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Speech: Parents Corps Conference

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Good Morning. Sue, thank you so much for your kind introduction and for inviting me to speak to this critical audience. I have seen the passion, intelligence and dedication you bring to these issues for years and consider you a national treasure. It is indeed a pleasure to address you and this critical group, on the front lines of prevention.

I begin on a somber note.

Many parents are conscientious and do their utmost to shield their children from hazardous drugs. But even with loving care, we can be surprised.

An obituary appeared in the Boston Globe: December 26, 2000

Christopher, a Cambridge native who graduated from Harvard with honors two years ago, died Dec 16 in Dublin. He was 24. The cause of death was listed as an accidental drug overdose. He was a second-year medical school student at the Royal College of Surgeons in Dublin, pursuing his long time dream of becoming a trauma surgeon. His mother, a pediatrician said her son was flourishing overseas. He was a young man at the prime of his life who was thrilled with what he was doing. He was associate sports editor of the Harvard Crimson. He loved to scuba dive and ski and had earned his pilot's license. He liked to make CDs for his friends and had a fierce love of animals. He had been struggling with drug abuse, according to his mother. He got in the tangled web of thinking that he could manage soft-core drugs and he became drug- dependent. It got to the point where he could not abstain. He leaves his mother, father, two brothers and a sister.

This wrenching personal story highlights two critical points:

First, drug addiction does not discriminate on the basis of educational achievement, financial status, motivation, family status or stability. Although unstable, abusive homes can contribute to drug addiction, identifying with certainty the susceptible, is not yet possible. Prevention and intervention programs that target vulnerable populations, without preconceived views or profiles, need effective implementation in every home, school, city, community, county in our nation.

My second point: no one initiates drug use with the intent of becoming addicted. A susceptible individual can cede control over their behavior in imperceptible steps, or gradually or

precipitously. At the end point, drugs can supplant naturalistic pleasures, goals and induce a severe loss of judgment and addiction.

Even immediately after first exposure, drug use can take a dark, unintended, unanticipated consequence, whether from an accident, a failure at meeting a school commitment, impaired performance or loss of control.

To quote the author Arthur Koestler, "Chemically induced hallucinations, delusions and raptures may be frightening or gratifying; in either case they are in the nature of confidence tricks played on one's own nervous system".

As concerned parents, we must keep in mind that

- ❖ *Studies show that parents are the most important factor in helping adolescents decide whether to engage in drug use or not.*
- ❖ *Adolescents in households in which parents set clear rules against marijuana use are 5 times less likely to use marijuana than in households that have no strong opinions or support use.*
- ❖ But the home environment can be more malevolent than parental opinion.
- ❖ Some statistics from CASA in New York:
 - ❖ parents who abuse alcohol or illicit drugs are 3-4 times more likely to abuse and or neglect their children than parents who do not.
 - ❖ These children are at increased risk for physical injuries, illnesses, and academic failure. They are more likely to experience depression, conduct disorders, or anxiety, which in turn can lead to self-medication with psychoactive drugs.
 - ❖ 13% of children under 18 years of age in the United States live in a household where a parent or other adult uses illicit drugs.
 - ❖ 24% of children live in a household where a parent or other adults is a binge drinker or heavy drinker. 37% of children live in a household where a parent or other adult uses tobacco.

I come to this position with strong convictions: There is a compelling rationale to promote prevention of drug use, to attenuate drug use and to treat drug abusers and addicts.

WHAT IS THE MAGNITUDE OF THE PROBLEM?

Substance abuse/addiction disorders are among the most prevalent of the preventable diseases in the country.

Of brain disorders substance abuse/addiction rank first in cost-prevalence, surpassing Alzheimer's disease, depression, spinal cord injury, and other devastating maladies of the nervous system.

This dubious distinction has only one competitor, pain, and pain and addiction are linked. Certain forms of pain can be managed with potentially addictive drugs. Interestingly, the numbers of patients treated with pain medications who progress to addiction is increasing and misuse or abuse of opioid analgesics is escalating, particularly in youth.

It is not surprising that some drugs that alleviate neuropsychiatric problems have the potential to promote abuse and addiction.

There is yet another consequence of drug use abuse and addiction:

It is not well documented. Several physicians are spearheading a research program to learn of the association of substance abuse on the course of chronic diseases. At least 20 diseases are implicated. For example, there is mounting evidence that alcohol abuse – but not necessarily alcoholism - can affect adversely sleep disorders, depression, hypertension and diabetes.

WHAT IS THE SCOPE OF THE PROBLEM?

Substance abuse can impact people from *in utero* to old age.

- ❖ Prenatal exposure to drugs is linked to low birth weight and can be associated with developmental disorders (For example FAS, or FAE).
- ❖ Parental use of drugs can result in severe neglect and/or abuse of children. It can also promote drug use in offspring.
- ❖ In adolescence and adulthood, drug use can be associated with poor school performance, accidents, unplanned sexual activity and pregnancy, violence, and criminal activity.
- ❖ The work performance of illicit drug users is problematic. They have characteristic absenteeism, health problems, work place injuries, high turnover, and lost productivity.
- ❖ Older persons do not escape the long-term effects of drug, as addiction, compromised health and interrupted educational and social development take their toll.

Parents can play a pivotal role in preventing these dire consequences at every stage of human life.

To be effective, we need to understand the critical risk factors that affect risky behavior and progress to increasing harm to our children. We need to learn how to inject positive but honest messages into daily life.

There are three critical risk factors, environment, individual biology, and drugs, which may converge to lead to addiction.

These are at least 50 risk factors that promote drug use or abuse; a number of environmental factors can prevent drug use. Parents are the most effective contributors to their children's attitudes towards drugs. Children do not want to disappoint their parents.

Perception of harm is another critical factor, parents and schools need education on current information, evidence-based, on the harmful effects of drugs.

Individual susceptibility is an important factor: psychiatric co-morbidity and genetics play critical roles. By learning how genes contribute both to substance abuse and to psychiatric

symptoms, we will be better equipped in the future to identify vulnerable youth and intervene long before they progress down the “road to adverse consequences”.

Genetics contributes approximately 50% of susceptibility to addiction, the actual number depending on a specific drug and individual.

The genetics of drug addiction is complicated; it is not merely a single gene that promotes drug use: a number of different genetic mechanisms that theoretically may contribute to drug abuse/addiction: first, the initial reaction to a drug may be genetically determined. Upon repeated exposure, the brain adapts to the drug and adaptation may involve the strength of the memory associated with repeated drug use, or the ability of the brain to function normally in the absence of the drug. Third, the genetics underlying drug metabolism, production of metabolites, or drug clearance from the brain, may promote or inhibit drug use. Fourth, physical adaptation to the drug, which differs from psychological dependence, may be another critical factor in driving a user to repeated use.

The biology of drug effects in the brain are both fascinating and terrifying. Drugs invade the communication system of our brains, altering some of the most fundamental properties of brain cells. An understanding of drug effects can provide powerful messages and images of the consequences on introducing foreign chemicals into our internal master control system. Drugs can change the brain via a number of mechanisms: adaptation, toxicity or other processes that can lead to a de facto brain disease. For example, cocaine produces changes in expression of over 100 genes following repeated exposure, although we still are not in a position to visualize these changes in human brain. It can also interfere with blood supply in the brain. Other drugs, notably amphetamines and inhalants are notoriously toxic to brain cells and one can clearly see the results of methamphetamine damage to brain dopamine cells after high dose exposure.

Prevention and intervention are effective means for curbing drug use and the potential for progressing to addiction. A range of influential people, particularly parents, teachers, physicians, the clergy, adult role models and parents can intervene.

Treatment for addiction is cost-effective and has positive outcomes. Treatment effectiveness can be measured by reduced drug use, improved physical (reduction in infections and HIV seropositivity) and mental health, employment, family relationships, reduced mortality, crime, and diminished costs to society (medical, legal, social services, employment, school).

How do we address the need for improved prevention, intervention and treatment in the coming years?

- ❖ ● For 2007, the President requests 12.7 billion dollars to support three key priorities of the 2006 National Drug Control Strategy:
- ❖ Stopping Use before it starts: Education and Community Action - support for effective programs to help communities obtain a drug-free environment and encourage young people to reject drug use.

- ❖ Intervening and healing America's drug users – continues to focus on screening and ensuring that treatment is available for those who need it.
- ❖ Disrupting the market: targets individuals and organizations profiting from trafficking in illegal drugs.
- ❖ The Strategy builds on the progress already made by outlining a balanced, integrated plan aimed at achieving the President's goal of reducing drug use by 25%.
- ❖ Like all tripods, this three-pronged program requires three legs to stand effectively. Each is crucial and each sustains the other.
- ❖ Let me describe specific programs:
- ❖ Student drug testing: The President's budget request \$15 million, an increase of \$4.6 million

What is the rationale for this program?

- ❖ This non-punitive program, designed to screen students who participate in extracurricular activities, for drugs was upheld by a Supreme Court decision in 2002.
- ❖ The program provides competitive grants through the Department of Education to support schools in the design and implementation of programs to screen randomly selected students and to intervene with assessment, referral, and intervention for students who test positively.
- ❖ In the past two years, the program has grown from 79 schools across 8 states to 294 schools – a total of 128,110 students - in 21 states.
- ❖ Nearly 400 schools/school districts have availed themselves of this opportunity to implement testing programs since 2003.
- ❖ The latest initiative adds 11 new grants, combined with a national evaluation study.

What are the outcome measures thus far?

- ❖ A recently published study on the efficacy of SDT in Indiana high schools conducted by Ball State University Professor Joseph McKinney found a 58% reduction in reported drug use by students; the program did not discourage even one student from participating in athletic or extracurricular activities. In fact the opposite occurred; there was a 45% increase in school extracurricular activities. Academic grades were another positive outcome measure: 79% of the participating schools reported higher scores than the state average in mandated graduation test for grades 10-12. (February 23 issue of West's Education Law Reporter)

A second program focuses on identifying users by medical professionals [Screening, Brief Intervention, Referral and Treatment (SBIRT)]

What is the rationale for this program?

- ❖ This program is designed to close the gap between prevention and treatment programs, by casting a wide screening net on populations that engage medical professionals. It provides a continuum of care for persons at various stages of illicit drug use, problematic drinking and substance use disorders.
- ❖ This five-year grant program (FY 2003) assists States, Territories and Tribes to identify persons with substance use or disorders and increases treatment access for identified individuals. It enables matching the person's stage of illness and problem severity and expands treatment options.

What are the outcome measures thus far?

- ❖ The preliminary data from this early implementation phase suggests that SBIRT has to date, assisted in the early identification and treatment of persons with substance use problems and disorders in generalist settings.
- ❖ Current data reflects six months of self-reports from the seven grantee sites: California, Cook Inlet Tribal Council, Alaska, Illinois, New Mexico, Pennsylvania, Texas, and Washington State.
- ❖ As of May 2006 more than 382,000 patients have been screened (110% of target). More than 15 percent have been identified as appropriate for brief intervention and 3 percent as appropriate for referral to specialty treatment.
- ❖ For the seven existing grantees, Screening, Brief Intervention and Treatment is offered in the primary/generalist setting so as to avoid overwhelming specialty care providers. The Grantee States are integrating SBIRT into primary/generalist approaches to treating and supporting persons with substance use problems, including early identification.
- ❖ Interestingly, the program is being expanded into college populations: 15 colleges and universities have received grants to screen students on campuses beginning this academic year.

A third program is designated Drug Free Communities: \$79.2 million

- ❖ Coalitions of community leaders and professionals in health care, law enforcement, and education provide local grassroots solutions to challenges posed by drug and alcohol abuse.
- ❖ Currently supports 720 community anti-drug coalitions in 50 states, the District of Columbia and Puerto Rico.

A fourth program: New treatment approaches for Methamphetamine addiction: \$41.6 million

- ❖ To support continued research on methamphetamines mechanism of action, physical and behavioral effects, risk and protective factors, prevention and treatment interactions.

A fifth program: Access to Recovery: \$98 million

What is the rationale?

This program fills significant gaps in treatment choices by providing vouchers to people needing and seeking help for a range of community-based services.

- ❖ In his State of the Union, President Bush announced the \$100 million in Access to Recovery Grants.
- ❖ This year the President's Budget requests \$98 million dollars to continue to help people with addictive disorders through the ATR program. At the end of 2005, more than 30 thousand clients received clinical treatment, and more than 20 thousand received recovery support services because of ATR.
- ❖ By providing vouchers, the grant program promotes client choice, expands access to a broad array of clinical treatment and recovery support services, including services provided by faith and community based programs, and increases substance abuse treatment capacity.
- ❖ Treatment works, but addiction is not a one-size-fits-all disease. This program represents the next step in our ability to treat this disease, opening the door to a full range of treatment providers.

A sixth program: Drug Treatment Courts: \$69.3 million (increase of \$59.3)

What is the Rationale?

- ❖ Drug treatment courts provide alternatives to jail for certain populations of people who committed offenses. Drug courts use the power of the courts and the support of family, friends, and counselors to bring people to the path of recovery and to help them achieve drug free lives.
- ❖ While some drug court programs divert offenders away from the criminal justice system and into treatment, drug courts in no way release offenders from being accountable.

Prevention

Prevention needs to incorporate state-of-the-art information and materials into the consciousness of parents, teachers, and our youth population.

Together, we can achieve progress in reducing illegal drug use, particularly among our youth. We can make our streets and neighborhoods safer by limiting drug availability.

- ❖ The National Drug Control Strategy lays out a thoughtful, achievable vision to reduce drug use in America.
- ❖ Accountability and results are the benchmarks of this approach.
- ❖ Education programs and outreach activities developed using a public health model spread the word that illicit substances can be harmful to the health and well-being of the individual as well as detrimental to society as a whole.
- ❖ Emphasizing treatment to heal America's drug users reinforces this message and helps thousands start their life anew.

We know that attaining the President's goals will be possible only through collaboration with essential community institutions. We can make dramatic progress against drug use.

Drug prevention, intervention, and treatment can prevent developmental disorders, improve parenting, quality of life of the individual, their family members and friends, enhance health and longevity, increase productivity, and reduce violent behavior, crime and even death. It can have a major impact on reducing health care costs, and a host of other costs borne by tax-payers.

Overall,

We must win this struggle for the minds of our youths.

We must prevent people from self-inflicting a brain disease.

We must stigmatize drug use but not the brain diseased user.

We must help the addicted to terminate a drug stranglehold on their brains.

Why?

Because the brain is the repository of our humanity, wisdom, our ability to love, learn, create, compute, compose, contemplate, think, to remember, to feel empathy for others, to engage in justice and compassion. We in this room recognize how precious, unique and fortunate we are to be the bearer of functional minds. We are united in a passionate desire to protect the minds of our most vulnerable – the children.