ECSTASY: A GROWING THREAT TO THE NATION'S YOUTH

HEARING

BEFORE THE

SUBCOMMITTEE ON CRIMINAL JUSTICE, DRUG POLICY AND HUMAN RESOURCES

OF THE

COMMITTEE ON GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

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CONTENTS

	Page
Hearing held on September 19, 2002	1
Statement of:	
Hutchinson, Asa, Administrator, Drug Enforcement Administration; and Dr. Glen R. Hanson, Acting Director, National Institute on Drug Abuse	7
Patton, Kate, Kelley McEnery Baker Foundation; Lynn Smith; and Dr. Terry Horton, medical director, Phoenix House	39
Letters, statements, etc., submitted for the record by:	
Hanson, Dr. Glen R., Acting Director, National Institute on Drug Abuse, prepared statement of	22
Horton, Dr. Terry, medical director, Phoenix House, prepared statement of	56
Hutchinson, Asa, Administrator, Drug Enforcement Administration, prepared statement of	11
Patton, Kate, Kelley McEnery Baker Foundation, prepared statement of	43
Smith, Lynn, prepared statement of	50
Souder, Hon. Mark E., a Representative in Congress from the State of Indiana, prepared statement of	3

ECSTASY: A GROWING THREAT TO THE NATION'S YOUTH

THURSDAY, SEPTEMBER 19, 2002

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CRIMINAL JUSTICE, DRUG POLICY AND HUMAN RESOURCES,
COMMITTEE ON GOVERNMENT REFORM,
Washington, DC.

The subcommittee met, pursuant to notice, at 1 p.m., in room 2203, Rayburn House Office Building, Hon. Mark E. Souder (chairman of the subcommittee) presiding.

Present: Representatives Souder, Cummings, Dan Davis of Illinois, and Jo Ann Davis of Virginia.

Staff present: Nicholas P. Coleman, counsel and professional staff member; Roland Foster, professional staff member; Nicole Garrett, clerk; and Julian A. Haywood, minority counsel.

Mr. SOUDER. The subcommittee will now come to order.

I would like to thank everybody for coming. I look forward to this hearing this afternoon.

Unfortunately, as I am sure most of you know here, it does not take an expert to know that the abuse of the drug ecstacy among young people in America continues to increase to unprecedented and alarming levels. You can look at the countless newspaper articles from virtually every city and town across America describing the concern of parents and educators for the safety of children and teens. You can look at a popular culture that glamorizes the "club scene" that provides much of the base for the spread of ecstasy use, or you can look at a television program like HBO's "Small Town Ecstasy," which showed a California father who not only actively permitted and encouraged his children to use ecstasy, but joined them.

What may not be readily apparent to the public or to our impressionable children, however, is the growing severity of the ecstacy problem for our country, our society, and, most importantly, for the victims who use the drug and their families. It should not have been much of a surprise that one of the last scenes in "Small Town Ecstasy" took place in a doctor's office, where one of the kids learned that he had a form of brain damage. And yet there are some so-called scientists who even today try to perpetuate the myth that ecstasy is not harmful or even, bizarre as it may seem, has some sort of therapeutic value.

Anecdotal evidence aside, the hard numbers and the science similarly tell us that there is real cause for alarm and heightened action on the part of families, law enforcement, and health care

providers. The new National Household Survey on Drug Abuse, released 2 weeks ago, shows that the most dramatic increase in all illegal drug use has been from ecstasy. In 2000, an estimated 1.9 million Americans used ecstasy for the first time, compared to 0.7 million in 1998. Thus, usage has tripled in just 2 years. Similarly, ecstasy linkage to emergency room visits has almost doubled from 2,850 in the year 1999 to 5,542 in the year 2001. Some 9.1 percent of college students, 9.2 percent of twelfth graders, and 6.2 percent of eighth graders reported that they have used ecstasy in the past year.

But behind all these cold numbers, we return to real, stark, and immediate problems that require prompt action from the Government and the drug control community. For starters, we must educate American parents and youth of the reality and the consequences behind the so-called glamour drug of ecstasy. One such effort was undertaken over the summer by the Partnership for a Drug Free America and incorporated into the Office of National Drug Control Policy's National Media Campaign. I would now like to take 2 minutes to screen four advertisements that have been running across America, and I commend the Partnership for its excellent work in this area.

[Video presentation.]

Mr. SOUDER. At today's hearing we will hear from two panels to expand upon the fundamental messages that were so eloquently conveyed in these ads. On our first panel, we are honored to once again have our former colleague with us, the distinguished head of the Drug Enforcement Administration, Mr. Asa Hutchinson. He will testify with respect to DEA's broad efforts to control ecstasy abuse in the United States, and we very much appreciate his leadership on this issue and so many other critical issues during his still-short tenure at DEA. The subcommittee will also receive scientific testimony from Dr. Glen Hanson of the National Institute on Drug Abuse on recent findings from NIDA and the NIH with respect to the significant harmful effects which ecstasy use has on our children.

On our second panel, we will move from the national level to the community level. We will hear personal testimony from Ms. Kate Patton and Ms. Lynn Smith on the devastating impact of ecstasy on users and their families. We will also hear from Dr. Terry Horton of the Phoenix House regarding the challenge of drug treatment for ecstasy abusers.

I thank you all once again for coming and look forward to the testimony on this important issue.

[The prepared statement of Hon. Mark E. Souder follows:]

Opening Statement
Chairman Mark Souder

"Ecstasy: A Growing Threat to the Nation's Youth"

Subcommittee on Criminal Justice, Drug Policy,
and Human Resources
Committee on Government Reform

September 19, 2002

Good afternoon and thank you for coming. Unfortunately, it doesn't take an expert to know that the abuse of the drug "ecstasy" among American youth continues to increase to unprecedented and alarming levels. You can look at the countless newspaper articles from virtually every city and town across America describing the concern of parents and educators for the safety of children and teens. You can look at a popular culture that can glamorize the "club scene" that provides much of the base for the spread of Ecstasy use, or you can look at a television program like HBO's "Small Town Ecstasy," which showed a California father who not only actively permitted and encouraged his children to use Ecstasy, but joined them.

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National Household Survey on Drug Abuse, released two weeks ago, shows that the most dramatic increase in all illegal drug use has been from Ecstasy. In 2000, an estimated 1.9 million Americans used Ecstasy for the first time – compared to 0.7 million in 1998. Thus, usage has **tripled** in just two years. Similarly, Ecstasy linkage to emergency room visits has almost **doubled** from 2,850 in the year 1999 to 5,542 in the year 2001. 9.1% of college students, 9.2% of twelfth graders, and 6.2% of eighth graders reported that they have used Ecstasy in the past year.

But behind all of these cold numbers, we return to real, stark, and immediate problems that require prompt action from the government and the drug control community. For starters, we must educate American parents and youth of the reality and consequences behind the so-called glamour of Ecstasy. One such effort was undertaken over the summer by the Partnership for a Drug Free America and incorporated into the Office of National Drug Control Policy's National Media Campaign. I would like to now take two minutes to screen four advertisements that have been running across America, and I commend the Partnership for its excellent work in this area.

[Tape of Advertisements]

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On our second panel, we will move from the national level to the community level. We will hear personal testimony from Ms. Kate Patton and Ms. Lynn Smith on the devastating impact of Ecstasy on users and

their families. We will also hear from Dr. Terry Horton of the Phoenix House regarding the challenge of drug treatment for Ecstasy abusers.

I thank you all for coming and look forward to your testimony on this important issue.

Mr. SOUDER. I would now like to recognize Mr. Cummings, our ranking member, for an opening statement.

Mr. CUMMINGS. Thank you very much, Mr. Chairman. One of the most alarming trends in the area of illegal drug consumption in America is the growing use of ecstasy and other so-called "club drugs" among our Nation's youth.

A thriving youth subculture has developed around the all-night "rave" parties and dance clubs where these drugs are widely used by teens and young adults to enhance sensory perception and boost stamina. What makes the trend so dangerous is the fact that most users seem to believe that these drugs are soft or benign. In fact, there is simple scientific evidence that they are not benign. Indeed, just like heroin or cocaine, these drugs can be lethal in large doses or when combined with other toxic substances such as alcohol or other illicit drugs.

Moreover, in addition to the immediate short-term psychological and physical effects they induce, these drugs appear to have long-term, irreversible effects on brain function, permanently impairing thought and memory. Apart from the dangers that result from voluntary use of club drugs, the malicious abuse of GHB and petamine as "date rape" drugs, employed to sedate unsuspecting victims, provides additional cause for alarm.

It should concern all of us that the "club drug" trend shows no signs of letting up. On the contrary. National surveys on drug abuse show that the use of these drugs has been steadily on the rise since at least 1992, and that it continues to increase despite a growing recognition that the use of "club drugs" involve serious health risks. The trend is also spreading demographically. Once concentrated among middle-and upper-class predominantly white users, ecstasy is finding its way into America's inner-cities.

We will hear today from Administrator Asa Hutchinson about the Drug Enforcement Administration's efforts to combat the "club drug" trend through interdiction and community outreach. We will hear from Acting Director Glen Hanson about the National Institute on Drug Abuse's efforts to conduct, evaluate, and disseminate scientific research on the harmful effects of "club drugs." Lynn Smith will give us a personal perspective of a former user of ecstasy. Kate Patton lost her daughter Kelly tragically to an ecstasy overdose and will tell us about her efforts to enlighten other parents about the dangers "club drugs" pose to young people. Dr. Terry Horton, Medical Director of Phoenix House in New York City, will discuss the unique characteristics of the "club drug" phenomenon, including the spread of club drugs to the inner-city.

As always, Mr. Chairman, I commend you for holding this important hearing and for your commitment to this important issue. I look forward to hearing the testimony of all of our witnesses today, and I want to thank all of you for taking time out of your busy schedules to be with us so that we can make every effort to address this issue as best as we possibly can. Thank you very much.

Mr. SOUDER. Thank you.

Before proceeding, I would like to take care of a couple of procedural matters. First, I ask unanimous consent that all Members have 5 legislative days to submit written statements and questions to the hearing record and that any answers to written questions

provided by the witnesses also be included in the record. Without objection, it is so ordered.

Second, I ask unanimous consent that all exhibits, documents, and other materials referred to by Members and the witnesses be included in the hearing record, and that all Members be permitted to revise and extend their remarks. Without objection, it is so ordered.

Would the witnesses on the first panel please rise and raise your hands and I will administer the oath. As an oversight committee, it is our standard practice that all of our witnesses are asked to testify under oath.

[Witnesses sworn.]

Mr. SOUDER. Let the record show that both witnesses responded in the affirmative.

The witnesses will now be recognized for opening statements. We will begin with Administrator Hutchinson. We will allow 10 minutes, with some flexibility, for your opening statements.

STATEMENTS OF ASA HUTCHINSON, ADMINISTRATOR, DRUG ENFORCEMENT ADMINISTRATION; AND DR. GLEN R. HANSON, ACTING DIRECTOR, NATIONAL INSTITUTE ON DRUG ABUSE

Mr. HUTCHINSON. Thank you Chairman Souder and Ranking Member Cummings for both your opening statements and your interest in this issue and your conduct of this hearing today. Clearly, this is one of the most dangerous threats emerging on America's youth today, both ecstasy and other club drug abuse.

MDMA, commonly referred to as ecstasy, is a deceptively dangerous drug. Once MDMA was limited primarily to the "rave club" scene, but we have certainly seen that it is readily available on the street and it is just as likely to be peddled nearby schools as it is in a club scene. In making a couple of observations, I would describe it as the No. 1 drug problem of urban youth today. Second, there has been an explosion in demand by teens and young adults, as indicated by the DEA seizures, which are demonstrated on the chart over to the left, which shows the DEA's seizures of ecstasy have exceeded 9 million dosage units last year.

Another problem that we see with ecstasy is the distributors employ very savvy marketing techniques such as creative dye stamps in colors and leaflets boasting of security in different events of alcohol-free environments when in many instances it is an environment that is very open to the drug culture, if not ecstasy being promoted. And finally, there is a false perception that the ecstasy is safe, which is a dangerous perception. It is promoted by organizations such as Dance Safe that tries to encourage young people that this can be handled in a safe fashion. That is very dangerous information. There has been numerous instances of overdoses and deaths as a result of the use of ecstasy.

Clearly, not everyone that attends a rave does so for the drugs. But drug use and abuse is a common element of raves. I know because I have gone out and seen it for myself. Last weekend I visited a rave club in the Washington area and observed first-hand the dangers in public health issues associated with raves. Despite what appeared to be significant security precautions, you did not

have to be in the club very long before you observe what appears to be drug transactions taking place in the open.

Ecstasy, a Schedule I drug, is the most widely abused club drug in America. It allows the users to experience both hallucinogenic and stimulant effects which last several hours. Mr. Cummings mentioned other club drugs such as GHB and GBL, and many times ecstasy is taken in combination with these other drugs, one, for the up, the stimulant, and the other for the depressant. And so the drug mixture is a very serious health problem.

I appreciate the playing of the ads, Mr. Chairman. I applaud ONDCP's advertisements which have raised the awareness of the ecstasy crisis. Clearly, it tries to counter the misinformation out there that somehow this is a "love" or a "hug" drug. The harm is clearly demonstrated by the emergency room episodes, as demonstrated on the chart on the left, which shows that according to the Drug Abuse Warning Network nationwide hospital emergency room mentions for ecstasy rose from 637 in 1997 to over 5,000 last year. Teenagers and young adults have been the primary users of ecstasy. Some 77 percent of the ecstasy emergency room mentions were attributed to patients who were 25 years old or younger.

Now if we go to the production of ecstasy, this is a drug that is not produced in the United States in any significant amount. Ecstasy is synthetically manufactured in clandestine laboratories predominantly in the Netherlands and Belgium which produce the vast majority of ecstasy consumed worldwide, estimates being 80 percent of the world production of ecstasy occurs in those countries. I recently travelled to the Netherlands to meet with the Dutch police officials. Certainly I encouraged them to take more aggressive enforcement actions. The Dutch police have initiated a new program which centers around the synthetic drug unit to target ecstasy and synthetic drug organizations and they have allocated approximately $90 million in support of this initiative. This includes five units that enforcement activities will be carried out throughout the Netherlands. We hope that it brings some measure of success.

The profit margin is frightful as to who it encourages to get into this business. A typical clandestine lab produces 20 to 30 kilograms of ecstasy per day. One kilogram yields approximately 7,000 tablets. At $20 to $30 per tablet, one kilogram would conservatively generate $140,000. If it was $30 a tablet, it would be $210,000.

Currently, ecstasy traffickers utilize major airports in Europe as transshipment points for ecstasy destined for the United States. I do have a chart here that reflects the trafficking patterns for MDMA coming to the United States. As you can see, it primarily comes from Europe. But it comes through various means, sometimes via South America, into the United States and so there are a number of different routes that we have to watch looking for the MDMA traffickers. Los Angeles, New York, Miami are currently the major gateway cities for the influx of ecstasy and law enforcement efforts have increased in those airports and from an investigatory standpoint.

Even though they are produced through labs in the Netherlands and Belgium area, the organizations that transport those are many times of Israeli or Russian organized criminal entities. They dominate the ecstasy market in the United States. Other drug traffick-

ing organizations based in Colombia, the Dominican Republic, Asia, and Mexico have entered the ecstasy trade. We have noted intelligence that indicates cocaine from Colombia is being shipped to Europe in exchange for MDMA. So that opens up the market for the Colombian traffickers, which is certainly an alarming fact for anyone who has followed their involvement in recent years.

The DEA is engaged in some very significant operations. Just to name a couple of them, in August 2001 we culminated Operation Green Clover, a major operation that netted dozens of arrests, 85,000 tablets of ecstasy, and $1.3 million in currency. It came to public attention because the ecstasy killed a 16 year-old Brittany Chambers, who took one ecstasy tablet on her 16th birthday. After a 2-year investigation, we expanded that operation and really brought it down to the major traffickers that ultimately brought in that ecstasy with the green clover logo.

That same month we concluded another investigation, Operation Rave I and II, which was coordinated by the Special Operations Division, arresting 247 individuals, seizure of 7 million tablets of ecstasy, $2 million in currency, and over $1 million in other assets. It was a cooperative effort with our international partners, the Israeli National Police, the German National Police, and numerous European partners.

More recently, less than a month ago in August of this year, a Federal grand jury in Houston, Texas returned two indictments charging 34 individuals and two corporations with a variety of drug and money laundering offenses, including the distribution of more than 1 million ecstasy tablets.

And so although ecstasy is the most popular club drug, as I mentioned before and as Ranking Member Cummings mentioned, there are other club drugs, such as GHB and its analogues, commonly used in conjunction with ecstasy. GHB is a central nervous system depressant which was banned by the FDA in 1990. In the year 2000, the DEA documented 71 GHB-related deaths and seized 17 GHB laboratories with State and local law enforcement. It has been used in the commission of sexual assaults because it renders the victim incapable of resisting and may cause memory problems that could complicate case prosecution because they cannot remember the experience or the terror that happened to them.

Today, just a few hours before this hearing, Attorney General John Ashcroft and I announced the conclusion of Operation Web Slinger, a 2-year investigation to combat drug trafficking on the Internet. This investigation targeted four distribution groups who distributed date rape drugs GHB, GBL, and one for butanedyle, or BD, on the Internet. This was in four major cities, four different Internet operations in which they were marketing what appeared to be industrial solvents, cleaning solvents, and there is no mention on the Internet site that this drug could be used for human consumption, but in fact it was marketed for human consumption. There is at least one death that was attributed to that. We have arrested over 100 individuals yesterday in connection with that national/international operation.

The DEA and our law enforcement partners continue to focus on the enforcement aspect of MDMA trafficking. The combination of what we are doing in the enforcement arena with what groups like

this committee is doing in the education arena hopefully will make a difference and will help get the message out to our young people that it is extraordinarily dangerous. This is an example of a drug that is being marketed through drug availability. Demand is not everything in this particular case because availability created the demand, and that was part of the marketing strategy targeting our young people. We have got to be able to reverse the tide for that. Thank you for this committee's attention to this and your interest in this subject.

[The prepared statement of Mr. Hutchinson follows:]

Statement of
Asa Hutchinson
Administrator
Drug Enforcement Administration
Before the
House Government Reform Subcommittee on Criminal Justice, Drug Policy, and Human Resources

September 19, 2002

Executive Summary

MDMA (3,4-methylenedioxymethamphetamine), commonly referred to as ecstasy, is a deceptively dangerous club drug that poses an immense threat to America's youth. Frequently distributed at "Rave" venues whose advertising leaflets boast of security and alcohol free environments, MDMA continues to be extremely popular among middle-class adolescents and young adults. There have been numerous instances of overdoses and deaths attributed to the use of MDMA and other club drugs.

To address the threat of MDMA, the Drug Enforcement Administration (DEA) has initiated multiple innovative programs and generated numerous enforcement successes to combat the threat posed by these trafficking organizations:

- *DEA coordinates closely with our international counter-parts to target MDMA trafficking organizations to halt the transshipment of MDMA into the United States, which prevented the distribution of millions of dosage units.*
- *DEA continues to target and dismantle major domestic MDMA trafficking groups and seized 49 MDMA laboratories in the U.S. since 1999.*
- *As the lead U.S. Federal drug law enforcement agency, DEA continues to collect, analyze, and distribute vital intelligence information concerning the MDMA trade to state, local, and international law enforcement entities.*
- *Working in conjunction with associated local, state, federal, and community groups, DEA advances education and prevention strategies of MDMA and other club drug abuse.*

Chairman Souder, Ranking Member Cummings, distinguished members of the Subcommittee, I am grateful for the opportunity to address the Subcommittee regarding ecstasy and its effect on our country. The devastating effects of this drug on America's youth must be confronted, and the Subcommittee is to be commended for continuing to bring this most important issue to the forefront. As always, I would like to personally express my gratitude to the Subcommittee for your unwavering support for the men and women of the Drug Enforcement Administration.

MDMA Overview

MDMA, a Schedule I drug, is the most widely abused club drug in America. MDMA users experience both hallucinogenic and stimulant effects which last several hours. Accounts from users describe the drug as intensifying their senses, particularly the external sense of touch and an inward feeling of "closeness" or "empathy." They will often dance with fluorescent light sticks, use Vicks Vapor Rub and other miscellaneous items to increase stimulation and enhance the drug's effects.

Abusing MDMA can produce a number of adverse effects including severe dehydration, exhaustion, nausea, hallucinations, chills, sweating, increase in body temperature, tremors, involuntary teeth clenching, muscle cramping, and blurred vision. MDMA may also create after-effects such as anxiety, paranoia, and depression. Recent MDMA related deaths were associated with core body temperatures of 107 to 109 degrees.

In 1998 a study conducted by researchers at Johns Hopkins Medical Center and funded by the National Institute of Mental Health revealed that habitual MDMA abusers suffer long-term neurological damage. The study indicates that recreational MDMA users may be in danger of developing permanent brain damage that might manifest itself in the form of depression, anxiety, memory loss, or neuro-psychiatric disorder.

In addition, there have been numerous major scientific studies published in peer reviewed journals which have shown significant impairments in memory and learning in individuals who have ingested MDMA. Combined with the knowledge that all of these drugs are clandestinely produced in unsanitary laboratories which result in uncontrolled purity, the threat to public health and safety is immense.

The Drug Abuse Warning Network (DAWN) estimates that nationwide hospital emergency room mentions for MDMA rose sharply from 637 in 1997 to 5,542 in 2001. Caucasian teenagers and young adults have been the primary users of MDMA, and this trend is reflected in the DAWN emergency room reporting data. In 2001, 77 percent of the 5,542 MDMA emergency room mentions were attributed to patients age 25 and under.

MDMA Traffickers: Merchants of Death

MDMA is synthetically manufactured in clandestine laboratories predominately in Western Europe in the Netherlands and Belgium, which produce the vast majority of the MDMA consumed worldwide. A typical clandestine laboratory is capable of producing 20 - 30 kilograms of MDMA per day, with one kilogram of MDMA producing approximately 7,000 tablets. Dutch Police reported the seizure of one laboratory capable of producing approximately 100 kilograms of MDMA per day.

Most often, MDMA consumed in the United States is manufactured by Dutch chemists, and transported or distributed by various factions of Israeli and Russian

Organized Crime groups. These groups recruit and utilize American, Israeli and western European nationals as couriers. Couriers can smuggle 2 to 5 kilograms on their person, and 10 kilograms of MDMA in specially designed luggage. In addition to the use of couriers, these organizations commonly exploit commercial mail services to arrange delivery of their merchandise.

The drug trafficking organizations involved in MDMA distribution are brought together by the enormous profit realized in these ventures. Although estimates vary, the cost of producing one MDMA tablet is between $.50 - $1.00. The wholesale price for MDMA tablets range from $1.00-$2.00, contingent on the volume purchased. Once the MDMA reaches the United States, a domestic cell distributor will charge from $6 to $12 per tablet. The MDMA retailer, in turn, will distribute the MDMA for $20 to $30 per tablet.

MDMA traffickers utilize major airports in Europe as transshipment points for MDMA destined to the United States. Los Angeles, New York, and Miami are currently the major "gateway cities" for the influx of MDMA. These three cities reflect the greatest number of arrests and seizures of MDMA within our borders. The largest MDMA seizure in the United States occurred in Los Angeles, California, where DEA and US Customs seized over 700 pounds. Because of increased law enforcement awareness, Israeli traffickers are adjusting their routes and modes of transportation in order to circumvent detection and interdiction by law enforcement officials. These adjustments include a shift in transportation routes from these three "gateway cities" to other ports of entry in the United States.

Although Israeli and Russian MDMA trafficking organizations dominate the MDMA market in the United States, other drug trafficking organizations based in Colombia, the Dominican Republic, Asia, and Mexico have entered MDMA trade. As ecstasy proves more profitable and as law enforcement pressures force the traffickers to re-group, the U.S. MDMA trade will become increasingly diverse.

Europe will most likely remain the primary source region for MDMA, at least, in the near term. Dominican and/or Colombian nationals smuggling cocaine to Europe have exchanged their cocaine for MDMA pills, a significant quantity of which will be destined for U.S. cities. However, it appears, at least for now, that MDMA production is securely entrenched in Europe.

MDMA production also appears to be gaining a foothold in Asia and Australia. Indonesia authorities recently seized a large-scale MDMA laboratory in Jakarta and over 300 pounds of MDMA. Given the ready availability of precursor chemicals in Asia, it is possible that Asian production of MDMA will increase in the future.

Raves: "Dancing in Darkness" and Related Club Drugs

Club drugs have become an integral part of the rave scene. Raves gained popularity in Europe in the 1980s and appeared in the United States during the late 1980s and early 1990s. Raves are all night dance parties driven by synthesized "techno", "industrial" or other forms of pulsating music. Named "Drug Taking Festivals" by police, raves are typically held in warehouses, clubs, fields, or any other location that can accommodate a large number of people. The open distribution of MDMA and other club drugs has become commonplace at many of these venues.

Raves are organized, promoted, and financed by local and national enterprises that advertise through word of mouth, fliers, posters, telephone, radio, and the Internet. In fact, many raves are advertised as "drug and alcohol-free" in order to give partygoers and parents a false sense of security. Typically, ravers are between 12 and 25 years old, come from middle to upper-middle class economic backgrounds and from a wide variety of ethnic and national identities.

GHB/GBL

GHB (gamma hydroxybutyrate), a central nervous system depressant, was banned by the FDA for sale as a dietary supplement in 1990. In February 2000, Congress passed the Hillory J. Farias and Samantha Reid Date-Rape Prohibition Act of 2000. (PL106-172). For purposes of law enforcement, as opposed to regulatory controls for FDA-approved drug products containing GHB, this legislation makes illicit GHB a Schedule I drug under the Controlled Substance Act (CSA).

GHB generates feelings of euphoria and intoxication. It is often combined in a carbonated, alcohol, or health food drink, and is reportedly popular among adolescents and young adults attending raves and nightclubs. At lower doses, GHB causes drowsiness, nausea, and visual disturbances. At higher dosages, unconsciousness, seizures, severe respiratory depression, and coma can occur.

GHB has been used in the commission of sexual assaults because it renders the victim incapable of resisting, and may cause memory problems that could complicate case prosecution. In 2000, DEA documented 71 GHB related deaths. GHB recipes are accessible over the Internet; the drug is simple to manufacture, and can be made in a bathtub or even a Pyrex baking dish. DEA, along with state and local law enforcement agencies, seized 17 GHB laboratories in 2000, 10 of which were located in California.

In 1994, there were 55 emergency room admissions nationwide related to GHB. In 2000, there were 4,969 GHB emergency room admissions. Since 1990, DEA has documented over 12,600 overdoses and law enforcement encounters.

GBL (gamma butyrolactone) and 1,4-BD (1,4-butanediol) analogs of GHB, are also abused at raves. GBL and 1,4-BD are chemicals used in many industrial cleaners and have also been marketed as health supplements. GBL and 1,4-BD are synthesized by

the body to produce GHB. One 55-gallon drum yields 240,000 capfuls of GHB. One capful sells for $8.00, potentially yielding 1.9 million dollars per 55-gallon drum.

Ketamine

Ketamine, another popular drug in the rave scene, is a Schedule III controlled substance approved for both veterinarian and human use. Ketamine can be injected, applied to smokable material, or consumed in drinks. Veterinarians primarily use Ketamine as an anesthetic; it causes intoxication and memory loss. Ketamine is also known as a "date rape drug" because it causes temporary memory loss and leaves victims in a state of helplessness.

Legislative Mandates

In an effort to stop the eruption of club drug related sexual assaults, The Hillory J. Farias and Samantha Reid Date-Rape Prevention Drug Act of 2000 contained several statutory requirements for DEA regarding GHB, Ketamine, and other controlled substances. DEA established the Dangerous Drugs Unit within the Office of Domestic Operations Section at DEA Headquarters that specifically addresses the abuse and trafficking of GHB and other controlled substances. The Dangerous Drugs Unit provides management, funding, guidance, and support to domestic and foreign investigations that target organizations and individuals involved in the manufacture and distribution of club drugs and investigations concerning the use of controlled substances in the facilitation of sexual assault. This unit also provides assistance to field investigations targeting promoters of rave events that condone drug distribution and use.

In addition, DEA has formed an Evaluation Section as part of the Dangerous Drugs Unit to monitor and assess the abuse of and trafficking in GHB, Ketamine, and other designer or club drugs whose use has been associated with sexual assault. This section continuously reviews scientific and medical literature for threats to human health and welfare posed by these club drugs. Based on their findings and in an effort to protect the public, DEA published a notice of intent to place the following emerging club drugs into Schedule I of the Controlled Substance Act (CSA): Benzlpiperazine (BZP), Triflourmethylphenylpiperazine (TFMPP) and 2,5-Dimethoxy-4-(n)-Propylthiophenethylamine (2C-T-7/ Tripstasy). All three of these formerly legal drugs had been marketed on the Internet as legal alternatives to MDMA, and 2C-T-7 has caused several deaths in the U.S.

Domestic Enforcement Initiatives

DEA offices nationwide report a significant escalation in MDMA seizures from 1997 to 2001. In 2001, the DEA seized approximately 9.5 million dosage units of MDMA in the United States compared to 661,702 dosage units in 1997. Since 1998, the number of DEA domestic arrests for MDMA-related violations has increased every year. The number of MDMA arrests increased 24 percent from 1,538 in 2000 to 1,908 in 2001.

In August 2001, DEA culminated Operation Green Clover with 28 arrests and the seizure of 85,000 tablets of MDMA and $1.36 million in U.S. currency. Operation Green Clover called public attention to the extreme dangers of abusing club drugs due to the tragic death of sixteen-year-old Brittney Chambers, who died as a result of taking MDMA.

During that same month, DEA concluded a two year investigation that was coordinated through the Special Operations Division, Operation Rave I and II, which resulted in the arrest of 247 individuals, the seizure of 7.5 million tablets of MDMA, $2.7 million in U.S. currency and $1.9 million in other assets. This investigation was a cooperative effort with the U.S. domestic law enforcement agencies, the Israeli National Police, the German National Police and numerous European law enforcement agencies.

In October 2001, DEA successfully completed Operation Triple X, which dismantled a major methamphetamine and MDMA drug lab in Escondido, California. During the two-day enforcement operation, 20 people were arrested for their participation in the trafficking organization that was capable of producing millions of MDMA tablets.

On September 10, 2002, DEA and the Jacksonville Sheriff's Office arrested three individuals from French Guyana at the Greyhound bus station subsequent to the seizure of approximately 127 pounds of MDMA, secured in suitcases.

On August 28, 2002, a federal grand jury in Houston, Texas returned two indictments charging 34 individuals and two corporations with a variety of drug and money laundering offenses. This organization was responsible for the distribution of more than one million ecstasy tablets in Houston and elsewhere. On September 17, 2002, in a multinational enforcement effort, arrests were initiated regarding targets of this investigation. Two principle targets of this investigation, Sarabjeet and Amrik Singh, were charged with operating a Continuing Criminal Enterprise. The indictment seeks forfeiture action against 7 million dollars in assets, including two nightclubs and three residences in the Houston area.

International Enforcement Initiatives

In June 2002, I traveled to the Netherlands to meet with Dutch police officials. During this meeting, we discussed their efforts to address the synthetic drug problem in their country. Five years ago, the Dutch Police initiated the Synthetic Drug Unit (SDU) pilot project, created to target MDMA and synthetic drug organizations. An evaluation of the SDU was completed last year and due to the need, the SDU was expanded and six teams, comprised of 15-25 Dutch police, were added. These teams have been assigned to different areas of responsibilities within the Netherlands. The SDU also was allocated approximately $90 million, over five years, to fund synthetic drug enforcement, as well as to improve international cooperation.

DEA enforcement operations with host countries are substantial and have resulted in the seizure of millions of dosage units of MDMA destined for the U.S. In February 2002, Dutch authorities, while executing a search warrant in Ankeveen, Netherlands, seized approximately 350 kilograms of MDMA powder, a tableting machine and 80 different die-cast stamps. Intelligence information indicated this MDMA was intended for distribution in the U.S. In addition, over the last four-month period, DEA and the Brussels Country Office have seized approximately 4 million MDMA tablets, also destine for the U.S.

During September of 2002, DEA agents met with European law enforcement agencies in Berlin, Germany to coordinate worldwide investigative activity related to the international trafficking of MDMA. Each participating agency prepared a list of goals and targets that was used to identify members operating for the purpose of disrupting and dismantling these drug trafficking organizations. DEA has also implemented plans to reallocate resources to the Netherlands to better confront the MDMA threat.

DEA is currently conducting a joint investigation with German Customs concerning Dominican MDMA trafficking organizations, which are smuggling MDMA from the Netherlands through Germany and other European countries into the United States. To date, this investigation has resulted in the arrest of over 190 couriers in Germany, Luxembourg, Belgium, Mexico, Switzerland, the Netherlands and the United States.

In July of 2002, two large scale MDMA traffickers, Meir Ben David and Josef Levi, were extradited from Israel as a result of being charged in Miami for Conspiracy to Import MDMA and Possession with Intent to Distribute MDMA. This marked the first extradition of any Israeli citizen to the United States for a drug crime.

Initiatives Against Rave Promoters

The State Palace Theater Investigation, which was conducted by the DEA New Orleans Division in conjunction with the New Orleans Police Department and the U.S. Attorney's Office in New Orleans, serves as an excellent model of the resourcefulness of law enforcement in addressing the threat of club drugs.

During the course of this investigation, DEA agents learned that, over the past two years, 400 to 500 teenagers and young adults had been treated at local emergency rooms for overdose related illnesses, following their attendance at rave events hosted by the State Palace Theater.

As a result of the investigation, the company, in a plea agreement, agreed to pay a $100,000 fine. Perhaps most significant is the fact that, since the completion of the operation, club drug related overdoses in New Orleans have dropped 90%, with ecstasy overdoses disappearing altogether. This statistic clearly shows a very strong correlation between rave activity and club drug overdoses resulting in emergency room visits.

Beginning in February 2001, DEA in Idaho and local law enforcement conducted a lengthy investigation concerning the sale of MDMA in the Boise, Idaho area. This investigation lead to the arrest over 23 individuals for the distribution of MDMA, Ketamine, and other club drugs. Rave promoter Jaime Collins pleaded guilty to the "crack house statute" in this investigation for a rave he sponsored during 2001. On May 17, 2002, five additional defendants were indicted in this case for various federal drug violations.

DEA's Community Outreach Initiatives

DEA began to focus national attention on the MDMA and club drugs in 2000, when the agency hosted the *International Conference on Ecstasy and Club Drugs* in partnership with approximately 300 officials from domestic and foreign law enforcement, judicial, chemical, prevention and treatment communities. During the conference, several demand reduction objectives were developed which have been institutionalized by DEA. These objectives include:

- Providing accurate, complete, and current information on the scientific findings and medical effects of club drugs on the human body;
- Working with local, state, and other federal agencies and nonprofit organizations in an effort to advance drug education and prevention;
- Enhancing parental knowledge of raves and club drugs and engage their active participation in education and prevention of drug abuse;
- Educating high school and college students on the realities of raves and the effects of club drugs on the human body.

In addition, DEA recently hosted a series of *Regional Club Drug Conferences* in local communities as a way to develop effective enforcement and prevention strategies by bringing together federal, state, and local experts already familiar with the club drug issue. Similar regional conferences were also held in Chicago, Illinois, and San Diego, California.

In May of this year, DEA partnered with the National Foundation of Women Legislators (NFWL) in a common cause: educating the American public about the dangers of Club Drugs such as MDMA and GHB. Robin Read, President and CEO of the NFWL called the partnership, "one of the most innovative programs the NFWL has embarked upon in its 64 year history."

During August of 2002, DEA held it's first ever training class on drug-facilitated sexual assault, with more planned for the near future. DEA has also prepared training aides concerning drug-facilitated sexual assault for law enforcement in the field. In addition, the Department of Justice has developed and posted on the Federal Bureau of Investigations (FBI) intranet forensic training material to enhance the collection and testing of evidence for these cases. This material is accessible to thousands of federal, state, and local law enforcement officers.

From September 25-27, 2002, DEA's Denver Field Division will host the Rocky Mountain Club Drug Conference in Fort Collins, Colorado. The goal of the conference is to bring together law enforcement personnel, prevention specialists/coalitions, and treatment professionals for a comprehensive conference focusing on club drugs. Emphasis will be placed on community collaboration, as well as issues specific to prevention, treatment, and law enforcement professionals. The conference will provide accurate, up-to-date information and encourage community-wide collaboration, to develop a community response to the serious issue of club drugs.

Conclusion

Club drug trafficking and abuse and the associated horrific effects that accompany the abuse and distribution of these drugs continue to be a priority for the Drug Enforcement Administration. DEA will continue to work with legislators, educators, prevention specialists, community action groups, and law enforcement to raise awareness and educate America's youth about the dangers of club drugs and all illegal drugs. In addition, DEA will pursue domestic and international MDMA and other club trafficking organizations to protect America's borders from the horrors of these debilitating drugs.

Again, I would like to thank the Committee for the opportunity to testify today and I would be happy to answer any questions at this time.

Mr. SOUDER. Thank you very much.

Dr. Hanson.

Dr. HANSON. Chairman Souder and distinguished members of the subcommittee, I want to thank you for the opportunity to come and share with you some of the latest scientific findings about MDMA or ecstasy. I am Dr. Glen Hanson. I am the Acting Director of the National Institute on Drug Abuse. This is a component of the National Institutes of Health.

The timing of this hearing is particularly relevant given some of the new data that has been released by SAMSHA, which you referred to, and data from NIDA as well that MDMA continues to be a very popular drug especially among students and young adults and it continues to attract new users. The initiation of the MDMA use has been rising steadily since the early 1990's and currently more than 8 million young people have used MDMA sometime during their lifetime.

As you mentioned, the demographics of MDMA use is changing and this is very disturbing. New populations are starting to use it. It is being used beyond the rave scene or rave environment. It is being used on a daily basis and being used in homes and in other settings. This indicates a process of dependence and addiction that goes beyond just recreational use.

Despite what some of its users, some of the public media, and, as you mentioned, even some researchers suggest, 3,4-methylenedioxymethamphetamine, or "ecstasy," clearly has substantial risks associated with its use. There is a large body of scientific evidence to support this. MDMA is not benign and it is not a harmless drug. The research demonstrates that MDMA can potentially cause serious short-and long-term physiological and psychological consequences. The overwhelming message of a conference which we held last year from some of the leading scientists in MDMA research is that MDMA can be extremely dangerous. There are some individuals where even a single exposure can cause serious consequences, and on occasion has even caused death. Repeated use of MDMA, moderate or to intense use, has been shown to cause damage to critical brain cells which can affect memory and other cognitive functions. These effects have been demonstrated very clearly in laboratory animals over the last 10 to 15 years and are being confirmed in human studies as well.

Research shows that drugs sold to individuals as ecstasy often times contain more substances than just ecstasy. It is not unusual to find other potentially harmful drugs included, such as methamphetamine, cocaine, ephedrine, dextromethorphan, an over-the-counter cough suppressant, DCP, Ketamine, LSD, etc. The fact that so many of these tablets are really drug combinations makes the problem even more difficult and more complex to deal with in terms of treatment as well as prevention.

MDMA is a unique drug pharmacologically. It does have characteristics of both stimulants as well as hallucinogens. As was mentioned, its acute effects last for hours, depending on the dosage, and users report distorted time perception as well as enhanced sensory input while under its influence. The stimulant properties can cause substantial cardiovascular stimulation. It can elevate heart rate, it can increase blood pressure, it can cause arrhythmias in the

heart, it can disabled the body's ability to regulate its own temperature which can be very serious, especially in an environment such as a rave or a club where it is very warm and engaging in strenuous activity for extended periods of time can result in life-threatening hyperthermia or elevated body temperature. It can also cause serious dehydration, hypertension, and even kidney and heart failure in susceptible people.

Like other stimulants, MDMA has the potential to cause addiction. This has been an issue of some discussion in the past. Recently, a study demonstrated that the majority of users of ecstasy meet the diagnostic criteria for abuse and dependance. And this goes back to the issue of a changing demographics and changing patterns of use. We are seeing more intense and more frequent use which suggests these addictive patterns.

The brain's mechanisms whereby MDMA exerts its effect are critical to understanding both its short-and long-term consequences. And without getting too complicated or sophisticated, let me just say that MDMA is known to cause dramatic effects on a brain chemical called serotonin. Serotonin is a critical messenger molecule that brain cells use to exert their effects and send messages. It is important in exerting effects such as sleep, emotion, mood, memory, pain, and appetite. Moderate to high MDMA use depletes the brain of its serotonin, it causes free radical production, and free radicals are very destructive molecules that can damage tissue and cells. So it is clear that MDMA has the capacity and the properties of killing brain cells under certain kinds of conditions.

We do not know completely to what extent the brain can recovery from this damage. This is still an active area of investigation by scientists. But you can see in some animal studies, and that is shown on this poster, this researcher in this study looked at monkeys or nonhuman primates. They administered the drug twice a day for 4 days, and then they observed for a period of a couple of weeks, and then 7 years. The white squiggly lines represent brain cells that have the serotonin, that chemical messenger, in them. You can see on the left the concentration is fairly high. But on the middle panel, most of that has been wiped out in this particular brain region. After 7 years, there is some recovery but it is not returned to its normal levels. This is a monkey, this is a nonhuman, but we see a similar pattern in other laboratory animals. We understand the mechanism underlying why this happens and it is of great concern to us that some similar things may be happening in humans that are using moderate to high doses of this drug.

In closing, I would like to say that as someone who has spent over 15 years of my own scientific research career studying the pharmacology and neurotoxic effects of psycho-stimulants, and that includes MDMA or ecstasy, I am convinced from my own personal research and the research of my colleagues that moderate use of MDMA can damage brain cells, and likely has significant consequences on brain functions and on behavior.

Thank you very much. I will be happy to respond to any questions you might have.

[The prepared statement of Mr. Hanson follows:]

Testimony
Before the Subcommittee on Criminal Justice, Drug Policy and Human Resources
Committee on Government Reform
United States House of Representatives

Research on MDMA

Statement of
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Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to present scientific findings about Ecstasy or MDMA. I am Dr. Glen Hanson, the Acting Director of the National Institute on Drug Abuse (NIDA), a component of the National Institutes of Health.

As NIH is the world's leading supporter of research on the health aspects of all drugs of abuse, I would like to share with you today the latest scientific findings about MDMA and the impact it can have on the health and well-being of individuals and communities.

Let me begin by stating that there is substantial scientific evidence that proves that 3,4-methylenedioxymethamphetamine, which is frequently referred to by the acronym MDMA and known on the street as "Ecstasy," has substantial risk associated with its use. It is not benign, like some of its users and even a very small minority of researchers have proclaimed. MDMA can produce both short- and long-term physiological and psychological consequences that can be detrimental to an individual's health. There is accumulating animal and human data suggesting that chronic abuse may produce long-lasting neurotoxic effects in the brain.

Pharmacologically, MDMA has both stimulant and hallucinogenic properties. While MDMA rarely causes overt hallucinations, many people report distorted time and exaggerated sensory perception while under the influence of the drug. It also causes an amphetamine-like hyperactivity and euphoria in people, and like other stimulants, it appears to have the ability to cause addiction. A recent NIDA-supported study in *Human Psychopharmacology* found that in

173 adolescents and young adults, of the 52 users who had reported using MDMA, almost 60 percent met the diagnostic criteria for abuse and dependence, and 43 percent met the criteria for MDMA dependence alone.

Use of MDMA increases heart rate, blood pressure and can disable the body's ability to regulate its own temperature. Because of its stimulant properties, when it is used in club or dance settings, it stimulates users to dance vigorously for extended periods, but can also lead to dangerous rises in body temperature, referred to as hyperthermia, as well as dehydration, hypertension, and even heart or kidney failure in particularly susceptible people.

MDMA is typically available in capsule or tablet form and is usually taken orally, although there are documented cases suggesting that more and more frequently it is being administered by other routes, including injection and snorting. MDMA's acute effects typically last from three to six hours depending on the dosage, with the reported average dose of MDMA consumed by a typical user being between one and two tablets, with each containing approximately 60-120 mg of MDMA. However, much higher doses of five tablets and greater are not unusual. MDMA appears to be well absorbed from the gastrointestinal tract, and after administration peak levels are reached in about an hour.

It is known that drugs that are sold to individuals as "Ecstasy" tablets frequently contain not only MDMA, but other drugs or drug combinations that can be harmful. Adulterants found in MDMA tablets purchased on the street by researchers include methamphetamine, caffeine, the cough suppressant dextromethorphan, an over the counter cough suppressant that has PCP-like

effects at high doses, the diet drug ephedrine, and cocaine. Also, like with other drugs of abuse, MDMA is rarely used alone. It is not uncommon for users to mix MDMA with alcohol, Viagra, or GHB or to "bump" and take sequential doses of a drug or drugs when the initial dose begins to fade. This has been confirmed by both treatment reports and medical examiner reports. Because of these drug combinations, it is difficult to anticipate with certainty all the potential medical consequences that can result from the use of MDMA. These drug combinations can also make it challenging to determine the precise role of MDMA in adverse reactions in recreational users.

MDMA in its true form works in the brain by increasing the activity levels of at least three neurotransmitters (the chemical messengers of brain cells): serotonin, dopamine, and norepinephrine. Like amphetamines, MDMA causes these neurotransmitters to be released from their storage sites in neurons resulting in increased brain activity. Compared to the very potent stimulant, methamphetamine, MDMA causes greater serotonin release and somewhat lesser dopamine release. Serotonin is a neurotransmitter that plays an important role in regulation of mood, sleep, pain, emotion, appetite, and other behaviors. By releasing large amounts of serotonin and also interfering with its synthesis, MDMA causes the brain to become significantly depleted of this important neurotransmitter. As a result, it takes the human brain time to rebuild its serotonin levels. For people who take MDMA at moderate to high doses, depletion of serotonin may be long-term. These persistent deficits in serotonin are likely responsible for many of the persistent behavioral effects that the user experiences.

There is a growing body of evidence that associates this serotonin loss in heavy MDMA users to confusion, depression, sleep problems, persistent elevation of anxiety, aggressive and impulsive behavior and selective impairment of some working memory and attention processes.

I will quickly highlight one study that demonstrates how MDMA has been shown to affect impulsivity. We know that many drugs of abuse can interfere with judgment or reduce inhibitions about risk taking behaviors, and MDMA is no exception. For example, it can make an individual more vulnerable to risky sexual behavior, increasing the chance of contracting HIV or other sexually transmitted diseases. We also know from new research that current and former users of MDMA have dramatically higher measures of psychopathology such as impulsivity than nonusers. In a recent study, researchers compared four groups: current MDMA users, former MDMA users who had abstained from using the drug for an average of 2 years, polydrug users who had never taken MDMA, and individuals who reportedly never used drugs. Both current and former MDMA users exhibited higher measures of psychopathology and impulsivity than non-users, and both groups also exhibited impaired working memory and recall performance compared with non-users, although only former users exhibited impaired delayed recall compared with polydrug users. These data suggest that psychological problems associated with heavy MDMA use often are not readily reversed even by prolonged abstinence.

A number of other studies using standardized tests of mental abilities have consistently shown that repeated MDMA exposure is associated with significant impairments in visual and verbal memory.

There is also ample evidence to show that MDMA damages brain cells. We know that even one dose of MDMA (10 mg/kg in rats) has the ability to decrease serotonin levels for up to 2 weeks. We are not certain if the brain has the full capacity to recover from MDMA, as I will discuss in findings depicted in Figure 1. The first panel in the figure shows a normal monkey brain. The monkeys were given 5 mg/kg of MDMA twice a day for four days. The researchers observed them two weeks, and then seven years, after the MDMA was administered. The middle section shows that two weeks after MDMA was given, there were pronounced reductions (83-95%) in serotonin axon density in all areas of the cerebral cortex. The last section shows that seven years after MDMA was given, there is still significant loss of serotonin fibers, though there appears to be some recovery. Investigators are trying to determine the relevance of such findings to humans and their functional significance, but already through the use of brain imaging technology, research has suggested that human MDMA abusers may have fewer serotonin-containing neuronal processes in the brain than non-users.

Despite what we have come to know about the detrimental consequences of this drug, there are increasing numbers of students and young adults who continue to use MDMA.

Several of our Nation's top monitoring mechanisms, including Monitoring the Future (MTF), NIDA's long-standing national survey of drug use among 8th, 10th and 12th graders, and our Community Epidemiology Work Group (CEWG), as well as recently released findings from the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Household Survey on Drug Abuse and its Drug Abuse Warning Network (DAWN) Survey, report that MDMA continues to be a popular drug, particularly among young people.

Findings concerning MDMA use released earlier this month from the 2001 SAMHSA National Household Survey on Drug Abuse are not very encouraging. Initiation of MDMA use has been rising steadily since 1992. The survey reports that in 2001, 8.1 million Americans aged 12 or older were lifetime users of MDMA, up from 6.5 million in 2000. This means that around 1.6 million more people reported having tried MDMA at least once in their lifetime in 2001 than the previous year. Over three-quarters of a million people (786,000) reported in 2001 that they had used MDMA in the 30 days prior to the survey interview (current use).

NIDA's Monitoring the Future Study of drug abuse among adolescents in middle and high schools across the U.S. showed that in 2001, 5 percent of 8th-graders, 8 percent of 10th-graders, and 12 percent of 12th-graders had taken MDMA at least once in their lives. Although this does not represent a dramatic rise from the previous year, the rates are alarmingly high and

have not declined following sizeable increases that started in 1998 among 10th and 12th graders, and in 1999 among 8th graders.

The encouraging news is that the proportion of 12th-graders surveyed who said that there is a great risk associated with experimenting with MDMA jumped from 38 percent in 2000 to 46 percent in 2001. This suggests that efforts to educate adolescents about the dangers of MDMA may be working and hopefully will have a positive effect on drug using behavior. Unfortunately, at the same time the perceived availability of MDMA increased sharply, the proportion of 12th-graders who thought they could get MDMA "fairly" or "very" easily jumped from 40 percent in 1999, to 51 percent in 2000, to 61 percent in 2001.

Significant MDMA use by students is occurring in more and more of the nation's schools and extends to many demographic subgroups. Among 12th-graders, for example, 10 percent of both Hispanic and white students reported using MDMA in the 12 months prior to the survey, compared to only 2 percent of African-Americans.

Ethnographic data from NIDA's CEWG released in June 2002 showed that MDMA is spreading beyond the young white populations frequenting "raves." For example, in Chicago, MDMA use has reportedly moved beyond the rave scene and can be found in most mainstream dance clubs and many house parties. Philadelphia also reports that MDMA demographics are

changing, with MDMA being used increasingly by African-Americans and Hispanics, and by people in their thirties, not just teens. The group of epidemiologists, public health officials, and researchers who monitor emerging drug trends report that MDMA indicators of use continue to rise in almost all of the CEWG areas.

Also, new data from the 2001 Drug Abuse Warning Network released by SAMHSA in August showed that although there were no significant changes in emergency room mentions of MDMA from 2000 to 2001, the high incidence of MDMA mentions (5,542) in 2001 still reflects a disturbing pattern.

NIDA will continue to monitor the changing patterns and trends of MDMA and other drugs of abuse as part of its comprehensive research portfolio. NIDA will also continue to inform the public and policy makers about new science findings that will help us to understand the short- and long-term effects of this drug. It is hoped that such information will help to protect communities against the harmful consequences of this drug,

In closing, I would like to say that as someone who has spent more than 15 years of his research career examining the pharmacological and neurotoxic effects of psychostimulants, particularly MDMA, I am quite convinced that there is ample scientific evidence to show that MDMA damages brain cells, and I can confidently testify that MDMA is not a benign drug.

Thank you again for inviting the National Institute on Drug Abuse to be a part of this important subject. I will be happy to respond to any questions you may have.

Mr. SOUDER. I thank you both for your powerful testimony.

We have been joined by Congressman Davis of Illinois and Congresswoman Davis of Virginia. I will start out with some questions here under the 5-minute rule.

First, Administrator Hutchinson, in trying to understand the production of ecstasy in the Netherlands and Belgium, could you give a little more why it would be concentrated there and why it has not dispersed more, why we do not have more production in the United States, and whether you think that will change.

Mr. HUTCHINSON. One of the reasons it has not occurred in the United States in terms of the labs that would produce MDMA is because we have very strict regulation of the precursor chemicals that go into it. We have strong controls that has diminished that capability. In addition, the pill presses that are used to manufacture the MDMA, that is not readily available for those purposes yet here in the United States. It is much more difficult here.

In regards to the Netherlands, you have a combination of factors. You have, one, a law enforcement structure that has not been historically strong. You have a permissive society when it comes to drug use. You also have chemists who have congregated there that have developed this industry. So a combination of those factors. One of the chemicals that is used as a precursor or to make MDMA is PMK, and that comes primarily out of China. And to give you an illustration of the problem they face there, they do not have an exchange of information for these precursor chemicals coming from China because they are concerned about the human rights violations in China and will not have any information exchange. So we are having to act as an intermediary on that.

So, it is a very slow process engaging and pushing the law enforcement community there to get a handle on this. Hopefully, their synthetic drug unit will be a step in the right direction.

Mr. SOUDER. Is the government of Belgium becoming more aggressive too, or is this relatively new there as compared to Holland?

Mr. HUTCHINSON. I think it is a spill-over effect from what we see in Holland. Clearly, Europe, in particular the Netherlands, realizes that they have a problem with ecstasy production. It is not considered a soft drug there. They have not moved toward decriminalization of it in any way. They are very focused on the problem that they are right now, investing a substantial amount of money, I believe it is $90 million, toward enforcement activities. So hopefully that will change.

Mr. SOUDER. There has been a lot of times in the American media this kind of romance of how Holland's non-harmful drug policies actually not only have spilled into the United States and around the world, they have gone into Belgium where they did not have those policies and undermined their laws, which is partly why there is a new government in Holland. Do you get the impression that the new leadership is more committed to trying to tackle these problems?

Mr. HUTCHINSON. Yes, I do. I think we have to wait and see but I think there is potential for a shift in drug policy. And certainly on the enforcement side, I believe that they have been cooperative. I hope that they will be more cooperative.

Mr. SOUDER. You had a reference in your written testimony to Indonesia and them increasing as a potential production point. Did that seem to be headed toward the United States, or is there a growing market in Asia?

Mr. HUTCHINSON. There is a growing market in Asia. Right now there is limited nexus between Indonesia and the United States. But it is something that we are watching very closely because that would open up a whole new arena in terms of production.

Mr. SOUDER. Thank you. I have plenty of additional questions but I will yield at this point to Mr. Cummings.

Mr. CUMMINGS. Thank you very much, Mr. Chairman.

Administrator Hutchinson, let me ask you this. Do you find, the DEA, when you talk about some arrests that have been made, do you find that the people who are dealing in ecstasy also deal in other drugs or is it pretty much zeroed in on and specialized just in ecstasy? Are you finding any connections when you arrest these people?

Mr. HUTCHINSON. Yes. In a number of instances today and yesterday, as our agents made arrests targeting the GHB and those type of chemicals, we also found methamphetamine in substantial quantities, we found other drugs at these sites. It is not always that case. So some individuals believe this is a niche market for them and they are engaged in this network of club drugs. Others are looking for any drug that brings a profit and so you will see them shifting. But, yes, in the arrests that we accomplished in this operation, in many instances we found other drugs than simply these club drugs.

Mr. CUMMINGS. Is there any reason why ecstasy started off as a so-called club drug or a rave drug as opposed to drugs sold on the corner of inner-city streets? I mean, starting out, was it the cost, the easy way to distribute them? Do you have any theory on that?

Mr. HUTCHINSON. Well, I think it was a marketing technique. That is where the suppliers targeted as having a ready audience of teenagers, of people who were engaging in some very frenetic activity and that is a good market for the sale of the MDMA. And so it was targeted there. But it did not take long for it to expand way beyond that. Many of the tragic cases that we see today, from Brittany Chambers to others, it was MDMA that was purchased not at a rave scene but it was on the street or through some other associate. So I think we make a mistake if we only talk about MDMA in terms of the party scene. As you said, that is where it started and had its first impact, but it has spread far beyond that.

Mr. CUMMINGS. And what are we doing to address that spread? Do not get me wrong, I am not trying to minimize the fact that it is out there anywhere, but I am just wondering what are we doing to try to make sure it does not continue to spread all over the place? And I also want you to talk about the money involved. I mean, this is a phenomenal amount of money when you broke it down to how much this stuff yields. And what makes you think that when you are dealing with that kind of money that folks will not find a way. It sounds like a person could become a millionaire almost overnight.

Mr. HUTCHINSON. Well, they can. Whenever you can manufacture it for 25 cents and sell it for $25, there is an enormous profit mar-

gin. And drug traffickers that have traditionally been engaged in cocaine may look to this because of the profit margin in it.

You asked what we are doing about it. In each division, we have increased our prosecution effort. If you look, and I would be glad to provide the statistics, but if you look in each division that we have in the DEA, we have targeted more MDMA traffickers, they have become priority targets for us, and we have enhanced our prosecution and efforts.

In addition, we have engaged on the education side. I have personally spoken at club drug conferences where we brought in law enforcement, educators, prevention and treatment individuals focused on the problem of ecstasy. I will be going to Fort Collins, Colorado in a couple of weeks for a similar conference. And so we are doing enforcement side but also the education side. But whenever you are looking at a small pill that can be brought in to a club very easily, it is a law enforcement problem. We can work hard at it, and I mentioned I went to this club scene for an educational and law enforcement purpose.

Mr. CUMMINGS. Were you dressed like you are today?

Mr. HUTCHINSON. No, sir. [Laughter.]

I do not know if it is possible for me at my age to work under cover, but I was trying.

Clearly, there was some effort on the outside for security, even to the point that someone brought in a glass bottle that had eye solution in it and they made them squeeze it in their eye to make sure that it was eye solution and not some other product, and they pat everybody down. But you go inside there and you can identify the transactions. Clearly, drugs are prevalent in this environment. Obviously, with pills that can be easily disguised, hidden very easily, whether it is in a medicine bottle that has other pills or be hidden in a whole host of different ways, it is a difficult law enforcement problem.

We are making extraordinary cases on it and I think that makes a dent. But, clearly, the education aspect is critical.

Mr. CUMMINGS. Thank you.

Mr. SOUDER. Ms. Davis.

Ms. DAVIS OF VIRGINIA. Thank you, Mr. Chairman. I apologize I was not here to hear the testimony, I wanted to hear yours, Asa, but I had another hearing. This is all a learning experience for me. I just went to the Caribbean with the chairman and learned a lot in the countries down there. And I understand that just yesterday I think you busted a lab in Hampton, so I know this hits home in my State.

The only thing that I can tell you is that as the mother of two sons, and I do not really have a question, but as the mother of two sons, I know my older one, the things I found out after the fact, after he turned his life around, really threw me. I think the public just is not aware of the dangers of these little pills.

I appreciate your being here and I appreciate the public hearing, Mr. Chairman, so that we can learn. Anything that I can do to help, I am ready and available. Thank you.

Mr. SOUDER. Thank you. It was amazing, when we were in the Caribbean in Jamaica, the Jamaican trafficking organizations that come up to the United States and the Dominican trafficking organi-

zations, like you stated in your testimony, they link back to Europe. Literally, one of the things that we have not really looked for before is how many of the islands down there are still associated directly with European countries. St. Martens with the Dutch. So if they get Dutch citizenship, they move in and they come in as though they are European rather than other types of visa rules, which would include the Spanish, the Dutch, the Portuguese, the French, and the British. It is a different dynamic because we have European rules working to our South which you can kind of see in the trafficking patterns now coming up when you run into things coming out of Europe as opposed to South America.

Mr. Davis.

Mr. DAVIS OF ILLINOIS. Thank you very much, Mr. Chairman.

Thank you, Mr. Administrator, for the work that you are doing and also for visiting with us in Chicago. We appreciated that and enjoyed it very much.

It seems to me that there are two things that are central if we are to block further proliferation. One, obviously, is to try and prevent the drugs from entering the country. The other is to try and convince people or make them aware of the danger, which requires a tremendous amount of what I call "organized" education. How much of that are you aware of, of what people are doing in different places to try and seriously acquaint young people especially with the dangers of the drug? I am remembering 25–30 years ago and there were other drugs and people who just could not quite believe that there was as much danger. Of course, some of these same people today are still experiencing difficulties from LSD and from all of the hallucinogenic activity in which they were involved. So how much education are we doing that you are aware of?

Mr. HUTCHINSON. Well, it is a vast ocean out there in terms of the American public and teenagers and it takes a lot of people involved to accomplish the education, and it takes some time, and it takes the cooperation of the media. I noted that in Operation Green Clover after the death of Brittany Chambers, the headline the next day in the newspaper was "Tainted Ecstasy Pill Kills Youth." Now there is something wrong with that headline. The implication to every teenager who reads that is that she got a "bad" ecstasy pill and if it were pure ecstasy everything would have been OK. And so a lot of messages out there are important.

I know your next panel is very important. I am pleased that you have called people who have suffered under this in various ways to help tell the story. They are doing great work in the education arena. Parents are the greatest key in this because parents want to do the right thing. But you can go to many Web sites and you get false information that is out there, and then the teens' word of mouth gives you false information. I was talking to my teenage son about a death because of ecstasy in Arkansas and he said the word among kids on the street was that the place was not properly ventilated, they overheated, and they just did not have the right environment.

It is misinformation out there. And so we have to have the schools involved, we have to have the parents critically involved in this. And we are working on it but it is a vast ocean that we have to fill.

Mr. DAVIS OF ILLINOIS. It would just seem to me that if we could convince school districts, colleges and universities, enlist the aid of popular radio personalities, disc jockeys, people who kind of promote parties and places of recreation, that peer influence is probably as great as any kind, and if there could be a peer influence movement coupled with what parents and others could do, perhaps we could get a handle on it.

But I certainly appreciate the kind of research that is taking place, the kind of information that we are gathering, and the work that you and your associates are doing to try and help us get a better handle on it. So I thank you very much.

Mr. SOUDER. I will probably followup with some additional written questions for the record, but I wanted to ask a couple of things of Dr. Hanson and then if you want to provide more detail. In the National Institute for Drug Abuse, Institute for Health, do you have any idea of the current range of dollars we are doing to study impacts of this drug and then other drugs on the human body?

Dr. HANSON. Our total budget approaches $900 million a year to study various aspects of substance abuse. Within that, we have the psycho-stimulants such as methamphetamine, cocaine, and we also have a significant budget that is being spent on the study of ecstasy. We actually started to study ecstasy about 1985 when it was originally scheduled. So this is the second wave of ecstasy problems we have had in this country. And as a researcher, that is when I began to research it, I received a grant from NIDA to study ecstasy. And so there has been a number of researchers who have continued for over a period of 15 years. And we actually know a great deal about how this drug works, what it does, why it causes damage, and its potential long term consequences.

Mr. SOUDER. Has that budget been fairly even in the sense of adjusted dollars, or as we get new drugs that come in, do you switch some of the dollars? We have not had a hearing for a number of years here on the actual drug treatment research side.

Dr. HANSON. We certainly evaluate what the need is. For example, we just recently put out a call for applications on GHB, which is a relatively new phenomenon that has hit the club drug scene. We know very little about this substance so we are trying to enlist the help of scientists to give us a better handle on how GHB works. So there is a case where we have targeted money. We are going out to get additional information.

Ecstasy, we have quite a stable of investigators who have had ongoing research projects looking at ecstasy. And so while we certainly encourage it, we put it as a high priority, we have not done a special announcement calling for a special group of applications for it. But we are clearly very interested in it.

Mr. SOUDER. You raised an incredible complex question both for the prevention and the treatment community about this. I mean, we think of multi-abusers as maybe being alcohol and marijuana or cocaine and marijuana and maybe some alcohol. You threw everything but the kitchen sink and a lot of things under the kitchen sink into the mix. How do you research that, the interactive effects? I mean, we have seen on tobacco these signs that say rat poisoning. You probably had in some of your lists six or eight different types of rat poison and things in the mix of what these kids are

mixing together. How do we look at that and what impact that has on the human body?

Dr. HANSON. It is very difficult to sort out. That is part of the criticism of those who claim that our knowledge of ecstasy really is not legitimate. Because in humans that is the general pattern. It is not very often you find a person who has overdosed on ecstasy alone, it is almost always in combination with other substances. So if this person has serious medical consequences or actually dies, is it the ecstasy that did it, is it the methamphetamine that did it, is it the alcohol that did it, is it the GHB that did it, or is it a combination and interaction of all of those things. Those are difficult studies to do. You cannot do them in humans for obvious reasons. And it becomes more problematic when we do the animal models because the critics say, well, animals do not predict what happens in humans, although that is not true. But that is a criticism.

So, you are right, it is very complex. And it is even harder for people who are doing the treatment in emergency rooms. What do you treat when someone comes in? Do you try to treat the MDMA, the alcohol, the GHB? About all they can end up doing is treating the symptoms and hoping that they can somehow get the thing under control and the person can survive. It is a difficult issue.

Mr. SOUDER. We can all talk about treatment but the treatment is only going to be as good as your research saying what impact it has on the human body and how to treat it.

Dr. HANSON. Right.

Mr. SOUDER. One last question. Do you do research into possible recovery on things? Do you believe that after usage of ecstasy you can—in other words, that is the natural phenomena, but are there treatment methods that give hope for recovery and do you study those types of things too?

Dr. HANSON. There is recovery that occurs. Is this person ever going to go back to where they were before they used the drug? My guess is no, I do not think they ever will.

Mr. SOUDER. Loosely defined, I would not define on that relatively simplistic example much recovery if you are saying there are 10,000 little dots here and 50 of them are back.

Dr. HANSON. Right. This is a fairly high dose. It is not out of the clinical range. We find people that are doing this but it is fairly high. Most people that are moderate users probably are going to be half this or a fourth of this. They will still have the deterioration of that system in the brain but they are likely to have more recovery as well. It is just a basic rule, the less you traumatize the system the greater the chance it will be able to come back on line eventually and restore some of that function. But we are looking into how can you help these people, not only MDMA but methamphetamine is a serious neurotoxin that causes even worse damage than this. How do you get these people so that they can return to normal lives, be functional again, get their cognitive faculties back in line, and go out and have relatively normal experiences in the workplace and in families.

Mr. CUMMINGS. What did you think of the ads, Doctor?

Dr. HANSON. I think that they can form an important part but you need to give them the whole story. This is the story of someone who dies immediately in an environment, in a rave. We do not

know why, probably cardiovascular. Those people that die after a single administration, usually it is a cardiovascular incident that is occurring, it may be a hypothermic incident. So it gives you a sense of the potential risk on individuals. But it is important that everybody understand the level of risk for others, not the 1 out of 100 or 1 out of 1,000. But all those folks that are using it, they have used a tablet or they have used two tablets and they have done it every other weekend and they seem to be able to go back to their normal life, a little bit of a hangover but get back to normal, they need to understand the risk that is there for them as well.

Mr. CUMMINGS. I guess when you see something like this the normal statement is, well, that is not going to happen to me.

Dr. HANSON. Right. That is not me.

Mr. CUMMINGS. Therefore the ad would not have the kind of impact you would hope.

The reason I asked you about the ad is because we have been engaged in trying to make sure that the ad campaign is as effective as it can possibly be. And, certainly, prevention is the key to all of this. I look at the money that this Government spends, I look at the lives that are lost, I look at the parents that are just devastated by seeing this wonderful child that was born 16 years ago now a whole other person. I am just trying to figure out ways that you think, and perhaps this is a better question for the next panel, that you think we can get this word out most effectively and efficiently so that people do not have to go through all of this. This is a lot to go through.

And then you talked a little bit earlier about productivity and the job. I assume a person could be taking this ecstasy every other night or whatever and still go into a classroom and do fine. Is that right?

Dr. HANSON. We do not know that precisely, but I would not say that they are doing fine. I would say that they have probably been compromised. It might be a subtle effect. It may be the difference between taking an exam and getting 95 percent versus taking it and getting 80 percent. If you look at that individual, you will say, oh, 80 percent, they are still doing OK. But they are not doing to their potential. You compromise them in their ability to process complex information, which is a lot of what life is all about. The better your executive function is the better, more successful you are going to be in life. If we compromise that, then your potential has been compromised. And my guess is that is what is happening with the casual user of these kinds of drugs, that you have compromised their potential. They are not going to become institutionalized likely except in extreme cases, but you have just knocked them down a notch from what it is they really could have done and from what they could have accomplished.

Mr. CUMMINGS. Administrator Hutchinson, just one last thing. This whole thing of the ecstasy moving into, say, the inner-city, how do you all come to that conclusion, and to what extent do you see the movement? In other words, I assume this is based upon arrests, what you find during the arrests, research.

Mr. HUTCHINSON. It would be based upon arrests but also on drug availability, the seizures, where they are headed, where the

organizations are marketing. So a whole host of those things. And when I say it is the No. 1 problem of urban youth, I am speaking of where it started in the club drug scene, it expanded to the streets. It is something that rural youth is not immune to, they travel to the cities, that is where parties take place, that is where they can get drugs as well. But the No. 1 problem in rural America is methamphetamine. So what we have in the United States is you have to look at the different geographic centers, what the No. 1 problem is, and there are different drug problems in different areas.

Mr. SOUDER. Would it not also be this tremendous potential to cut price, because if there is this much inflation in the price, it could be a little like cocaine and crack where you came up with variations to drop the price which then gets the addicts among the poor as the education efforts and the parents and the treatment programs hit the suburbs. It is not like we have not watched this pattern.

Mr. HUTCHINSON. Certainly possible.

Mr. SOUDER. Do any of the members have further questions?

I thank both of you for coming. We appreciate your testimony and will followup with some additional questions.

Mr. SOUDER. Would the second panel now come forward. If you will just remain standing, I will give you the oath before you sit down.

[Witnesses sworn.]

Mr. SOUDER. Let the record show that each of the witnesses responded in the affirmative.

I would like to thank you for coming today, for being willing to speak out on this important issue, not only here but in your home areas and around the country. We hope that by sharing your experiences here other Americans will learn, and this will become part of a hearing book to use as we work with various legislation as well. We would like and appreciate if your statements could be within 5 minutes and then we can ask further questions and draw it out and give your more time later.

We will begin with Ms. Kate Patton.

STATEMENTS OF KATE PATTON, KELLEY MCENERY BAKER FOUNDATION; LYNN SMITH; AND DR. TERRY HORTON, MEDICAL DIRECTOR, PHOENIX HOUSE

Ms. PATTON. Good afternoon, Chairman Souder, and other members of the committee. I appreciate your inviting me here today to testify on what has become an ever growing problem in this country—ecstasy abuse.

It has been 2 years and 10 months since I lost my daughter, since I heard the four words that are every parent's worst nightmare, "your child is dead." I lost my daughter to an accidental overdose of ecstasy. But more correctly, I lost Kelley three times to ecstasy; first when she started using it, second when she began to sell it, and third when she died from it. I am here today to put a face on the devastation that ecstasy has on a family.

I saw Kelley take her first breath the day she was born. I gave her her first hug. I was not there for her last breath and I never got to say good-bye to her. I was robbed of hugging her good-bye.

My life is forever changed, as is that of my younger daughter Tori, who lost her only sister to a drug that so many people feel is harmless.

Before Kelley's death I had never heard of club drugs, let alone ecstasy. I now know more about the very drug that took my daughter's life than I ever thought possible. Ecstasy took my daughter but it will not take me. A year ago I started a foundation in her memory, the Kelley McEnery Baker Foundation for the Prevention, Education, and Awareness of Ecstasy Use. I speak to high schools and youth groups to share Kelley's story with the hope that they will learn from her deadly mistakes. I also speak to parents groups and town hall meetings to encourage parents to become what I now call "information junkies" when it comes to knowing about all the drugs that may cross the paths of their children. I mention to them that they go to the grocery store very prepared with their grocery list in hand but are they as prepared to sit down and talk to their children about drugs, something that is as important as their children and something that may kill them?

My goal is to reinform the misinformed and to enlighten those who know nothing. During the past year, I have talked to well over 3,000 kids. I use a power point program but I mostly talk from my heart as a mother who has lost a child to ecstasy and club drugs. I encourage questions and I have plenty of questions of my own. One question that I never fail to ask the kids is how many parents have sat down and talked to them about drugs. Sadly, very few hands are raised. At one particular school I visited I went on to ask if they knew anyone who had overdosed from drugs. Surprisingly, far more hands went up. And when I mention "overdose" it is not necessarily someone who died but someone who has gone to the hospital for overdose. But they shared their stories with me and there were plenty of deaths that they told me about.

I was dumbfounded by what they had told me. It is my experience that there is a huge population of parents who do not talk to their kids about drugs. Perhaps they are unaware of the many harmful drugs that their children are exposed to on a daily basis, or maybe they feel, as many parents do, "my child would never try drugs." I know of what I speak, I was one of those parents and I had to pay the ultimate price for my ignorance.

The time is now to find a way to impress upon parents the urgent importance of becoming knowledgeable about all drugs and sharing that information with their children. Drug awareness and information must start at home. I am proud of the State of Illinois, I wish Mr. Davis was still here, and its lawmakers for taking a hard stance against ecstasy and club drugs by passing House Bill 126. It was a labor of love for me to have been involved in lobbying for it. It is now known as Kelley's Law.

Kelley's Law targets criminals who seek to profit from selling illegal club drugs. It took effect January 1, 2002. People convicted of selling as few as 15 pills and up to 200 doses of ecstasy with intent to distribute will face Class X felony penalties of 6 to 30 years with no chance of parole. It is the toughest law of its kind in the country. Without Kelley's Law a person would have had to sell more than 200 grams, approximately 900 pills, in order to be charged with a Class X felony in Illinois. Before that it was just

a misdemeanor. Chicago DEA supervisor George Karountzos recently told me that he has seen a marked decrease in people wanting to get involved with selling drugs in Illinois because of Kelley's Law.

There is much to be done on so many fronts in order to put a significant dent into the war we have waged against drugs. I believe that our priority needs to be education and awareness, which should start in the home and continue with support from our school system and faith-based organizations such as churches and synagogues. The phrase "it takes a village to raise a child" is a good metaphor in that to be effective drug education must be approached from many different angles and directions. We must learn to accept that drug abuse and addiction is an illness, as is recognized by the AMA. There are many drug offenders that land in jail repeatedly with no help for their illness, they will just land in jail, get out, and land back in jail again. They need to be treated with the help of programs and drug courts. Illinois and Kelley's Law sets a good example that stiffer penalties do work. I feel every State needs to review their drug laws and update them accordingly. This is a bipartisan issue and is of paramount importance in order to help protect every child in this country.

I want to close today as I close all my presentations to the many kids I speak to. I ask for a volunteer and ask them to read a poem that I selected to be read at Kelley's funeral by one of her high school classmates. At one particular school, actually the school that my young daughter goes to high school in Palatine, Illinois, this one young man was in the last row, he was waving his hand, and I felt he really wanted to read the poem. So I called him down and he pulled me aside and said thank you, Mrs. Patton, for selecting me. My mother took ecstasy when she was pregnant with me and I have had problems ever since. That was very telling to me. He said I just feel like I am giving back a little something by reading this poem for you.

The poem is titled "Remember Me."

To the living I am gone.
To the sorrowful, I will never return.
To the angry, I was cheated.
But to the happy, I am at peace.
And to the faithful I have never left.
I cannot be seen, but I can be heard.

So as you stand upon a shore, gazing at a beautiful sea—remember me.

As you look in awe at a mighty forest and its grand majesty—remember me.

As you look upon a flower and admire its simplicity—remember me.

Remember me in your heart, your thoughts and your memories of the times we loved, the times we cried, the times we fought, and the times we laughed.

For if you always think of me,
I will have never gone.

After the poem is read, I ask the kids to look around and think of a friend or a buddy that they are sitting next to and I ask them can you imagine reading that poem at their funeral, having their

mother call you up and reading that poem at your friend's funeral. Or worse yet, can you imagine having one of your friends read that poem at your funeral. The silence is deafening. I am hoping that this exercise drives home the point that drugs cannot only harm them, send them to jail, or, worse yet, kill them. Thus far I feel my point has been very well taken.

I commend you, Chairman Souder and the committee members, for holding this hearing and doing what you can for drug abuse in this country, not only ecstasy but all drug abuse. But as we heard from Director Hutchinson, ecstasy is unfortunately running rampant in our country and I am doing what I can to help. I do not want another mother feeling the way I have had to feel the last 2½ years, and that is why I do what I do.

[The prepared statement of Ms. Patton follows:]

Chairman Souder, I thank you for inviting me here today to testify on what has become an ever growing problem across the country, Ecstasy abuse.

It has been two years and ten months since I was told the four words that re every parents worst nightmare, "your child is dead." I lost my daughter to an accidental overdose of Ecstasy, more correctly I lost Kelley three times to Ecstasy, first when she started using it, secondly when she started selling it and lastly when she died from it. I am here today to put a face to the devastation that Ecstasy can have on a family. The day Kelley was born I saw her take her first breath, I wrapped my arms around her and gave her, her first hug. But I wasn't there for her last breath and I was robbed of hugging her good-bye. My life is forever changed as is that of my young daughter, who lost her only sister to a drug that so many people feel is harmless.

Before the death of Kelley I had never heard of club drugs let along Ecstasy, I now know more about the drug that took my daughter's life than I ever thought possible. Ecstasy took my daughter but it will not take me! A year ago I started a foundation in her memory, The Kelley McEnery Baker Foundation for the Prevention, Education and Awareness of Ecstasy use. I speak to high schools and youth groups and share Kelley's story with hope the kids will learn from Kelley's deadly mistakes. I also speak to parents groups and town hall meeting to encourage parents to become what I now call "information junkies" when it comes to knowing all you can about the many drugs that may cross paths with their children. I tell parents that we so often go to the grocery store very prepared with a grocery list in hand but are we as prepared when it comes to sitting down and talking to our children about drugs. My goal is to re-inform the misinformed and to enlighten those who know nothing.

During the past year I've talked to well over 3,000 kids, I use a Power Point program to help with Ecstasy facts and figures but I mostly talk from my heart. I have found the reception that I am greeted with has been one of warmth and respect. I encourage questions and I have plenty questions of my own to ask as well, one question I never fail to ask is how many parents have sat down and had a "drug talk" with them, sadly all too few hands are raised. At one particular school I visited I went further and asked how many of them knew someone who had overdosed on drugs, surprisingly far more hands went up, they then went on to share the stories with me. It is my experience that there is a huge population of parents that don't talk to their children about drugs, perhaps they themselves aren't informed of the many different drugs or maybe they feel as many parents do "my child is not the type to try drugs." I know of what I speak, I was one of those parents. The time is now to find a way to impress upon parents how important it is to become knowledgeable about all drugs and then to share that important information with their children. Drug awareness and education starts in the home.

I was recently asked by my Congressmen Mark Kirk to join a drug task force that he has assembled after realizing there was a need to address the growing concern that we are facing regarding club drugs in Illinois. This task force is made up of a group of knowledgeable professionals which includes former DEA Director Peter Bensinger. Also represented is an Illinois State Senator and State Representative, along with several Metropolitan Enforcement Group officers and many leaders in the drug prevention field. A major goal of the task force is to increase drug awareness which with hope will lead to a decrease in drug use in the Chicago area. I am proud of the State of Illinois and it's lawmakers for taking a hard stance against Ecstasy and club drugs by introducing and passing House Bill 126. It was a labor of love for me to have lobbied for this law, It is now known as "Kelley's Law."

Kelley's Law targets criminals who seek to profit from illegal clubs, it took effect January 1, 2002. People convicted of selling from 15 to 200 doses of Ecstasy with intent to distribute will face Class X felony penalties of six to 30 years in prison with no chance of parole. it is the toughest law of it's kind in the country. Without Kelley's Law a person would have to sell more than 200 grams (approx. 900 pills) in order to be charged with a Class X felony in Illinois. Chicago DEA supervisor George Karountzos recently told me through intelligence information that he has gathered since the inception of Kelley's Law there has been a marked decrease in people wanting to get involved with dealing Ecstasy due to these very stiff penalties.

There is much to be done on many fronts in order to put a significant dent in the war that we have waged against drugs. I believe that our priority should be education and awareness, which should start in the home and continue with he support of our school system and faith based organizations (church, synagogue). The phrase "it takes a village to raise a child" is a good metaphor in that drug education and awareness to be effective should be approached from many different directions. It is a fact that that we must learn to accept that drug abuse/addiction is a medical illness, and is deemed so by the AMA. There are many repeat drug offenders who land in jail repeatedly with no help for their illness, they should be treated for their illness with the help of drug programs and drug courts. Illinois and Kelley's Law has set an example that stiffer club drug penalties work, I feel every state should review their drugs laws and update them accordingly. this is a bipartisan issue and is of paramount importance in order to help protect every child in this country.

I will close today as I close my presentation to the kids I speak to, I ask for a volunteer to read a poem. This is a poem that I selected and was read at Kelley's funeral by one of her high school classmates.

Remember Me

To the living I am gone.
To the sorrowful, I will never return.
To the angry, I was cheated.
But to the happy, I am at peace. And to
the faithful I have never left.
I cannot be seen, but I can be heard.

So as you stand upon a shore,
gazing at a beautiful sea.....remember me.
As you look in awe at a mighty forest and
it's grand majesty.....remember me
As you look upon a flower and admire it's
simplicity.....remember me.

Remember me in your heart, your thoughts and
your memories of the time we loved, the times
we cried, the times we fought, the times we laughed.

For if you always think of me,
I will have never gone.....

After this poem has been read I ask the kids if they could possibly imagine reading this poem as the funeral of one of their friends or worse yet having it read at their own funeral, the silence is deafening. I am hoping this exercise drives home the point that drugs not only may harm them, send them to jail or worse yet kill them. Thus far my point as been very well taken

I want to thank this subcommittee and all members of Congress from the bottom of my heart for all your efforts in the fight against drugs.

Kate Patton
"Forever Kelley's Mom"

Mr. SOUDER. Thank you for being willing to come forth today and also for all your work in the schools. Hopefully it will have a good, positive impact on lots of other kids and their families down the road.

Ms. PATTON. Thank you.

Mr. SOUDER. Ms. Smith.

Ms. SMITH. Thank you. I feel very fortunate to be sitting here today not only as a citizen of this great country but as a survivor of an insidious drug called ecstasy. I get all choked up sitting next to Kate here who I have grown to love. It could so have easily been my mom sitting here today with a picture of me on her lapel. I feel very, very fortunate.

I guess I will start by telling you a little bit about myself and where I grew up. I grew up in a really tiny, tiny town called Danville, which is in Pennsylvania. Lots of cows, lots of pastures, lots of farms. I was a straight A student, well liked, popular, all of those things, a boyfriend. All of those things you want when you are young I had. I had always dreamed of moving to New York City to pursue a career when I was old enough and when I graduated.

My dream came true when my mom brought me to New York City when I was 19 years old. So, as you can imagine, it was a completely new way of life. No pastures, no cows. It was city streets, city lights. It was a whole new way for me to get used to. I was exposed to new people from acting school I just thought were so exotic, so intelligent, so amazing. At every party we went to there just seemed to be an endless supply of drugs. I was turning 20 and I was unable to go to bars with my friends—I could not get into most bars, I could not even have a Heineken if I wanted—but we were sitting in apartments of different friends and there would be cocaine, there would be ecstasy, heroin. And I was drug-free until the time I moved to New York City. It was just all so shocking to me but at the same time very alluring. I thought, wow, I am on my own, I can do whatever I want.

One particular evening I fell in love with ecstasy. My love affair began that evening when my friend pulled out a card and said, "We are going to order some pills, do you want anything?" I was like, well, should I. She is like, "Don't even answer, we will just order you some, and if you want it you can have it." So like calling Dominos Pizza, 30 minutes or less there was a messenger at our door with a bag of pills with little smiley faces, very interesting emblems, Nike symbols, Mitsubishis. It was just like, OK, pick out your favorite color, pick out what represents your personality. It was a way to pick out a pair of jeans or sneakers, that is the way people were diving into this bag, like, oh, I am going to take these, this is a smooth high.

So I just closed my eyes, put my hand in the bag, and swallowed one not really thinking about it. I had seen them all do ecstasy before and it just seemed so—I mean, everything I learned growing up was it was going to be a dark, scary alley, there was going to be a dark, scary man selling me drugs. It was going to be scary. But it wasn't. It was in a beautiful Greenwich Village apartment, nice, smooth lighting. My drug dealers were my friends. And the awful feeling that I thought came from drugs, it looked very amaz-

ing to me—everyone giving massages, hugging, and talking. And I did it.

After that pill, nothing was ever the same again. I just thought, oh, my gosh, this is what true happiness is. For those of you who have never used ecstasy, although it is a chemical reproduction, it makes it feel no less real. You feel amazing; no anxiety, no worries whatsoever. I just felt so complete and whole while I was doing it. I did not have a lot of time on my hands, I was working a full-time job and putting myself through school. When I graduated and my friends changed, I had more time on my hands, and of course graduating from acting school is like, OK, here is your token and a cup of coffee; there is not much guarantee of anything. So it was a really cutthroat industry that I was going into and failing at, my friends changed, I was bartending late hours, and I began to use ecstasy more and more.

I was going out to clubs. And it was basically during a 5-month period that I was getting involved with people who sold ecstasy. It was just so readily available to me. I was not paying for it half the time. So I was really just socially addicted to this drug, going out, being in clubs dancing, and just feeling amazing. My weekends started out Thursday to Saturday and then went Thursday to Monday and I was just popping these pills like they were candy.

The reverse effects soon set in. I was having panic attacks, I was feeling like I wanted to rip my skin off, I wanted to die. I could not sleep at night, I could not eat, I was not talking to my family, I was not going on auditions, I was not showing up for the 2-days of work that I had per week. My life was just in a downward spiral within a matter of months. It was not like years I was using this drug. At the end of this spiral, I was sitting at home in my apartment in Brooklyn with my boyfriend and my roommates. We had just finished a movie, it was late, I stood up from the couch and within seconds I just felt changed. I felt like something inside me had snapped. I could not catch my breath, I felt like I was having a heart attack, I was hallucinating, I did not know who I was, I did not know where I was, I was so paranoid, I did not know what was going on. I was trying to make myself vomit, I was pacing around, I was trying to run outside into traffic. Luckily, my boyfriend stood by my side the whole time whereas my friends went off to bed, they told me to have a cigarette or a shot and that was actually the last time I saw those people.

So the only sane and reality-based thought I had was to call my mom, call my mom, that was all that was in my head. So my boyfriend called my mom. I got on the phone and said you have got to come get me, I am dying, I am going crazy, I am in hell, you have to rescue me. Of course, probably every parents' second worst nightmare, the first would be your daughter is dead. She very calmly said I will be right there. She got in her car and drove in the middle of the night to New York City. By the time she got there I was so completely out of reality that when she pulled up to the curb I did not know who she was and I refused to get in the car with her because I just did not believe who it was, I did not believe it was my mom. So my boyfriend had to force me in the car. During the drive home I kicked and I screamed, I was praying to

God to wake me up from this nightmare that was not a nightmare, it was real life.

We got to the emergency room where—and my mom had no idea of what I was doing in New York City, she thought I was still the model child that I left as—I told the doctor that I was using ecstasy and that I was using it all the time, I did not know where my life was going. And then I really do not remember much. All I know is that I had to sign papers to go into a psychiatric ward in my hospital and that if I did not sign it the State would sign it. So basically my mom convinced me to sign it. So I signed it and it was done. I was in a psychiatric ward for 14 days. The first few days I refused to take medications because I was so paranoid and I was afraid I was swallowing more ecstasy, so I refused to take medications which were to help me sleep because I was not sleeping.

So, basically, I came out of this and started to take my medication and at the end of 2 weeks I left. I got out of there thinking, OK, this is it. OK, life was better but I had no job, I had no apartment anymore, I had no money, I had no friends, I had a whole new way of life to start, making some decisions, a lot of soul-searching, a lot of medication, a lot of counseling, a lot of AA meetings. And the only thought that I had the whole time I was in the psychiatric ward when I was back to reality was I need to talk, I need to tell this story, and I kept saying to my mom I need to talk. And my mom was like, well, let's get you better. And I was like, no, I need to talk, I have to be heard, this needs to be known because I never thought this drug could do this to me.

Everything I read about it, everything I saw, everything I heard was so—you know, the New York Times Magazine, I do not know if you all read that a few years back, with a tall, beautiful model with the word "ecstasy" wrapped around her, and I read that article thinking, this was after I got out of the hospital, thinking why am I not still doing this. It was saying how great it was and what the amazing affects were. And I thought I am alone and I am the going crazy and I am the only crazy person.

So I contacted MTV, I was writing letters to anyone who would listen to me, and MTV decided to do a show on ecstasy called "True Life: I'm on Ecstasy," which I was a part of. And from that it just kind of snowballed. My place began and people were listening and interested. I was contacted by the Partnership for a Drug-Free America, who I now volunteer for and I am on an advisory board there, and I began just speaking locally and now I speak throughout the country. I feel like I really do have my finger on the pulse of kids, of young people. I am a young person. Luckily, I came out of this alive. I know what they are up against. And when I talk to them on a daily basis, I receive thousands of e-mails, some of which I included, from kids from all over the country talking about thank you for coming forward, thank you for going public, you were the first person I could see and relate to and think, wow, this happened to her, it could happen to me, or it did happen to me and now what do I do.

So it has definitely been an amazing experience for me to talk to kids and to be a part of drug education, which I think is so crucial and important, and a whole new wave of drug education and the way we approach kids and what we do in schools now. I wish

there were 15 of me that I could just send out. I want to do all I can. It is just not enough, there just needs to be more done. I thank you so much for inviting me here and listening to what I have to say. I guess I just want to say my voice speaks out for all of those who no longer have one and all of those who do not know how to ask for help. I want you to look at me as a daughter talking to their father or their mother or their sister or brother, I just want you to look at me as your own child. Thank you.

[The prepared statement of Ms. Smith follows:]

Testimony of Lynn M. Smith
before the
United States House of Representatives Committee on Government Reform
Subcommittee on Criminal Justice, Drug Policy, and Human Resources
Hearing on Ecstasy
September 19, 2001

I hear a lot of people talking about Ecstasy, calling it a fun, harmless drug. All I can think is, "if they only knew." I grew up in a small, rural town in Pennsylvania. It's one of those places where everyone knows your name, what you did, what you ate and so on. They certainly knew me - I was a straight-A student involved in many school activities. I was one of the popular kids, liked by all the different crowds, involved in homecoming, regularly cast in school theater productions. Drugs never played a part in my life. They were never a question - I was too involved and focused on other things. I always dreamed of moving to New York City to study acting and pursue a career in theater. My dream came true when my mom brought me to the city to attend acting school. As you can imagine, it was quite a change from home. I was exposed to new people, new ideas and a completely new way of life - a way of life that exposed me to drugs. Most of the people that I met and spent time with in acting school had already been doing drugs for years. I guess I felt that by using drugs, I would become a part of their world and it would deepen my friendships with them to new levels. I tried pot, even a little cocaine, but it was Ecstasy that changed my life forever. I remember the feeling I had the first time I did Ecstasy: complete and utter bliss. I could feel the pulse of the universe; I let every breath, touch and molecule move my soul. It was as if I had unlocked some sort of secret world; it was as if I'd found heaven. And I have to admit, I wondered how anything that made you feel so good could possibly be bad.

At first, going to school and holding down two jobs to stay afloat left little time for partying, but as time went by things changed. I graduated, had a steady job, made more new friends - and began to use drugs, especially Ecstasy, more frequently. As I did, I actually started to look down on those who did not. I surrounded myself only with those who did. Looking back on my old friends, I see how we were all so similar, not just in our drug use but in a deeper sense. We were all broken in someone way, feeling sad, hurt and alone. Whether it was from a difficult childhood, a broken heart, or feelings of insecurity. We were a crowd of lost souls wanting so badly to be a part of something. I had gone from a girl who never used drugs to a woman who couldn't imagine life without them. Fortunately - at least as I saw it - all my friends did Ecstasy, and since my boyfriend sold it, I rarely paid for anything. My weekends were spent popping pills and dancing at one of the many clubs in New York City - but it didn't really matter where I was. Clubs, bars, apartments - anywhere, anytime became a good place and a good time to use. My weekends began on Thursday and ran until Sunday.

I had come to New York dreaming of a career in the theater. Drugs didn't rob me of that dream, but they did make me willing to forget about it. It wasn't that I stopped getting parts because I was using; I just stopped auditioning. Sometimes I stopped eating and sleeping. I worked only two days a week to support my habit. The rest of the time was spent getting high, almost always on Ecstasy. The utter bliss of my first Ecstasy experience was a distant memory. Of course, I never could recapture that first high, no matter how much Ecstasy I took.

In five months, I went from living somewhat responsibly while pursuing my dream to a person who didn't care about a thing - and the higher I got, the deeper I sank into a dark, lonely place. When I did sleep, I had nightmares and the shakes. I had pasty skin, a throbbing head and the beginnings of paranoia, but I ignored it all, thinking it was normal. Until the night I thought I was dying. On this night, I was sitting on the couch with my boyfriend and roommates, watching a movie and feeling normal when suddenly, I felt as if I needed to jump out of my skin. Racing thoughts, horrible images and hallucinations crept through my mind. I thought I was seeing the devil, and I repeatedly asked my friends if I was dead. I was pacing frantically back and forth, incapable of relaxing or understanding anything that was going on around me. On top of all this, I felt as if I was having a heart attack. The worst thing was those moments when I could see myself, and what I had become. Somehow, I managed to pick up the phone and call my mom in the middle of the night, telling her to come get me. She did, pulling me out of my apartment at the next morning.

I didn't know who I was or where I was as my mom drove me back to my family's hospital in Pennsylvania. I spent most of the drive curled up in the back seat while my younger sister tried to keep me calm. I think she and my mom were afraid I'd jump out of the moving car at any moment - and given my state of mind at the time, I can't say I blame them. When we finally got to the hospital, I was committed to the psychiatric ward. I spent the next 14 days there in a state of extreme confusion. This is what Ecstasy gave me - but it didn't stop there.

While I was in the hospital, my doctors performed something called a neuro-spec scan of my brain. I couldn't believe my eyes when I saw the results. The scan showed several dark splotches on the image of my brain, and my doctors told me those were areas - areas that carry out memory functions -- where the activity of my brain had been changed in some way. Because I used other drugs, the doctors could not say that my heavy Ecstasy abuse was solely responsible for this. But this much I know for sure: There's nothing in my medical history that could have contributed to this.
Since I saw that scan 2 years ago, my life has forever been changed. I have dedicated myself to educating America's youth about the perils of ecstasy abuse. I went public with my story in hopes of preventing others from making the same mistakes. I have become a spokesperson for the Partnership for a Drug Free

America and the anti-ecstasy movement. I have appeared on the Oprah Winfrey Show, MTV's True Life, the Ananda Lewis Show, and have been interviewed by dozens of reporters. I am actively speaking at schools and universities around the country to talk about my story and the need for drug education and awareness. My participation in a news conference regarding the launch of the first national education campaign targeting ecstasy was a critical element in the event's success, helping it to garner coverage from nearly 700 broadcast outlets nationwide. My story is powerful, and my commitment to using my experience to help others is considerable.

I have been given a second chance, and that's not something that everyone gets.

Lynn Smith

Mr. SOUDER. Thank you very much for your moving testimony and your enthusiasm. It is hard to imagine you on a stimulant. [Laughter.]

It was incredibly moving and it is really good for us to see that, both as parents and as legislators.

Dr. Horton has the unenviable position now of—when you go to testify for a hearing you always wonder what the testimony before you is going to be like and the pressure. But we appreciate your coming today and informing us a little on what might be done in the treatment area.

Dr. HORTON. Mr. Chairman and members of this subcommittee, I want to thank you for the opportunity to speak to you about the use of ecstasy and other club drugs among addicted young adults. My name is Dr. Terry Horton. I am a physician and the medical director of Phoenix House, which is the Nation's largest residential drug treatment program, now treating about 5,500 adolescents and adults throughout the country.

I have watched with mounting concern the rising incidence of club drug use and the impact of that use among teens and young adults entering treatment. We have seen over the last 5 years a dramatic increase in the number who report using club drugs, most notably MDMA, also known as ecstasy, and among them a significant number experience problems specifically associated with the use of these drugs. Experiences of these young people are a useful guide to the parameters of club drug and ecstasy use. They are consistent with the previously reported patterns and make clear that the use of ecstasy has been essentially a middle-class phenomena and is most readily found in the suburbs that we serve. It is no longer exclusively or primarily restricted to the club scene or all night underground dance parties called raves. Initial exposure for our teens and young adults is, in fact, more likely to occur at a friend's house, a school function, and the initial age of exposure is 14 years.

Until now the use of ecstasy has been rare in the inner-city. But there is a threat posed by recent glamorization of the drug by hip-hop musicians, and, indeed, a growing number of minority youngsters entering Phoenix House in New York City now report ecstasy use, a trend we have never seen before.

Now let's understand something about the use of ecstasy. Few people are addicted solely to ecstasy. They use ecstasy and other drugs as well. Among teens in our Phoenix academies, which are residential high schools for teens in treatment, the norm is poly substance abuse, abuse of more than one substance. Most start early with alcohol, tobacco, marijuana. We actually view regular use of club drugs like ketamine or ecstasy as a marker for serious, well-evolved drug history. At our Phoenix academies in Austin, Texas, Santa Anna, California, and Westchester, New York, more than half of the students have used ecstasy, a significant increase over the past year. We are also now beginning to see a new trend where ecstasy is becoming a drug of choice for adolescent users. At our academy in Ronconkma, Long Island, two-thirds have used ecstasy and 17 percent report it is their drug of choice.

Ecstasy use has clearly been shown to damage sensitive areas of the brain involved with memory and learning, it has been associ-

ated with elevated impulsivity, sleep, mood, anxiety disorders as well as possibly enhancing vulnerability to other psychiatric problems. Both animal and human models suggest that the damage may be long lasting, perhaps persistent. When we look at the behavioral impact of chronic ecstasy use, the outcomes we at Phoenix House see are much the same as those we find in young people whose drug abuse is restricted to other drugs such as cocaine and heroin. At Phoenix House, use of ecstasy and other club drugs is associated with disruption of education and a loss of career opportunities, HIV, risk behaviors, criminality, co-occurring psychiatric and psychological problems.

Addiction to ecstasy, as with other drugs, robs individuals of opportunity, hope, self-esteem, and health. Yet American teenagers seem somehow to have gotten the message or the impression that ecstasy is safe. So we must make every effort to disabuse them of this notion and stem the rising incidence of club drug use. It is no less important to save people who are already on the path of self-destruction from the dire consequences of prolonged ecstasy use.

Treatment works when it is available. Because treatment is not just how you stop people from using drugs, it is how you keep them from using drugs. It is about the person, the whole person, and what treatment does is help drug users to understand the underlying reasons for their drug use and confront them, change their negative attitudes, accept responsibility for themselves and their behaviors, and start a new and positive way of life. At Phoenix House we have been treating young drug addicts for 35 years. We recognize that no matter what drug is used treatment, whether it is outpatient or residential, takes time to initiate or to change ingrained patterns of behavior. Treatment must be demanding. And while it takes motivation to succeed, at the start it generally takes some pressure from parents, schools, employers, and the courts. And, of course, treatment should involve the whole family—parents, siblings, husbands, and wives.

At Phoenix House, treatment is based on a therapeutic community model. This model uses peer group to change behaviors and attitudes that lead people to drug abuse. Young people in our programs take an active part in their own recovery and are partners in the recovery of their peers. We foster self-awareness, teach social values, and provide a road to maturity for young men and women whose maturation was thwarted by drugs. We help them acquire skills to sustain recovery, education and career training so they can reunite with their families as drug-free and productive individuals.

Relearning fundamental skills and reshaping lives takes time. Typically, residential treatment can last 12 to 18 months and may be followed by after-care. Research shows us that these efforts are not wasted. However our clients come into treatment, by their own decision, family coercion, or criminal justice referral, long-term success is correlated directly to the length of time in treatment. And long-term success means sustained sobriety, employment, and freedom from criminal activity.

Treatment works when it is available. But as the National Household Survey, conducted by the Substance Abuse and Mental Health Services Administration, reported earlier this month, nearly 80 percent of those who need treatment do not receive it. What the

survey does not show is what we have been seeing at Phoenix House, which is the rapidly rising level of ecstasy use among kids in all of our adolescent treatment programs throughout the country. And what is truly frightening to me as a physician is the number of addicted kids today throughout the country who are probably also abusing ecstasy, placing themselves in harm's way, and who have no access to treatment. Thank you.

[The prepared statement of Dr. Horton follows:]

Statement of

Terry L. Horton, M.D.

Medical Director, Phoenix House Foundation

Subcommittee on Criminal Justice, Drug Policy and Human Resources

Committee on Government Reform

Hearing on Ecstasy and Club Drugs

Rayburn House Office Building

Room 2203

September 19, 2002

1:00 p.m.

Mr. Chairman, members of the Subcommittee, I want to thank you for the opportunity to speak to you today about the use of Ecstasy and other club drugs.

My name is Terry Horton, M.D. I am a physician and the Medical Director of Phoenix House, which is the nation's largest residential drug treatment program. We now treat more than 5,500 clients in eight states.

I have watched with mounting concern the rising incidence of club drug use and the impact of that use among teens and young adults entering treatment. We have seen, over the last five years, a dramatic increase in the number who report using club drugs most notably 3-4 methylenedioxymethamphetamine (MDMA)... commonly called Ecstasy. And, among them a significant number experience problems specifically associated with the use of these drugs.

The experiences of these young people are a useful guide to the parameters of club drug and Ecstasy use. They are consistent with previously reported patterns, and make clear that:

- The use of Ecstasy has been essentially a middle-class phenomenon, and is most readily found in the suburbs.
- But it is no longer almost exclusively or primarily restricted to the club scene or all-night, underground dance parties called "raves."
- Initial exposure for our teens and young adults is, in fact, more likely to occur at a friend's house or school function, and the initial age of exposure is 14 years.

Until now, the use of Ecstasy has been rare in the inner city. But there is a threat posed by recent glamorization of the drug by hip hop musicians and indeed, a growing number of minority youngsters entering Phoenix House in New York City now report Ecstasy use – a trend we have never seen before.

- more -

But let's understand something about the use of Ecstasy. Few young people are addicted solely to Ecstasy. They use Ecstasy and other drugs as well. Among teens in our Phoenix Academies, which are residential high schools for teens in treatment, the norm is polysubstance abuse - the use of more than one drug. Most start early with alcohol, tobacco, or marijuana. We actually look at the regular use of club drugs like ketamine or Ecstasy as a marker for a serious and well-evolved drug history.

At our Phoenix Academies in Austin, Texas; Santa Ana, California; and Westchester, New York; more than half the students have used Ecstasy - a significant increase over the past year.

We are also now beginning to see a new trend where Ecstasy is becoming a drug of choice for adolescents. At our Academy in Ronkonkoma, Long Island, two-thirds have used Ecstasy and 17 percent report it as their drug of choice.

Ecstasy use has clearly been shown to damage sensitive areas of the brain involved with memory and learning. It has also been associated with elevated impulsivity and sleep, mood, and anxiety disorders. It also possibly enhances vulnerability to other psychiatric problems. Both animal and human studies suggest that this damage may be long lasting.

When we look at the behavioral impact of chronic Ecstasy use the outcomes we see are much the same as those we find in young people whose drug abuse is restricted to cocaine and heroin. At Phoenix House, use of Ecstasy and other club drugs is associated with:

- disruption of education and loss of career opportunities,
- HIV risk behaviors,
- criminality,
- co-occurring psychiatric and psychological problems.

No matter what drugs are involve, chronic abuse will result fundamentally in

- disordered values,
- negative and self- defeating behavior,
- and the death of aspiration.

It will rob the abuser of opportunities, hope, self-esteem, and health.

American teenagers seem somehow to have gotten the impression that Ecstasy is safe. So, we must make every effort to disabuse them of this notion and stem the rising incidence of club drug use. But it is no less important to help save people who are already on this path of self-destruction from the dire consequences of prolonged Ecstasy use.

Treatment works when it is available because treatment isn't just how you stop people from using drugs. It is how you keep them from using drugs because treatment isn't about the drug. It's about the person – the whole person. And what treatment does is help drug abusers to:

- Understand the underlying reasons for their drug abuse and confront them.
- Change their negative attitudes.
- Accept responsibility for themselves.
- And start a new and positive way of life.

At Phoenix House, we've been treating young drug abusers for 35 years. We recognize that no matter what drug is used, treatment - whether it is outpatient or residential - takes time to change ingrained patterns of behavior,

Treatment must be demanding. And, while it takes motivation to succeed, it generally takes some pressure—from parents, schools, employers, or the courts—at the start.

Treatment should involve the whole family: parents and siblings, husbands and wives.

At Phoenix House, treatment is based on the therapeutic community model. This model uses the peer group to change the behaviors and attitudes that lead people to drug abuse. Young people in our programs take an active part in their own recovery… and are partners in the recovery of their peers.

We foster self-awareness, teach social values, and provide a road to maturity for young men and women whose maturation was thwarted by drugs. We help them acquire the skills to sustain recovery - education or career training - so they can reunite with families as drug-free, productive citizens.

Relearning fundamental skills and reshaping lives takes time. Typically, residential treatment can last 12 to 18 months, or may be followed by aftercare. Research shows us that these efforts are not wasted. However our clients come into treatment - by their own decision, family coercion, or criminal justice referral – long-term success is correlated directly to length of time in treatment. And long-term success means sustained sobriety, employment, and freedom from criminal activity.

Treatment works - when it is available. But, as the National Household Survey, conducted by the Substance Abuse and Mental Health Services Administration, reported earlier this month, 80 percent of the people who need treatment don't receive it.

What the survey does not show is what we have been seeing at Phoenix House, which is the rapidly rising level of Ecstasy use among kids in all of our adolescent treatment programs throughout the country.

But what is truly frightening to me as a physician is the number of addicted kids who are abusing Ecstasy, placing themselves in harm's way with no access to treatment. Thank you.

Mr. SOUDER. Dr. Horton, you said a high percentage had used ecstasy at least at a couple of your locations, 17 percent at one had it their primary choice. When somebody comes in with ecstasy, how are they different from people who come in others, both in how they are entering psychologically, how you treat them, is the physical addiction the same?

Dr. HORTON. All drugs of addiction act on the central area of the brain, which NIDA has been really good about explaining. The consequences of that are behavioral consequences, and they are really quite common regardless of the drug of abuse, and that is what we have found for 35 years, be it marijuana, alcohol, cocaine, heroin, ecstasy, whatever.

We really have two different populations. We have the adolescents and the adults. The adults who use ecstasy or have used ecstasy have been primarily our younger adults and ecstasy was clearly one of the mix. Frequently these individuals call themselves "garbage heads" as a description for a poly substance abuser. Among our adolescents coming into treatment, those are primarily drug abusers with their chief drug being marijuana and alcohol, daily, chronic use of marijuana and alcohol. And what we have been describing in the last year is really a rapid increase in that group who—particularly the ones from the urban settings, which is a major chunk of our clients, particularly in New York City—have not used ecstasy and are now starting to have that as part of the mix.

They do not on the surface look any different or act any different than any of the other of our clients. But I would like to share with you an anecdote that came to me this week from one of the directors of our outpatient programs in Manhattan, a program that primarily serves adolescents that are from more affluent and private school populations, an after-school program. Fifteen of the children there, and for 5 years there has been more of an ecstasy exposure in this group, fifteen kids are currently in the program, seven were regular chronic users prior to coming into the program, two of that group flat out stated that this was their drug of choice.

And in the dynamic of that program, which is a group therapy—you ask how do these kids act any differently, and it is very interesting—the group responds differently to these two children. They are not quite cognitively as aware, they are a little slower. This is a program that tries to teach abstract concepts, there is a lot of thinking, soul-searching. The group responds by accommodating perhaps to the impairment that these two have incurred. One of those children is a student at Julliard—I am talking about someone who is extremely high functioning, who composes, who is a pianist—and he reports separately the feeling of not quite performing at where he was before and he reflects that in his composition.

So I would say that research has not caught up to this place yet and this perhaps is the front edge of the problem. We are seeing cognitive impairment.

Mr. SOUDER. Ms. Smith, what is kind of your reaction to the media anti-drug campaign and the drug-free schools and how we could make those more effective for kids?

Ms. SMITH. I ask, because most of the young people who I go speak to think I am a lot younger, which works for me, and they

just trust me instantly. I show my MTV video when I speak and that hooks them right in. And I ask them after, especially with this new ecstasy campaign that the Partnership has launched, I say, "Have any of you seen those commercials?" and most all of them raise their hands. And I say, "Honestly, tell me what you think? What would work for you guys? What would you want to see? What would change your mind if you had something in front of you that you were about to swallow but you saw it, what would impact you?" And there are no teachers, no principals there. And I ask them straight out. And they say they laugh at those commercials. They say it is just so kind of Hollywood and it looks just splashy and not real. That is all I get from these kids. They say it is does not convey truth or reality to what is going on. Yes, the ultimate price you pay with this drug and with any drug is with your life. But it is the stuff that you live with, that you survive the panic attacks, the lapses of reality, all of those things.

It is just such a slippery slope and it is hard to say what would work. But I am seeing more young people like myself coming forward and telling their stories and getting out there. You know, this brain imagine that was shown on the MTV video, I never thought my brain would be so famous, I get calls for it everyday, could we have a copy of your brain, this is what gets through to kids. They saw this, and obviously it looks pretty awful, it is not holes in my brain, that is not what it is, but they see that, this is like a tangible thing they look at and they say, wow. Looking at me, looking that I am a young person, looking at what I have done, knowing that I did do ecstasy for a very long time, most kids e-mail me saying I saw the MTV thing, wow, your brain, your brain, I was going to go do ecstasy tonight at a party and all I had was that image of your rotating brain on the MTV special, or I got your picture up on the Web site and your story just really impacts me.

I never thought it would be—I just thought I was telling my story. I did not think I was really going to be recognized for it. I guess it is just truth. The truth conveys and that is the best kind of message out there. I think maybe just people who are willing to come forward and really just give testimonies to the camera saying this is what happened to me, or showing pictures. I do not know. There are so many ways to go about it. I would love to be a part of it and really help.

Mr. SOUDER. Thank you. Mr. Cummings.

Mr. CUMMINGS. I want to thank all of you for your testimony.

I am just curious, Ms. Smith, if you had heard you, do you think you would have tried ecstasy?

Ms. SMITH. If I would have heard me today would I be a user?

Mr. CUMMINGS. In other words, before you even tried it, if you had heard you, somebody like you sit up and say what you said, do you think you would have still used it? Let me tell you where I am going. One of the things that you said that was very interesting is that you would be in these apartments I guess and whatever and it was something very attractive. I guess it is the same kind of thing that draws young people to smoke cigarettes, it looks——

Ms. SMITH. It is seductive.

Mr. CUMMINGS. Yes, right. And so I am just wondering, hearing your own story, would that have been enough?

Ms. SMITH. You know, for me I think it would have been. Like I was just really naive. I had no kind of drug education growing up from my family or from school. I think I had one teacher in health class say that marijuana is very bad. [Laughter.]

And the "Just Say No" kind of thing and then, OK, on to the next subject. It was nothing, no kind of life skills. I could tell you the square root of pi and balance an equation, but if you asked what are the side effects of cocaine use or what are the real consequences of you using ecstasy, I would have no idea. And I did not do my own research. I was 20 years old and I was not going to the library thinking MDMA. I was thinking, wow, it is a smiley face, it looks like a Tic-Tac, it is not a needle, people's heads are not rolling off their bodies.

I had never heard anything bad about the drug until this happened to me. And I saw myself, I was watching the MTV thing and saw my own story and thought, oh, my gosh, I wish I would have seen this. I wish there had been someone else who survived this who had came forward and done this. I cannot say definitely no way would I have done it. I think it really, really would have helped.

I think most of the kids that I talk to are really intelligent and they want to know, they are thirsty and hungry for information. It is not like, oh, I am a rebel, I just want to use drugs. They really do not know any better. Like Kate was saying, most of the kids I ask too, do your parents talk to you, do you have health classes. Some of them do not even have mandatory health classes and the last thing they remember was maybe in the third grade having a DARE officer come in and talk to them.

Ms. PATTON. And they tune out.

Ms. SMITH. They tune out. Someone comes in, you know, I go in, I dye my hair different colors, I just want to be one of them and I feel so close to them knowing what they are going through and being a young person, not saying the DARE officers are not great in their own right but at the same time there has to be a whole new way and a whole new approach to the issue. And it is a whole new generation of kids, very intelligent kids, very savvy kids, knowing a lot more than I did at that age, and that was only 6 years ago that I was in high school. So I think there just needs to be a much more respectful and intelligent approach and truthful, very truthful.

Mr. CUMMINGS. The thing is that we serve not only as parents here but as legislators to affect young people before they get to the point of using. And the more I listen to your testimony it reminds me of one time in Baltimore, the area I represent, and I brought in someone to a high school class who had sold drugs and used drugs and had gone to prison, had been through a lot, and the interesting thing was about 6 or 7 months later I was talking to the teacher, just ran into her in the supermarket, and I said, "Do you think we had any impact?" And she said, "The kids were so impressed they wanted to try it." It was very interesting. Here I was thinking that I was actually doing something to prevent and they again thinking it will never happen to me, that is the exception to the rule, they would take the part, for example, in your presentation when you said how you felt in the beginning. And I want to

make it very clear that I admire you all for coming, your testimony is very important, but a lot of these kids took the glamour of the piece and just discarded the rest of it based on, well, that is not going to happen to me. We struggle so much.

Ms. SMITH. It is so hard. But I have the exact kind of opposite experience with kids saying that it is the scare tactics that do not work. And you have to be truthful and say it does make you feel amazing because it is a chemical that has a reaction and it does make you feel all these things, but you have to include all of the awful things that it forces you to live with, if you are lucky enough to make it.

Mr. CUMMINGS. Just one question, Ms. Patton. The thing that you said just kind of struck me was when you said there were three—I forgot how you said it.

Ms. PATTON. I lost Kelley three times.

Mr. CUMMINGS. Yes. And one of them, the second one was you talked about her selling. How did that come to your attention? Did you find out about it after——

Ms. PATTON. After. I did not even know she was doing drugs before the police came to my door to tell me she had died. You feel like you have just been slapped in the face. And then I thought it must have been a car accident, and I said, "How?" And the police officer said it was an overdose of ecstasy. Well then I was faced with well what is that. And again it is another blow. They said it was a very popular drug among young kids, it was a club drug. I mean, I absolutely knew nothing about ecstasy or club drugs before the police came to my door.

But it was afterwards, a couple of weeks after she died that they told me. They did not lay all that on me then, they told me a couple of weeks afterward that she was involved in selling it. But that is the grasp that drug has on people. It is the seductive grasp that drug has.

Mr. CUMMINGS. Talking to parents, do you get the impression that maybe parents just want to avoid this subject and just sort of hope that——

Ms. PATTON. Hoping it is going to go away? Yes, and I was one of those. I asked her, "Do you do drugs?" And she said, "I've tried some things, I've smoked some marijuana. That's it." And that was it. Our drug talk lasted 30 seconds because I was one of those parents that thought it could not possibly happen to my kids. She grew up in an affluent family and I never did drugs, she knew my stand and my feeling on drugs, so I guess I thought that will just rub off on her and she will never try drugs. Well, I was sadly mistaken. We as parents cannot take that cavalier attitude thinking that just because we did not do it they will not. There is just so much temptation out there.

I really feel it starts at home. And if your kids sit there and roll their eyes when you are talking to them about it, they are still listening. Just as an example, my young daughter was down with her dad for the summer and he never asked her where she was going or told her to come home at a certain time. She is 14. She would just say good-bye and he would never say where are you going and be back at a certain time. She came home and she said, "You know, mom, I just don't think dad cares about me." And I said, "Yes, he

does." She said, "Well he never asks where I go and he never tells me to come home at a certain time. I know you care because you tell me to come home at a certain time." And I think that is the same about drugs.

You care about your kids and you have got to sit down and talk to them about the drugs. You have got to be knowledgeable and know what you are talking about, and there are so many ways to become knowledgeable nowadays that there is no excuse that people cannot. But you have to take the time. I know people have two jobs and blended families and what have you, but it has got to be a priority. Parents have to realize that it starts at home. I think some parents also feel that, well, the schools will do it. I do not have to do it, the schools will do it. Well, yes, the schools will, hopefully, not guaranteed, perhaps touch on the subject. But we cannot rely solely on the schools. Schools cannot solely rely on parents. As I said in my statement, it takes a village to raise a child. And this is what it is going to take for kids to stay away from drugs.

And you were mentioning about the commercials. I know the Office of National Drug Control Policy did all the commercials, John Walters is the Drug Czar, it was not his tenure, but they said it was a bust. They said it was an absolute bust. I had the distinct privilege of meeting with President Bush a couple of months ago and he was telling me about it and he said that we wasted so much money on those commercials because they felt that kids were going out and trying the drugs after looking at those commercials. I think you have to be very careful what commercial you put up there, that it not somehow instead make them curious as to, well, what is all the big hullabaloo about, let's go try it and find out.

Mr. SOUDER. We need to say for the record that actually is not true. They were disappointed that they did not make more progress. And we are trying to make the program more effective. But the problem in this whole field is that would be equivalent to if you would talk to a high school and then it was found out that some of those kids had used drugs and holding it accountable to your presentation. There are so many different aspects, of what is going on simultaneously, in fact, even the drug data itself in different subgroups. We have had a lot of hot debate how to do it. It is not as effective and we are looking at how to make the things more effective.

But we need to say for the record we have mixed studies on DARE, in some communities it has worked extremely well, in others it has not. We have mixed studies on different treatment programs. Frankly, there is mixed data on all this kind of stuff. That is what we are wrestling with of how to do it. Do you try to cover more people for shorter periods, or fewer people for longer periods, which type of treatment programs.

We have had in front of this committee, I have been in Congress since 1994 and have been on this subcommittee, we have had unbelievably compelling testimony from mothers, spouses who have been beaten by their spouses on marijuana, from kids who come forth. I remember one in Phoenix where the mom was laying the cocaine on the table for the kids to snort after they came home from school. And in Florida, a young son with his dad, who was an

elected official, and the son said he was basically trying to get his dad's attention. His dad broke down and cried in the hearing, and it was the first time he had gone public as an elected official in that community. Really powerful testimony.

It is not like we have not had the Partnership for Drug Free America—these ads are difficult to do. Those are some of the smartest ad guys in the country. They have been trying to research, to figure out how effectively to do it. We have been going back and forth between do you scare, do you acknowledge, don't you acknowledge. If we acknowledge, we have the problem you are talking about, do we get somebody interested who was not previously. If we do not acknowledge, are we being artificial. If we do not scare, they do not understand the seriousness of the consequences. But if we do scare, those who have not had that——

Ms. PATTON. It is a tough nut to crack.

Mr. SOUDER. We really appreciate your testimony today because what we know is, it is almost like every campaign, after you do something for a while, unless you freshen it up, it is not going to work. And we are very disappointed with the national ad campaign results. It is not what we had hoped to get. We are very disappointed in our interdiction program. We are very disappointed in what is happening in Colombia. We are disappointed that so many people in treatment wind up back in treatment. I have never met an addict who has not been in multiple treatment programs. That does not mean we give up on treatment. It does not mean we give up on interdiction. It does not mean we give up on drug free schools. It does not mean we give up on ad programs. What we are looking for and what you are participating in today is how do we make this stuff more effective. And it is an honest study and we need everybody's input.

I want to see if Ms. Davis has anything. We have a vote called.

Ms. DAVIS OF VIRGINIA. Thank you, Mr. Chairman, I will make it sort of brief. I think you have just sort of put it all in a nutshell of how there is no silver bullet for this problem. It takes a lot of different avenues to try and reach these kids. I do not think we can give up on any of the ways that we are trying to stop the drug abuse and to save our kids.

Ms. Patton, I understand what you are saying about it starts at home. But even if you are a parent who sits and talks to your child, that is not the silver bullet that says that child will not try it. And Ms. Smith, I think your going out and talking to the kids is—my own son turned his life around. I felt he was doing some sort of drugs and I talked to him, talked to him, and talked to him until I was blue in the face. As a parent, I did not know how to reach him. He constantly denied it and I had no proof. He has since, 4 years ago, turned his life around and now he is going into the ministry and he is out ministering to other kids, which is fantastic. So prayer saved him. Now I do not think we can legislate prayer, but prayer did work with him.

Ms. Smith, you said we need a whole new wave of education. So you are saying that the "Just Say No" the DARE program did not work with you or you did not have that in your school?

Ms. SMITH. I did not have that in my school.

Ms. DAVIS OF VIRGINIA. How can we do a whole new wave of education in schools? What is your suggestion there? I mean, we cannot go out and get, we cannot clone you. I do not support cloning, we are not going to pass that. So what would you suggest?

Ms. SMITH. I guess it is just I encourage people who e-mail me and tell me their stories so much worse than mine and so much more devastating, and if they are able to they ask me what can I do. Look, I have seen your story posted, what can I do or how can I be heard. I say go out right where you are, your local area, go to the church, go to a local school, go wherever and tell your story. Just start out. I mean, I went to a juvenile detention center 2 weeks after I got out of the hospital because I just needed to. That is when I realized, wow, all of these guys who are in there for murder, for selling drugs, they had already pretty much hit rock bottom and they were listening to me and they were asking me questions. And I realized that, wow, I think this could work.

I think the more e-mails I get, the more people call me and say can you come here, can you come there, I figure maybe something is working and something is clicking in a lot of young people's minds, maybe not all of them.

It is kind of ironic. I was contacted by Dance Safe and The Partnership for a Drug Free America around the same time after my MTV show aired, both asking me to work for them, to volunteer for them. Emmanuel, the head of Dance Safe, said if you want to fly out here and put some testing kits together, I will put you on a salary. And then the Partnership called and said how about coming here and telling your story, putting it on a Web site, not getting paid a thing, just doing it. I was like, OK, I think that one sounds better. And a lot of young people look to this Dance Safe, too. Like you were saying, there is just no one silver bullet.

Ms. DAVIS OF VIRGINIA. You have to try everything. If you save one, you are successful.

Ms. PATTON. Exactly. And you keep plugging away and look at the big picture. For me at least, it is difficult at times to go out there and talk. Two days before Kelley's birthday I had a big 500-kid presentation and I thought I have got to look at the bigger picture, I am helping kids here and I have got to overcome the way I am feeling right now, as hard as it was.

Mrs. JO ANN DAVIS. I thank you all for coming and testifying. That is all I have, Mr. Chairman.

Mr. SOUDER. Ms. Smith, you said in your original testimony that you had not seen your friends where you had your overdose. Have they been affected by your comments, and why not?

Ms. SMITH. You know, no one contacted—with ecstasy, it is a very tribal drug, too. Kids doing it, not just kids, anyone doing it, they just feel a real sense of community, a sense of family. That is what I felt with ecstasy too, that with all of these people gathered, we came together and I felt like I was a part of something, that I was in some sick way doing something better together with other people. And your question was?

Mr. SOUDER. Have they changed? Has what happened to you impacted them?

Ms. SMITH. When I left that afternoon and I went home to Pennsylvania never to return to that apartment, I returned to New York

City, and no one called me while I was in the hospital, no one contacted me. None of those friends that were just like hugging and kissing and giving you massages, not a trace of them anywhere to be found. To this day I have not talked to one of them. I never made an effort to kind of go back and talk. It was just they are still in the same life, they are still going to the clubs, they are still doing the same thing.

Mr. SOUDER. Why wouldn't your life have scared them?

Ms. SMITH. Why didn't it scare them?

Mr. SOUDER. Yes. I mean, it is a profound question we are trying to figure out, and that is to some degree our prevention programs are oriented toward people who are not in the immediate temptation stage. We are trying to brace them before they get there. Then even if we brace them, when they actually get in the temptation it is like they forget everything they heard beforehand. Your friends, you look at it, you say it is not going to happen to me, I am different. And one of our big challenges is what can we do that penetrates while you are in your period of risk, and your friends are still in the period of risk, the people you are talking to may or may not be predominantly, and the question is how do we reach that group?

Ms. SMITH. Very good question. I was thinking, wow, they are all going to change because of what happened to me being so close, being what I thought was close friends during that time. They were almost—it scared them in a lot of ways I think because I was so vocal about what happened to me and I was on MTV. They were scared. They were scared that I was going to say something, like I was going to go on a national television show and hold up their pictures and say that these guys—that kind of thing. So I think right away the wall went up. They did not want to talk to me because all of a sudden I went from being in a dingy apartment to you know.

Mr. SOUDER. Well thank you very much for your testimony. We appreciate all the work that Phoenix House does all over the country. We need more treatment programs. I understand your basic point about the length of time, that these 8 week programs are why we have a lot of repetitiveness, because it is complex as to why the people get it and trying to figure out what gives the best iron will before it happens. But how to reach that at-risk group and how they will not fall back are the incredible challenges we have, and to keep the supply down.

So it has been enlightening. It has been enlightening on ecstasy and the particular allure. I hope that you will each keep up your aggressive efforts at the grassroots level.

With that, we stand adjourned.

[Whereupon, at 3:05 p.m., the committee was adjourned, to reconvene at the call of the Chair.]

[Additional information submitted for the hearing record follows:]

Survey: 10 percent of students have used the drug Ecstasy

By JENNIFER COLEMAN
Associated Press Writer

SACRAMENTO (AP) _ A survey of California students released Friday found that more than 10 percent of high school students have tried the drug Ecstasy, prompting the state to create a media campaign to target use of the drug.

The biennial survey by state Attorney General Bill Lockyer's office found that Ecstasy was the third most popular drug among the 7th, 9th and 11th graders questioned.

Alcohol and marijuana topped the survey, Lockyer said. This was the first year students were asked about their use of Ecstasy.

Though alcohol remained the most popular illegal substance, its use dropped more than other drugs, especially in the 7th and 11th grade, the survey found.

The previous survey, from 1999-2000, found that 35 percent of 7th graders had used alcohol in the previous six months, 52 percent of 9th graders and 66 percent of 11th grade students had used alcohol.

This year, 30 percent of 7th graders, 50 percent of 9th graders and 63 percent of 11th graders reported drinking in the past six months.

``The good news is that 7th graders are not drinking and smoking as much as they have in the past," Lockyer said. ``But we are concerned that heavy drinking and drug use among older high school students remain unacceptably high."

The survey found 4 percent of 7th graders said they had smoked cigarettes in the last 30 days, down from 7 percent the year before.

Marijuana use remained at similar levels to the previous study, with 7 percent of 7th grade students saying they had smoked it in the last six months, a drop of 2 percent. Use among 9th graders and 11th graders remained at 19 percent and 34 percent, respectively.

Though Ecstasy, an illegal hallucinogenic drug popular at all-night parties, ranked third for drug use, it was at a much lower rate. Six percent of 9th graders and 11 percent of 11th graders reporting that they had tried the drug. Two percent of 7th graders, 5 percent of 9th graders, and 9 percent of 11th graders reported using Ecstasy in the past six months.

The survey's results prompted the state Department of Alcohol and Drug Programs to focus a statewide media campaign on Ecstasy and other ``club drugs," said Kathryn P. Jett, the department's director.

The attorney general's study is conducted every two years, and is co-sponsored by the Department of Alcohol and Drug Programs and the Department of Education. The 2001-2002 study questioned 8,238 randomly selected students in 113 middle and high schools.

On the Net: Read the survey's preliminary results at http://www.ag.ca.gov/cvpc/css.html

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REPORTS

Severe Dopaminergic Neurotoxicity in Primates After a Common Recreational Dose Regimen of MDMA ("Ecstasy")

George A. Ricaurte,[1]* Jie Yuan,[1] George Hatzidimitriou,[1] Branden J. Cord,[2] Una D. McCann[3]

The prevailing view is that the popular recreational drug (±)3,4-methylenedioxymethamphetamine (MDMA, or "ecstasy") is a selective serotonin neurotoxin in animals and possibly in humans. Nonhuman primates exposed to several sequential doses of MDMA, a regimen modeled after one used by humans, developed severe brain dopaminergic neurotoxicity, in addition to less pronounced serotonergic neurotoxicity. MDMA neurotoxicity was associated with increased vulnerability to motor dysfunction secondary to dopamine depletion. These results have implications for mechanisms of MDMA neurotoxicity and suggest that recreational MDMA users may unwittingly be putting themselves at risk, either as young adults or later in life, for developing neuropsychiatric disorders related to brain dopamine and/or serotonin deficiency.

MDMA ("ecstasy") has become a popular recreational drug internationally (*1*, *2*). In the 1980s, MDMA was generally used on college campuses, with most individuals taking no more than one or two 75- to 150-mg doses, about 1.6 to 2.4 mg per kilogram of body weight (mg/kg), twice monthly (*3*). More recently, MDMA is increasingly used in the context of large, all-night dance parties where partygoers regard the drug as safe and consume multiple doses during the night (*4*, *5*).

MDMA appears to carry risks beyond the sociobehavioral effects associated with drug abuse. Experimental animals treated with MDMA show evidence of brain serotonin neurotoxicity (*6*–*8*), and MDMA-induced serotonin neurotoxicity may also occur in humans (*9*, *10*). Virtually all animal species tested until now show long-term effects on brain serotonin neurons but no lasting effects on either brain dopamine or norepinephrine (NE) neurons (*6*–*8*). In the mouse, dopamine neurons are affected, but serotonin neurons are spared (*11*, *12*).

We used nonhuman primates to evaluate the neurotoxic potential of a dose regimen modeled closely after one often used by MDMA users at all-night dance parties. Squirrel monkeys (*Saimiri sciureus*) were given MDMA at a dosage of 2 mg/kg, three times, at 3-hour intervals, for a total dose of 6 mg/kg (*13*). Of five monkeys treated with MDMA, three tolerated drug treatment without any apparent difficulty. One monkey became less mobile and had an unstable, tentative gait after the second dose, and therefore it was not given the third planned dose. The fifth monkey developed malignant hyperthermia and died within hours of receiving the last dose of MDMA. Two weeks after MDMA treatment, the three monkeys that tolerated drug treatment were examined for chemical and anatomic markers of brain serotonin neurons (*13*), along with three saline-treated control animals. These studies revealed lasting reductions in regional brain serotonin, serotonin's major metabolite (5-hydroxyindoleacetic acid, or 5-HIAA), and the serotonin transporter (SERT). Anatomic studies (*13*) supported these observations, showing reductions in the density of serotonin- and SERT-immunoreactive (SERT-IR) axons in some cortical regions (Fig. 1). Six weeks after MDMA treatment, the monkey that received only two doses of MDMA was evaluated and found to also have long-lasting reductions in serotonin axonal markers; serotonin, 5-HIAA, and SERT in the caudate nucleus of this animal were reduced by 37, 48, and 40%, respectively.

These same monkeys had marked reductions in various markers of striatal dopami-

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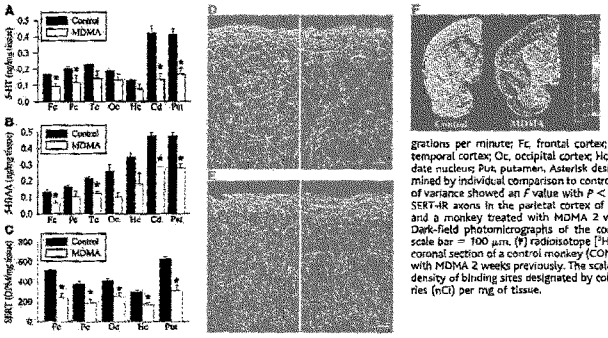

Fig. 1. Effect of MDMA on regional brain (A) serotonin (5-HT), (B) 5-HIAA, and (C) SERT in squirrel monkeys 2 weeks after drug treatment. Results shown represent the mean ± SEM ($n = 3$ animals per group). DPM, disintegrations per minute; Fc, frontal cortex; Pc, parietal cortex; Tc, temporal cortex; Oc, occipital cortex; Hc, hippocampus; Cd, caudate nucleus; Put, putamen. Asterisk designates $P < 0.05$, determined by individual comparison to control after one-way analysis of variance showed an F value with $P < 0.05$. (D) 5-HT– and (E) SERT-IR axons in the parietal cortex of a control monkey (left) and a monkey treated with MDMA 2 weeks previously (right). Dark-field photomicrographs of the coronal plane are shown; scale bar = 100 μm. (F) radioisotope [^{3}H]RTI-55–labeled SERT in coronal section of a control monkey (CON) and a monkey treated with MDMA 2 weeks previously. The scale on the right shows the density of binding sites designated by color expressed in nanocuries (nCi) per mg of tissue.

nergic axons (Fig. 2). The profound loss of striatal dopaminergic axonal markers was consistently observed in all monkeys examined, including the animal that received only two MDMA doses; dopamine, 3,4-dihydroxyphenylacetic acid (DOPAC), and the dopamine transporter (DAT) in the caudate nucleus of this animal were reduced by 65, 77, and 51%, respectively, 6 weeks after MDMA exposure. The loss of dopaminergic axonal markers was greater than the loss of serotonergic axonal markers. Morphologic studies revealed corresponding reductions in the density of striatal DAT- and tyrosine hydroxylase (TH)–IR axons throughout the striatal complex, with some sparing of the more caudal portion of the caudate nucleus (Fig. 2). Quantitative autoradiography studies (*13*) confirmed the severe reductions in striatal DAT density (Fig. 2).

To determine whether the severe long-lasting decrements in dopaminergic axonal markers in squirrel monkeys were unique to this primate species, we tested the effects of the same MDMA regimen in baboons (*Papio anubis*) (*13*). Again, one of five animals died, this time shortly after receiving only two doses of MDMA. Malignant hyperthermia (up to 41.6°C) was again an important factor. A second baboon appeared unstable after the second dose of MDMA and therefore received only two of the three planned doses. Two to 8 weeks after treatment, the four surviving MDMA-treated baboons, along with three saline-treated control animals, underwent chemical and anatomic studies of brain dopamine and serotonin neurons (*13*). Neurochemical and quantitative autoradiography studies again revealed a profound loss of striatal dopaminergic axonal markers (Fig. 3). Dopaminergic deficits in the striatum of the baboon that received only two MDMA doses were as severe as those in the baboons that received all three doses. Baboons also developed less severe, but significant, long-term reductions in regional brain serotonergic neuronal markers (Fig. 3).

To evaluate the selectivity of the observed effects, we assessed the status of noradrenergic neurons in both monkeys and baboons. MDMA produced no long-term effects on NE levels or the density of NE transporters in the brain of either primate species (figs. S1 and S2). Consistent with the lack of a long-term effect of MDMA on the concentrations of NE and its transporter, the density of TH-IR axons in the cerebral cortex of MDMA-treated monkeys was unaffected (fig. S1).

To determine that the lasting loss of chemical and anatomic markers of striatal dopaminergic and serotonergic axons and axon terminals was, in fact, due to a neurotoxic insult rather than to lingering acute pharmacological effects of MDMA, we used Fink and Heimer's method (*14*), which allows for selective silver impregnation of degenerating axons and axon terminals. A monkey treated with MDMA and evaluated 3½ days later (*13*) had dense argyrophilic debris characteristic of axon terminal degeneration in the striatum (Fig. 4). No such degenerative debris was evident in the striatum of the control animal. We also found a vigorous glial response (Fig. 4) in adjacent striatal tissue sections processed for glial fibrillary acidic protein (GFAP) immunocytochemistry (*13*).

We next explored the possibility that monkeys with MDMA-induced dopaminergic neurotoxicity (with no evidence of Parkinsonism) are at increased risk for the development of motor dysfunction secondary to dopamine depletion (*13*). Monkeys ($n = 3$) received a challenge dose regimen of alpha-methyl-para-tyrosine (AMPT) 1 week before and 1 week after MDMA treatment. Using a dosage regimen of AMPT that gradually reduces brain dopamine concentrations, we hoped to model the progressive decline in brain dopaminergic function that occurs with normal aging (*15*). Compared to their baseline, monkeys were more sensitive to AMPT-induced motor dysfunction 1 week after MDMA treatment (fig. S3).

We report severe, functionally significant dopaminergic neurotoxicity, along with more modest serotonergic neurotoxicity, in primates treated with doses of MDMA modeled after those commonly used by recreational MDMA users. Earlier studies in nonhuman primates have generally involved administration of higher MDMA doses (5 or 10 mg/kg) twice daily (morning and evening) for 4 consecutive days. These dosage regimens typically engendered more severe but highly selective toxicity toward brain serotonin neurons, with no long-term effects on brain dopamine neurons (*16–18*). Because the drug regimens used in previous studies did not model those used by most MDMA users, the possibility remained that occasional MDMA

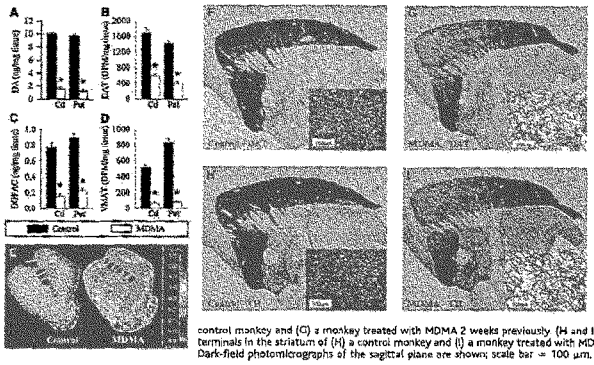

Fig. 2. Effect of MDMA treatment on striatal concentrations of (A) dopamine (DA), (B) [^{3}H]WIN35,428–labeled DAT, (C) DOPAC, and (D) radioisotope [^{3}H]MTB2–labeled vesicular monoamine transporter-2 (VMAT) in squirrel monkeys examined 2 weeks after MDMA treatment. (E) [^{125}I]RTI-121–labeled DAT in coronal section of a control monkey and a monkey treated with MDMA 2 weeks previously. The scale on the right shows the density of binding sites designated by color expressed in nCi/mg of tissue. (F and G) DAT-IR axons and axon terminals in the striatum of (F) a control monkey and (G) a monkey treated with MDMA 2 weeks previously. (H and I) TH-IR axons and axon terminals in the striatum of (H) a control monkey and (I) a monkey treated with MDMA 2 weeks previously. Dark-field photomicrographs of the sagittal plane are shown; scale bar = 100 μm.

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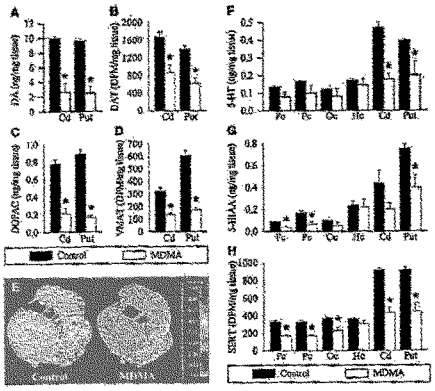

Fig. 3. Effect of MDMA treatment on striatal concentrations of (A) dopamine, (B) [^{3}H]WIN35,428–labeled DAT, (C) DOPAC, and (D) [^{3}H]HTBZ–labeled VMAT in baboons examined 2 weeks after MDMA treatment. (E) [^{125}I]RTI-121–labeled DAT in a coronal section of a control baboon and a baboon treated with MDMA 2 weeks previously. The scale on the right shows the density of binding sites designated by color expressed in nCi/mg of tissue. (F) Serotonin (5-HT), (G) 5-HIAA, and (H) SERT in baboons 2 weeks after MDMA treatment. (I) [^{125}I]RTI-55–labeled SERT in a coronal section of a control baboon and a baboon treated with MDMA 2 weeks previously. The scale on the right shows the density of binding sites designated by color expressed in nCi/mg of tissue.

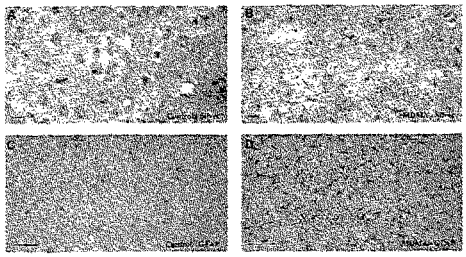

Fig. 4. Silver-stained coronal sections through the caudate nucleus of (A) a control monkey and (B) a monkey treated with MDMA (one dose of 2 mg/kg at 3-hour intervals, three times) 3½ days previously. Fine argyrophilic debris in the MDMA-treated monkey is characteristic of axon terminal degeneration, as demonstrated by the Fink-Heimer method (*14*). Scale bar = 10 μm. (C) Paucity of GFAP-IR cells in the caudate nucleus of a control monkey and (D) marked increase in the number of GFAP-IR cells in the striatum of a monkey treated with MDMA 3½ days previously. Scale bar = 10 μm.

users might not be at risk for neurotoxic injury. The present results, however, indicate that even individuals who use MDMA on one occasion may be at risk for substantial brain injury if they use two or three sequential doses, hours apart, as is often the case in recreational settings.

In the present studies, MDMA was given by a systemic route (subcutaneously in squirrel monkeys and intramuscularly in baboons), whereas humans generally take MDMA orally. It is possible that humans are at a decreased risk for neurotoxic injury because of differences in the route of administration. However, in the case of MDMA, oral administration offers little or no significant neuroprotection (*19–22*). Even if some degree of protection were afforded by oral administration, the profound loss of dopaminergic neuronal markers seen in both primate species suggests that significant neurotoxicity would still occur. Moreover, individual doses of MDMA used in this study are lower than those typically used by humans (1.6 to 2.4 mg/kg), once adjusted with interspecies dose scaling methods (*23*). Hence, any protection that might be associated with oral administration would likely be offset by increasing the dose of MDMA used in this study to the human equivalent. It is not uncommon for recreational MDMA users to use repeated doses of the drug on more than one occasion or more than two or three repeated doses per session.

The present findings challenge the commonly held notion that MDMA is a selective brain serotonin neurotoxin and carry important public health and scientific implications. Based on MDMA use pattern, there may be two separate MDMA cohorts: those with selective brain serotonergic neurotoxicity and those with combined serotonergic and more severe dopaminergic neural injury. It will be exceedingly important to consider this when attempting to identify and interpret functional consequences of MDMA use in humans. Cognitive abnormalities identified in MDMA users (*24–26*) may be related, at least in part, to dopaminergic rather than serotonergic neurotoxicity. The present findings also have implications for efforts aimed at identifying the mechanisms of MDMA neurotoxicity. Previous studies have identified a metabolite of MDMA that might be responsible for its neurotoxic effects, the 6-hydroxydopamine analog 2-(methylamino)-1-(2,4,5-trihydroxyphenyl) propane (*27–29*). Because this toxic metabolite induced both dopaminergic and serotonergic neurotoxicity, and because MDMA was believed to be a selective serotonin neurotoxin, it received little further attention. This 6-hydroxydopamine analog of MDMA obviously warrants closer scrutiny as a potential mediator of MDMA neurotoxicity.

The development of profound dopaminergic neurotoxicity after two or three sequential

MDMA doses of 2 mg/kg each leads one to question what distinguishes this particular drug regimen from the 4-day, twice daily, higher-dose regimen that engenders selective serotonergic neurotoxicity (*16–22*). One possibility is that the nonlinear pharmacokinetic profile of MDMA, such as that demonstrated in humans in the setting of closely spaced repeated dosing (*30, 31*), leads to prolonged elevated brain levels of MDMA (or its metabolites) and that protracted exposure to MDMA renders dopamine neurons vulnerable to its toxic effects. An alternative (although not mutually exclusive) explanation is that repeated closely spaced doses of MDMA lead to higher elevations in body temperature, which is known to augment MDMA neurotoxicity (*32*). Additional studies are needed to evaluate these possibilities, in addition to alternative hypotheses.

In light of the present findings, and given the fact that MDMA use is widespread and increasing, one might ask why more cases of MDMA-induced Parkinsonism (*33*) have not been reported. There are multiple potential explanations, but only two will be mentioned. First, Parkinsonism does not generally become clinically apparent until more than 70 to 80% of brain dopamine has been depleted. Therefore, substantial MDMA-induced dopaminergic neurotoxicity could occur yet remain occult until unmasked by other processes (such as drug-induced interference with dopaminergic neurotransmission or decline in brain dopamine with advancing age). Second, until now, the potential for MDMA to damage brain dopamine neurons in primates has not been appreciated and, therefore, MDMA neurotoxicity has not been considered in the differential diagnosis of Parkinsonism in young adults. It is possible that some of the more recent cases of suspected young-onset Parkinson's disease might be related to MDMA exposure but that this link has not been recognized.

These findings suggest that humans who use repeated doses of MDMA over several hours are at high risk for incurring severe brain dopaminergic neural injury (along with significant serotonergic neurotoxicity). This injury, together with the decline in dopaminergic function known to occur with age (*15*), may put these individuals at increased risk for developing Parkinsonism and other neuropsychiatric diseases involving brain dopamine/serotonin deficiency, either as young adults or later in life.

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Supporting Online Material
www.sciencemag.org/cgi/content/full/297/5590/2260/DC1
Materials and Methods
Figs. S1 to S3
References and Notes

29 May 2002; accepted 14 August 2002

Conversion of Unc104/KIF1A Kinesin into a Processive Motor After Dimerization

Michio Tomishige, Dieter R. Klopfenstein, Ronald D. Vale*

Unc104/KIF1A belongs to a class of monomeric kinesin motors that have been thought to possess an unusual motility mechanism. Unlike the unidirectional motion driven by the coordinated actions of the two heads in conventional kinesins, single-headed KIF1A was reported to undergo biased diffusional motion along microtubules. Here, we show that Unc104/KIF1A can dimerize and move unidirectionally and processively with rapid velocities characteristic of transport in living cells. These results suggest that Unc104/KIF1A operates in vivo by a mechanism similar to conventional kinesin and that regulation of motor dimerization may be used to control transport by this class of kinesins.

Caenorhabditis elegans Unc104 and the mouse ortholog KIF1A are kinesin motors that transport synaptic vesicle precursors along microtubules from the neuronal cell body to the nerve terminal (*1–3*). For such long-range transport to be efficient, organelles that encounter a microtubule must move processively. Conventional kinesin, which belongs to a different subfamily of vesicle-transporting kinesins, is dimeric and uses its two motor domains in a coordinated manner to take successive, unidirectional 8-nm steps along the microtubule without dissociating (*4*). However, KIF1A (*2*) and Unc104 (*3*) are monomeric in solution and are thought to operate using a different motility mechanism, because a single KIF1A motor domain has been shown to undergo biased diffusional movement along the microtubule (*6*). A novel processivity mechanism was proposed that involves an electro-

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U.S. Department of Justice
Drug Enforcement Administration
Www.dea.gov

NEWS RELEASE

September 19, 2002
For further information, contact:
DEA Public Affairs: 202-307-7977

"DATE RAPE" DRUG SOLD OVER THE INTERNET
More than 80 U.S. Cities Targeted by International Operation

Attorney General John Ashcroft today joined DEA Director Asa Hutchinson to unveil an unprecedented takedown of Internet-based drug-trafficking operations. Operation Webslinger, a multi-jurisdictional investigation, targeted the illegal internet trafficking of "date rape" drugs such as GHB and its derivatives, GBL and 1,4 Butanediol (1,4 BD).

The Drug Enforcement Administration, together with the U.S. Postal Inspection Service, U.S. Customs Service, Internal Revenue Service, Federal Bureau of Investigation, the Royal Canadian Mounted Police, and the Ontario Police Department, announced the arrest of 115 individuals in 84 cities across the United States and Canada.

GHB, GBL, and 1, 4 Butanediol (1,4 BD) are abused to produce euphoria, intoxication, and hallucinogenic states, and for their alleged role as a muscle growth hormone. They are also used as "date rape" drugs, acting as central nervous system depressants. Odorless and colorless, the drugs cause drowsiness, dizziness, loss of consciousness, and loss of inhibition, as well as memory impairment--which can make the prosecution of rape cases difficult when victims are given these drugs. Higher doses of these substances will cause unconsciousness, seizures, severe respiratory depression, coma, and even death.

"This takedown is a dose of harsh reality for drug traffickers who seek to exploit the vast markets and anonymity of cyberspace," said Attorney General Ashcroft. "Our campuses, our neighborhoods, and our communities are safer places for young women today because cyberspace just got more dangerous for drug traffickers."

DEA Director Asa Hutchinson added, "With millions of people having quick and easy access to the internet, the buying and selling of deadly drugs and chemicals from the web should not, and will not, be as simple as point-and-click. E-traffickers can expect to face the same justice the old-fashioned drug dealers face."

This two-year investigation began as a result of increasing seizures of GBL and 1,4 BD. It represents law enforcement's most significant national operation targeting organizations trafficking in GHB, GBL, and 1,4 BD. Operation Webslinger is also the most

significant enforcement effort targeting drug traffickers using the internet to buy and sell dangerous drugs and chemicals.

Operation Webslinger encompasses four primary investigations in St. Louis, MO; Detroit, MI and San Diego, CA; Mobile, AL and Sparta, TN; and Buffalo, NY and Quebec City, Canada. These investigations targeted individuals and organizations supplying large quantities of GHB, GBL, and/or 1,4 BD ordered over the internet and delivered by the mail. From these four investigations, agents developed leads that led to the identification and arrest of individuals across the country involved in buying and selling these drugs. All totaled, agents conducted enforcement operations in over 80 U.S. cities with drug seizures that could have yielded more than 25 million dosage units.

Chief U.S Postal Inspector Lee Heath added, "The nationwide sweep to apprehend the customers of Pelchat Labs began yesterday and is continuing. Postal Inspectors have made controlled deliveries in locations all over the country and more arrests are expected."

U.S. Customs Assistant Commissioner for Investigations John Varrone said, "Operation Webslinger was unprecedented in that it combined the best investigative techniques of numerous federal agencies and Canadian authorities. I am especially proud of the U.S. Customs agents in Buffalo who played a major role in this investigation. Customs agents seized more than 750 packages containing GBL, helped shut down an internet site selling this substance, seized three labs, and arrested 35 individuals."

FBI Director Robert S. Mueller, III stated, "This investigation strikes a blow to those who deal these drugs, which pose a danger to young people across the nation. Like any illicit drug, a consequence of use is death, and we will continue to work together with our law enforcement partners to combat this problem."

Operation Webslinger was coordinated by the Drug Enforcement Administration's joint law enforcement program called the Special Operations Division, which is comprised of agents and analysts from the DEA, FBI, USCS, and IRS, as well as attorneys from the Department of Justice's Criminal Division. Additionally, numerous state and local agencies across the United States provided invaluable service leading to the successful outcome of this operation.

For additional information, please contact Special Agents Will Glaspy or Thomas Hinojosa at DEA's Office of Public Affairs at (202) 307-7977.

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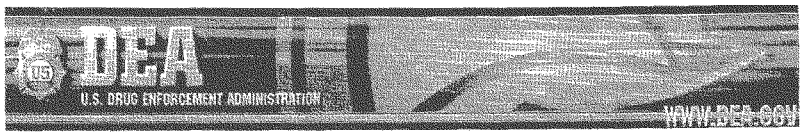
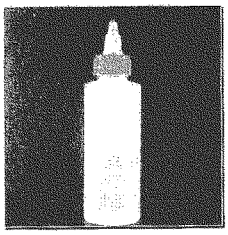


September 2002

Factsheet: GHB

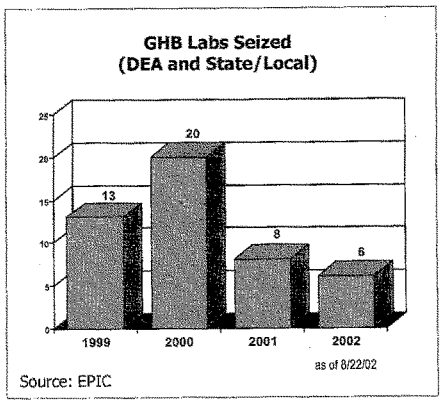
GHB is the acronym for Gamma Hydroxybutyrate which occurs naturally in the body in minute amounts. Law enforcement within the past several years have seen a dramatic increase in the number of incidents involving GHB, GBL and BD. GBL, Gamma-Butyrolactone, and BD (1,4 Butanediol) are very similar to GHB and produce similar effects in humans once ingested. In the illegal drug trade and Rave community, all three are commonly referred to as "G." GHB is abused to produce euphoric, intoxication, and hallucinogenic states, and for its alleged role as a growth hormone releasing agent to stimulate muscles. Some users also report that it is an aphrodisiac.

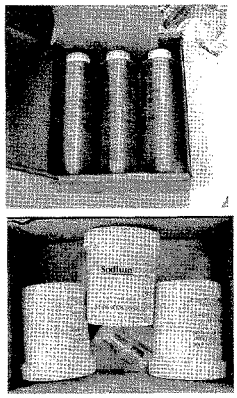


Squeeze bottle: GHB forms bubbles when shaken.

GHB is a central nervous system depressant that causes drowsiness, dizziness, nausea, loss of inhibition, memory loss, and visual disturbances. At higher dosages unconsciousness, seizures, severe respiratory depression, coma, and even death. DEA has documented 72 deaths relating to GHB. GHB became a schedule I controlled substance on March 13, 2000.

GHB, GBL, and BD have been used to assist in the commission of sexual assaults because they render the victim incapable of resisting, and often cause memory problems. For this reason, GHB is commonly referred as a "Date-Rape Drug." These drugs are metabolized quickly and are difficult to detect. Victims may not be aware they ingested a drug or were sexually assaulted until 8–12 hours later. Because the victim's memory is not intact, there may be little or no physical or toxicological evidence to support the claim that the sexual assault was facilitated by use of a drug.





Seized packages of GHB.

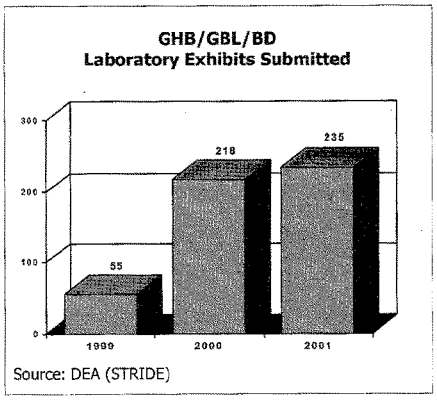
GHB was first synthesized in the 1920s, and was under development as an anesthetic agent in the 1950s and 1960s, but no commercial U.S. products were developed. It is marketed in some European countries as an adjunct to anesthesia. However, it was banned by the FDA in 1990 after being marketed in health food stores as a sleeping aid and body building supplement. GHB was recently approved by the FDA on July 17, 2002 as a treatment for a rare form of narcolepsy.

In 1994 there were 55 emergency room admissions nationwide related to GHB. In 2000, the most recent statistical year, there were 4,969 emergency room admissions reported. Since 1990, the DEA has documented over 12,600 overdoses and law enforcement encounters.
GHB is a clear liquid which is commonly ingested or swallowed; it is a sodium salt product that is easily dissolved in water or other liquids and is invisible, odorless, and somewhat salty tasting; thus its popularity for slipping it into any liquid drink of a victim. It is also highly addictive.

GHB is commonly sold for $10 per dose in liquid form, usually in capfuls or swigs, which range from approximately 1/5 of an ounce (capful) to approximately 1/3 of an ounce (swig). GHB is commonly diluted with water from a ratio of approximately 5 to 20 parts water. The effects of GHB last from approximately 3 to 6 hours.

GBL (Gamma-Butyrolactone) is an industrial solvent used in the production of GHB. GBL when ingested, converts into GHB within humans. On February 18, 2000, GBL became a List I chemical. GBL is often sold and marketed in place of GHB. GBL is commonly used in the manufacture of paint strippers, surface cleaners, and other industrial and manufacturing processes. GBL is not a household product and prior to it's scheduling as a List I chemical, and had been marketed as a dietary supplement.

BD (1,4 Butanediol) is an industrial solvent which, when ingested, also turns into GHB in the body. BD is marketed and sold as GHB over the Internet as a printer, cleaner, and nail polish remover. At present, BD is surpassing GBL and GHB as the drug of choice due to its availability. BD is regarded as a controlled substance analogue because it has a chemical structure and produces pharmacological effects similar to GHB.



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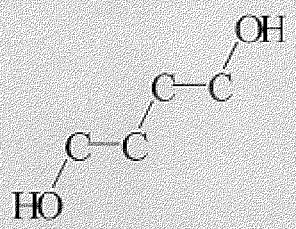
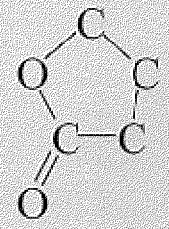
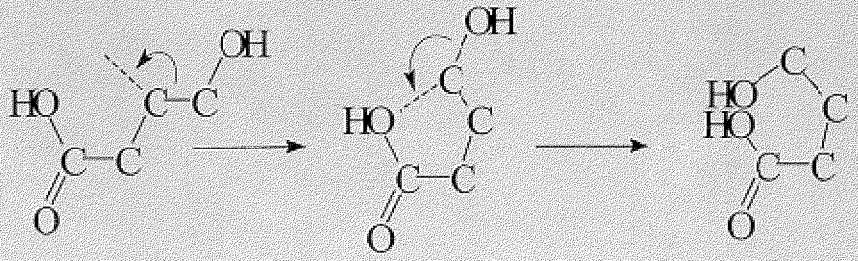


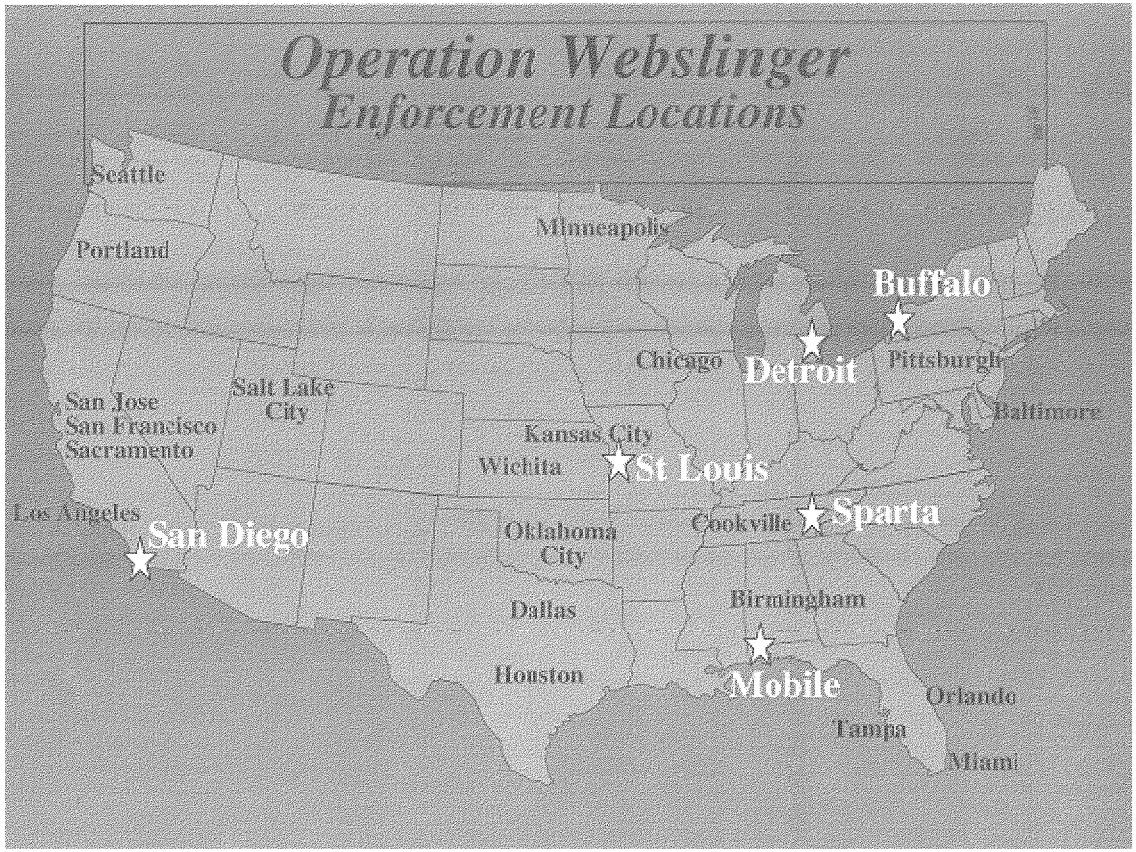
1,4-Butanediol (BD)



gamma Butyrolactone (GBL)



gamma Hydroxybutyric Acid (GHB)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Toner Cleen Cloth	One soft cloth saturated with Toner Cleen solution cleaner	$40.99
Toner Cleen Fluid (Blue)	One 16 oz. botte of Toner Cleen solution cleaner	$24.95
Toner Cleen Solution (Purple)	One 16 oz. botte of Toner Cleen solution cleaner	$33.99
Toner Cleen Genie (Green)	One 16 oz. botte of Toner Cleen solution cleaner	$49.95
Super Toner Cleen (Red)	One 16 oz. botte of Toner Cleen solution cleaner	$74.99
Toner Cleen Concentrate	One 2 oz. bottle of Toner Cleen concentrate that will make up to eight 16 oz. bottles of **very mild** cleaning solution	$48.99
Toner Cleen Concentrate	One 4 oz. bottle of Toner Cleen concentrate that will make up to sixteen 16 oz. bottles of **very mild** cleaning solution	$88.99
Special Offers		
Toner Cleen 2 oz. Bottle Packages		
Toner Cleen concentrate 3-Pak	Three 2 fl. oz. bottles of Toner Cleen concentrate	$107.99
Toner Cleen concentrate 6-Pak	Six 2 fl. oz. bottles of Toner Cleen concentrate	$199.99
Toner Cleen concentrate 12-Pak	Twelve 2 fl. oz. bottles of Toner Cleen concentrate	$364.99
Toner Cleen 4 oz. Bottle Packages		
Toner Cleen concentrate 3-Pak	Three 4 fl. oz. bottles of Toner Cleen concentrate	$215.00
Toner Cleen concentrate 6-Pak	Six 4 fl. oz. bottles of Toner Cleen	$440.00

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Sodium

Gamma Hydroxy Butyrate (GHB)

Squeeze bottle
GHB forms bubbles when shaken