination of crime, reduced use of medical services, return to employment, and elimination of family disruption.

Instead of comparing treatment outcomes to unrealistic expectations, we need to compare treatment outcomes to no treatment. One study found 13% of patients who received treatment were HIV positive at the beginning of treatment and 21% were HIV positive 6 years later. Even though the number of patients with HIV increased, the treatment was effective when compared to the no treatment group, which went from 21% to 51% positive in the same time period. We can also compare treatment outcomes to prison outcomes. A study on the criminal recidivism of addicts who went to prison instead of treatment found 68% were re-arrested, 47% were convicted, and 50% were re-incarcerated within three years. Nearly all (95%) addicts that went to prison relapsed to drug abuse in three years. A Delaware Correctional System 3-year post work release study had successful outcomes if you look at outcomes in terms of how long people stayed in the program. Compared to intensive supervision only, treatment with naltrexone enhances success in probation.

Drug courts have been successful in reducing recidivism and drug use. Approximately 60% of participants complete 12 months of treatment, which is impressive since it takes three months for treatment to have any effect. Drug courts have about a 50% graduation rate. The problem is drug courts only serve about 5% of the eligible population. The NC General Assembly has increased funding to drug courts in an effort to reach more of the eligible population.

The success of drug treatment programs all depends on how you look at them. When we evaluate treatment programs for hypertension, we look at pre, during, and post treatment testing. When we evaluate addiction treatment, we tend to only look at pre and post treatment effects. We ask that the treatment still be effective even when the patient is not still in treatment. We have learned from other chronic illnesses that most patients do not respond to the first round of medications or treatments, most patients do not adhere to treatment or behavioral changes, treatment effects do not last long after treatment stops, and repeating acute care episodes is not a treatment plan. Acute care episodes should be viewed as a failure of treatment; yet, a lot of states pay for detoxification and not for real treatment.

We need a comprehensive care model that goes from detoxification to inpatient or outpatient rehabilitation to continuing care recovery management. Performance-based criteria should govern progression to the next step, and treatment difficulties should trigger enhanced treatment efforts.

The Addiction Studies Program at Wake Forest University runs this program for journalists and for states' executive, judicial, and legislative branches. The program is being run in North Carolina in May.

Comments:

In terms of genetic and environmental factors, nurturing has the most impact before a child is 16 and has a driver's license. The right family environment can still protect children with genetic predispositions for addiction. We do not know what the right family environment is, but we know what the wrong one is (e.g., abuse).

Dopamine is released in other types of addictions (e.g., food, sex, gambling), but the amount is probably greater for drugs, especially methamphetamines and cocaine. We cannot test rats for all types of addictions.

Scientists have developed a list of risk factors for addiction at the population level. If an individual has this cluster of factors, he or she is at increased risk. The problem is we do not always do the best job in educating medical students about these risk factors. ECU and UNC do a good job. Behavioral health is not done particularly well in most health professional schools.

There are evidence-based strategies for other drugs besides tobacco. The Department of Education and SAMHSA have lists of strategies that have been measured by the FDA. We currently have public announcements on television and radio and programs we do in schools. These efforts are not sufficient. A lot of time has been spent on translating research to practice (e.g., the National List of Effective Strategies and Policies). Most programs were created in very controlled settings, and it is difficult to implement them in uncontrolled communities.

The challenge of addiction from the employer's point of view is recidivism and relapse. Most employers are very reluctant to bring addicts back into the workplace. There are some protections under the Americans with Disabilities Act. We need to work on supportive employers. Some large employers realize it is more fruitful to get employees into continuing care programs, like we do for other chronic conditions.

THE DISEASE AND THE POPULATION

Phillip W. Graham, DrPH, MPH

Crime, Violence, and Justice Research Program
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One of the problems we have in North Carolina regarding substance abuse is data. Without knowing where, when, and why substance abuse occurs, prevention experts are disarmed. One has to use multiple data sources to know what is going on in the state; no one database has all the essential information. In terms of substance abuse consumption, data are available from the National Survey on Drug Use and Health (NSDUH), Behavioral Risk Factors Surveillance System (BRFSS), and Youth Risk Behavior Survey (YRBS). In terms of substance abuse consequences, data are available from the Highway Safety Research Center (HSRC), NC Department of Public Instruction (DPI), NC Department of Health and Human Services (NC DHHS), and NC Administrative Office of the Courts (AOC). In addition, the NC Department of Education has Monitoring the Future data.

Data on alcohol use in the United States and North Carolina shows North Carolina is below average in any alcohol use, binge alcohol use (i.e., five drinks or more), and heavy alcohol use. North Carolina is slightly below the national average for illicit drug use. Regardless of how we fare nationally, North Carolina needs to determine a good target for this state.

For alcohol, the group in North Carolina most likely to use is 25-34 year olds (51%) and 35-44 year olds (49%) and the group most likely to binge is 18-24 year olds (18%) and 25-34 year olds (18%). Alcohol use in North Carolina varies by race: 12% of whites and Hispanics, 8% of blacks, 11% of others (including Native Americans) report binge drinking. For illicit drugs, the group most likely to use is 18-25 year olds (17%) and 12-17 (11%) year olds. Nearly 10% of North Carolina students between 9-12th grade report drinking and driving. Almost 35% of 9th graders report having used alcohol before age 13. Thus, it is important to target prevention and treatment efforts at young adults.

There are many consequences to substance abuse: alcohol dependence, illicit drug dependence, alcohol-related traffic deaths, alcohol-related crashes and deaths, drug-related arrests, drug overdose deaths, and possession of controlled substances. Nearly 7% of North Carolinians report alcohol dependence or abuse, and 3% report illicit drug dependence or abuse. Nearly 15% of 18-25 year olds abuse or depend on alcohol. There is a significant drop-off in abuse and dependence at age 26 and older. Similarly, 18-25 year olds have the highest level of illicit drug dependence. These numbers suggest there are a lot of young people who are

in need of and eligible for treatment who are not receiving it. Nevertheless, prevention needs to be targeted at 12-17 year olds to have the most impact.

The number of cases of drug overdose mortality has been increasing since 1997, but more recent data than 2001 is not available. Between 2000 and 2005, over 35% of traffic deaths in North Carolina were alcohol-related, which equated to about 530 lives lost per year. Of all the crashes in North Carolina between 2000 and 2005, 10,000-13,000 crashes were alcohol-related. From 2002-2006, over 1000 alcohol-related crashes/fatalities involved immigrant and minority populations.

In 2003-2004 and 2004-2005, the rate of possession of controlled substances was 300 cases per 100,000 students for grades 6-8 and 700 cases for grades 9-12. The number of times controlled substances were found on school property was close to zero for grades K-5 (but not zero), around 1000 for grades 6-8, and near 3000 for grades 9-12. The rate of arrests of North Carolina adults for drug law violations is over 500 adults per 100,000, which is close to the national average.

Some emerging issues include drug seizures by the Drug Enforcement Administration, substance abuse by the elderly, and substance abuse among immigrant populations. The top five drugs seized by DEA include: cannabis, cocaine, heroin, methamphetamine, and oxycodone. The DEA Data system can pick up new and emerging drugs. There is good data for North Carolina that can be broken down by county to help local municipalities target treatment efforts. Every county has an issue with substance abuse, but why it is happening is different for different counties. Some of our seizures are due to catching people on their way from Florida to New York.

There is limited county-level data available for analyses. For school-age populations, there are annual surveys in all schools, but schools tend to be over-surveyed and this data involves sensitive information. School systems with good data can evaluate whether interventions are successful, but the majority of North Carolina schools do not have good data. For college-age populations, there are risky behavior surveys in all institutions of higher education. Data are needed in order to justify interventions. For the elderly population, there is a risk of oversampling. Until we change how we collect substance abuse information, we are handicapped to intervene.

Comments:

There is no data looking at the correlation between seizures and incidence of use. We are beginning to overlay data to get at these questions. Treatment data are easier to gather than prevention data. We need numbers to support prevention efforts. We also need more data on risk factors. We can get decent state level data, but we need county level data. Local Management Entities need data on their particular counties to close the gap between who they treat and who they need to treat. They also need county-level data to show the efficacy of their prevention efforts.

The Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System can get data on adults. The Department of Public Instruction can get data on school children. We should look at other systems' data (e.g., Division of Social Services, education, addicted parents, mental health especially for girls with depression) for kids who are showing up there before they are showing up in the addiction system. One of the most effective prevention efforts might be treatment in other systems.

The Division of Mental Health, Developmental Disabilities and Substance Abuse Services has funded 19 three-year grants to look at the counties with the highest number of fatal crashes to determine what can be done.

We also need to look at barriers to treatment, such as lack of capacity, lack of trained provider, and affordability of treatment.

THE PUBLICLY-FUNDED SUBSTANCE ABUSE SYSTEM AND BARRIERS TO CARE

Flo Stein

Chief

Community Policy Management

Division of Mental Health, Developmental Disabilities and Substance Abuse Services

NC Department of Health and Human Services

Most substance abuse treatment in the United States and North Carolina is provided by tax dollars (e.g., Medicaid, block grants, state appropriations). Public mental health is managed by local management entities (LMEs), which organize providers to perform needed services. Providers may have limited experience in dealing with substance abuse, and they may have to learn the skills to deal with substance abuse patients. Therefore, the LMEs need an infrastructure that allows them to help providers deliver services.

Most people in treatment are adults. Most of the people with addictions are white males, but we do more surveillance and justice interventions for certain minority populations. People have been concerned about declining admissions for substance abuse services. People with driving while intoxicated (DWI) offenses have to pay for their own treatment. Our data should reflect people with more serious problems than DWIs.

Our problem is not in the design of our system of care for adults and children with substance abuse problems, our problem is in access and implementation. We need a system that is participant (consumer) driven, prevention focused, outcome oriented, and cost effective. The system needs to reflect best treatment/support practices, be integrated in communities, and be distributed equitably and fairly statewide. There are three principles to substance abuse system reform (from SAMHSA):

- Invest for Results – close serious gaps in treatment capacity to reduce associated health, economic, and social costs
- “No Wrong Door” – effective systems must ensure that individuals needing treatment will be identified and assessed and will receive services either directly or through appropriate referral, no matter where he or she enters the realm of services
- Commit to Quality – establish a system that more effectively connects services and research, with the goal of providing treatment based on the best scientific evidence

Substance abuse treatment should be person-centered. The process should identify the individual’s strengths and address the whole life of the individual including medically necessary needs and preferences by using other available supports. North Carolina’s substance abuse system is comprised of many treatment components and comprehensive services. The substance abuse continuum of care involves self-help at the beginning when individuals need to decide they need treatment and at the end when individuals have to manage their own care to avoid another acute episode.

In North Carolina, the substance abuse workforce is comprised of independent practitioners associated with the NC Substance Abuse Professional Licensure Board and licensed clinical addiction specialists that are able to directly enroll with Medicaid and practice independently. There are currently 1,516 licensed clinical addictions specialists and more in the pipeline. North Carolina often provides substance abuse services through teams composed of one person qualified to provide substance abuse services and a few others (e.g., coaches, peer supporters) who work under that individual.

North Carolina has prioritized certain groups for substance abuse services because these populations have savings beyond the particular individual receiving services: pregnant injecting drug users and pregnant substance abusers, injecting drug users (because they increase crime and infectious diseases), children and adolescents in the social services system with school problems or with a parent in substance abuse treatment services, persons who are deaf and need special services (because this population has higher rates of abuse), persons with co-occurring disorders, and homeless individuals.

There are many substance abuse-specific services that any state should have. The problem is in distribution of these services. States should have crisis services with professional services in facility-based programs and mobile crisis units. Detoxification services should be available at four levels: ambulatory detoxification, social setting detoxification, non-hospital medical detoxification, and medically supervised detoxification. States should also have a substance abuse intensive outpatient program (SAIOP) and a substance abuse comprehensive outpatient treatment program (SACOT). States should provide opioid treatment. In addition, states should provide residential supports at four levels: substance abuse halfway houses, non-medical community residential (30 days) facilities, medically monitored community residential facilities, and inpatient substance abuse treatment. Many North Carolina counties do not have any treatment programs. The NC CASAWORKS Family Residential Initiative and the NC Perinatal and Maternal Substance Abuse Initiative are not available in many parts of the state.

North Carolina recognizes that an effective continuum of care involves moving people up and down on the spectrum of available services depending on their substance use and their response to treatment. North Carolina is one of 36 states following the American Society of Addiction Medicine guidelines.

North Carolina currently has three Alcohol and Drug Abuse Testing Centers (ADATCs). The Julian F. Keith ADATC in Black Mountain currently has 10 acute/crisis beds (which will be increased to 30 beds by May 2008) and 70 sub-acute beds. The R.J. Blackley ADATC in Butner currently has 20 acute/crisis beds (which will be increased to 30 beds by October 2007), 25 sub-acute beds (which will be increased to 30 beds by October 2007). This ADATC will increase its capacity to 75 beds (30 acute/crisis and 45 sub-acute) by March 2008 and will increase its capacity to 80 beds (30 acute/crisis and 50 sub-acute) by September 2008. The Walter B. Jones ADATC in Greenville opened a 24-bed acute/crisis unit in July 2007 and currently has 56 sub-acute beds. ADATCs need to be able to take the more serious patients. They should not be used for detoxification. All the ADATCs have been getting more acute beds for non-voluntary commitments so they can treat a lot more of the mental health patients. The ADATCs will benefit from the money being put into Crisis Centers around the state. The NC General Assembly put \$21 million into local crisis plans around the state. This money should allow more people to get treatment at the local level.

To adequately provide for children and families with substance use disorders or mental health needs, North Carolina needs services that are delivered in the home and community in the least restrictive, most appropriate and consistent manner possible. We need a new system of effective quality care that provides accessible, culturally appropriate treatment, intervention services, and prevention services. Child specific services include: intensive in-home treatment, community support, child and adolescent day treatment, multisystemic therapy, intensive outpatient treatment, and non-medical community residential (30 days) treatment. The NC American Society of Addiction Medicine (ASAM) levels of care for adolescents include prevention and several treatment levels. Level I treatment includes diagnostic assessment, community support services, mobile crisis management, intensive in-home services, and multi-systemic therapy (MST). Level II.1 treatments include child and adolescent day treatment, and SAIOP. Level III.5 treatments include substance abuse non-medical community residential treatment. Level IV treatments include inpatient hospital substance abuse treatment.

The Strategic Prevention Framework (SAMHSA) grant requires North Carolina to show whether its prevention efforts are working. North Carolina currently has no other data besides traffic deaths so we have to show improvements in the number of traffic deaths. We want data on community, school, and family prevention. The goal is to look at the problem, design a specific intervention that addresses the problem, implement the program, monitor the program, and see if the program changes outcomes. We might find that our dose of treatment is so low that we cannot see improvement in data. NC Coalition Sites are community coalitions that target environmental and community factors. They have found some success and have a variety of funding sources.

There are seven adolescent substance abuse regional residential program initiatives. We need more because you want kids to be in their school during their treatment or to return to their school and their family when they complete treatment. The Managing Access to Juvenile Offender Resources and Services (MAJORS) program is a joint initiative between the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (MHDDSAS) and the Department of Juvenile Justice and Delinquency Prevention. The purpose of the MAJORS program is to develop and implement intensive and innovative outpatient substance abuse treatment to drug- and alcohol-involved juvenile offenders and their families. The program targets North Carolina youth under 18 years old who are adjudicated delinquent, on probation, or under the active supervision of a Juvenile Justice Court Counselor and in need of substance abuse services. The average length of treatment is seven months. The MAJORS program has been in operation in North Carolina since 1999 and is currently located in 61 counties and 31 judicial districts.

North Carolina DWI Services provides oversight of treatment and education on policies and training. DWI Services authorizes DWI assessors and Alcohol and Drug Education Traffic (ADET) schools and instructors. DWI Services oversees over 400 authorized providers. It would be good to get judges more involved in making sure offenders comply with treatment.

Treatment Accountability for Safer Communities (TASC) is a model that bridges two separate systems—justice and treatment. TASC links the treatment and justice goals of reduced drug use and criminal activity. TASC uses processes that improve treatment access, engagement, and retention. TASC provides the following core services: screening and assessment; referral and placement; care planning, coordination and management, and reporting progress to the justice system. The number of people served by TASC has been increasing.

North Carolina has the third largest system of Oxford Houses. Oxford Houses are clean and sober housing for people in recovery, usually after they have completed a treatment program. There are 116 houses in 28 cities with an average of nine beds per house, totaling over 850 Oxford House beds in the state. Residents are expected to participate in community recovery programs during their residence. The average length of stay is 18 months but people can stay as long as they need to.

There are many barriers to effective substance abuse care. The amount of preparation needed for successful consumer participation is large, and as a result LMEs having trouble filling spots because self-help is required. Many consumers do not know their rights, including their privacy rights. If a person's history of abuse gets out, he or she will not be able to get health insurance, life insurance, or student loans. Another barrier to care is the availability of a qualified workforce. There are also problems in provider system readiness due to the current limited infrastructure. Additionally, LMEs are inexperienced in relational contracting. Also, there are many challenges in taking evidence-based practices to scale.

There are several promising treatment ideas for the future. Medications are hardly being used in North Carolina, and studies have found the best outcomes occur when therapy is combined with medication. Therefore, North Carolina needs to use more medication-assisted therapies. The Screening, Brief Intervention, and Referral and Treatment (SBIRT) program is an evidence-based substance abuse intervention in primary care. In addition, recovery-oriented systems of care that combine services and supports have potential.

Comments:

The location of programs is based on communities or mental health regions developing them or requests for proposals (RFPs). The NC General Assembly gave MHDDSAS \$6 million to create programs by RFP. There have to be lots of partners to get programs going. Most programs take people from all over the state regardless of where the program is located. Residential programs do not usually allow immediate access.

Women have always been underrepresented in substance abuse treatment, and they have complicated costs.

When we do not partner physical and mental health, we put patients at risk. The ultimate answer is integrated medicine. The parity legislation that passed this session excludes substance abuse. Mental health treatment may be covered in some private plans (e.g., BCBS covers some), and then there will be more state dollars available for substance abuse treatment. LMEs are doing a lot of cost containment, and we have found not providing the benefit costs more than providing it. Substance abuse parity is still moving through Congress. There is a lifetime max of \$12,000. The bigger issue is that by the time people get ready to go into treatment, they are often unemployed and uninsured. Insurers often set up hard standards for patients, such as requiring patients to fail outpatient treatment twice before they get inpatient services. Employers often fire employees who fail treatment, and then employees lose their group coverage. As a result, 80% of substance abuse treatment is paid for by the public sector. Many young people do have health insurance through their parents. Because Medicaid covers Health Choice every three years, though, a lot of adolescents are lost during the in between time even though they have primary care.

The continuum of care requires participation by hospitals because they send intoxicated patients away to facilities that can't handle "ICU" type patients.

The SAMHSA priorities limit the amount of money that can be put into prevention for adolescents. The mental health block grant has a small amount of money for kids. There is not a lot of adolescent treatment of substance abuse in the United States. We want treatment for kids to be offered in the home so that providers can work with the whole family. Often times an adult family member also is abusing substances, and the family will let providers in the home to treat the child.

The media has traditionally demonized drugs. We tend to lose our sense of proportion when dealing with drugs. The strategy of community coalitions is an effort to get parents involved. In Dare County, 60% of citizens identified substance abuse as the number one health problem. The community was informed of a plan that would be effective, and we were able to change the culture around substance abuse. People do not understand it is a chronic disease, and our culture views binge drinking in college as normal. Educating the public should be one of the Task Force's strategies.

North Carolina has 700 unintentional deaths due to prescription misuse. There is a new program where providers can look up patients to see if they are going to other providers.

Although North Carolina has a good public policy for probation in the state, the NC Division of Prisons gets criticized from both sides. One side claims they are sending too many people back to prison for technical violations. Yet, when one violent crime occurs, people ask why that person was not sent back to prison. The group with the largest number of probation offenders is 16-25 year olds.

Pam thanked everyone for coming and asked that Task Force members email staff about other topics they would like to discuss.