

# The D.A.W.N. report

OCTOBER 2002

## Club Drugs, 2001 Update

### In Brief

This issue of *The DAWN Report* provides an update of information on emergency department (ED) visits related to the abuse of club drugs. The first such report was published in December 2000 and presented estimates for 1994 through 1999. This report extends those trends through 2001.

The term “club drugs” came from the association of these drugs with “raves” and dance clubs. In this update, 5 drugs<sup>1</sup> are included:

- GHB (gamma hydroxy butyrate);
- Ketamine;
- LSD (lysergic acid diethylamide);
- MDMA (methylenedioxymethamphetamine, the drug commonly known as Ecstasy); and
- Methamphetamine.

According to DAWN,

- ED visits associated with club drugs continue to be relatively rare. Collectively, they accounted for 4 percent of total ED drug-related visits in the coterminous U.S. in 2001.
- Methamphetamine continues to account for the largest share of ED mentions of club drugs and continues to be concentrated in the western metropolitan areas of Los Angeles, Phoenix, San Diego, San Francisco, and Seattle. However, the next highest rate of methamphetamine mentions in 2001 was found in Minneapolis.
- In 2001, MDMA (Ecstasy) was the next most frequent club drug in ED mentions, followed by GHB, LSD, and Ketamine. This is a change from 1999, when LSD ranked second, followed by GHB, MDMA, and Ketamine.
- As reported previously, ED visits involving club drugs usually involve multiple substances, especially alcohol, marijuana, and other club drugs. Co-occurring cocaine and heroin also appear in substantial numbers.
- The long-term trends for GHB, Ketamine, and MDMA have been upward, whereas LSD mentions have declined significantly since 1994.
- ED visits involving GHB and MDMA demonstrated remarkably similar upward trends from 1994 to 1999, but from 1999 to 2001, MDMA mentions continued upward while GHB leveled off.

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## Trends in Club Drugs in ED Visits, National Estimates: 1994-2001

Figure 1 shows the trend in ED visits related to the abuse of club drugs from 1994 to 2001. For comparison, Figure 1 also shows trends in ED visits and ED drug mentions overall.

For 2001, DAWN estimated almost 15,000 ED mentions of methamphetamine, over 5,500 mentions of MDMA, over 3,000 mentions GHB, almost 3,000 mentions of LSD, and just under 700 mentions of Ketamine.

Although mentions of GHB, Ketamine, and MDMA rose dramatically (over 2,000% each) from 1994 to 2001, only MDMA mentions increased from 1999 to 2001, and none of the club drugs showed significant changes from 2000 to 2001. LSD mentions, which had been quite stable from 1994 to 1999, dropped significantly from

1999 to 2001. Mentions of methamphetamine, which have often shown year-to-year volatility, showed no significant change in 2001 when compared with 1994, 1999, or 2000.

Although some of the changes over time are statistically significant, even the largest of these numbers is quite small. Drug-related ED visits are relatively infrequent—all drug-related ED visits (638,484 in 2001) represent less than 1 percent of the more than 100 million ED visits overall in 2001. By comparison, ED visits involving club drugs are truly rare events, occurring in only 4 percent of drug-related visits. In 2001, the most frequent of the club drugs, methamphetamine, appeared in 2 percent of ED drug visits, and MDMA occurred in less than 1 percent. In contrast, the most frequent drugs reported to DAWN—alcohol-in-combination with other drugs and cocaine—appear in 34 and 30 percent of ED drug visits, respectively (OAS, 2002).

## Club Drugs in Multi-drug ED Visits: 2001

According to DAWN, most ED visits involving club drugs also involve other drugs (Table 1). In 2001, other drugs were present in most ED visits (86%) involving MDMA; about three-quarters of ED visits involving GHB, Ketamine, or LSD; and more than half (55%) of visits involving methamphetamine.

Alcohol is the most frequently mentioned other substance in visits with GHB (54%), MDMA (48%), and methamphetamine (23%). Alcohol ranks second in visits involving LSD (36%) and Ketamine (33%). Marijuana is the most common other drug in visits involving LSD (55%) and is mentioned in a high percentage of visits with MDMA (33%) and methamphetamine (22%). Cocaine co-occurs in visits involving Ketamine (14%), LSD (25%), MDMA (29%), and

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**TABLE 1**

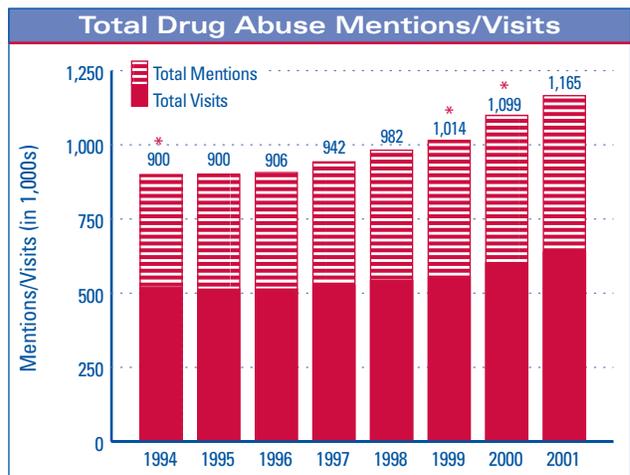
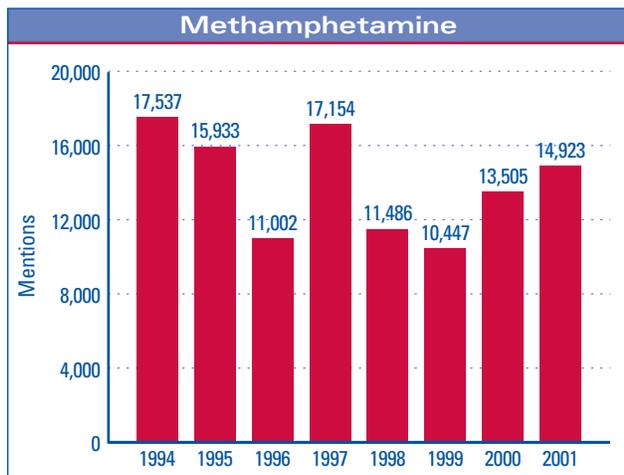
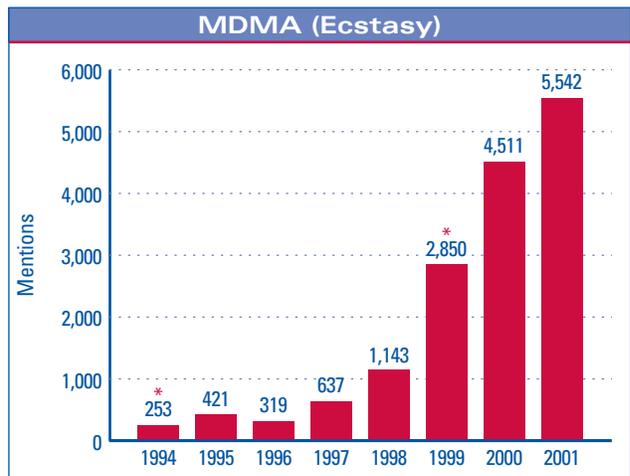
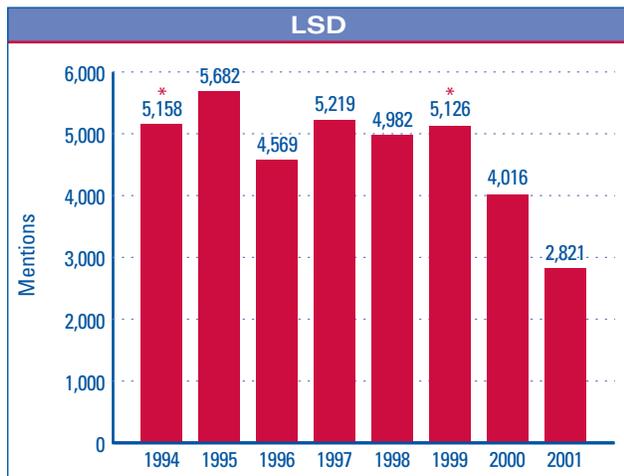
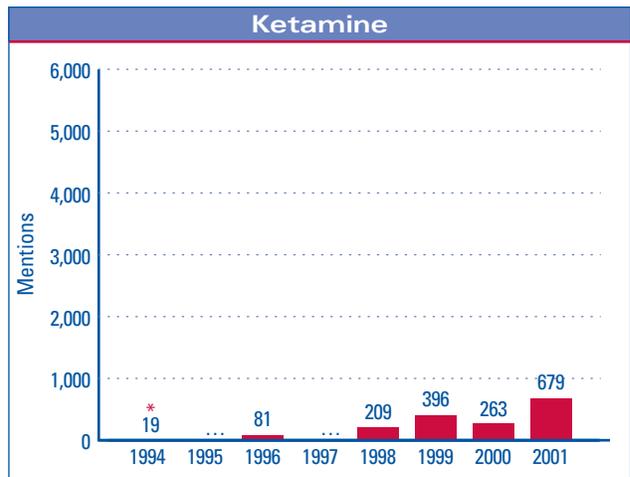
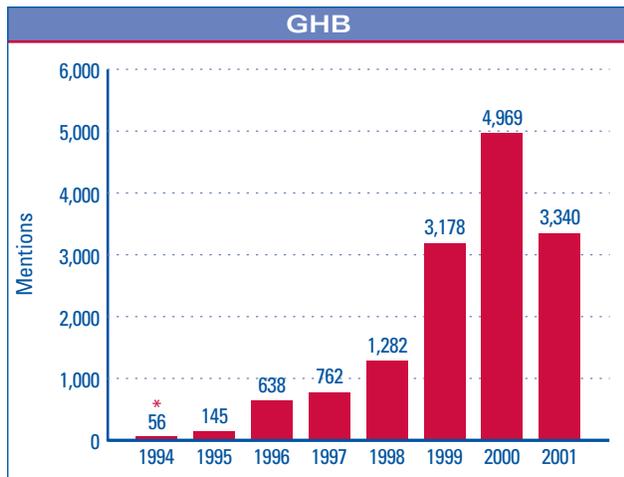
### Presence of other drugs in ED visits involving club drugs: Estimates for the coterminous U.S.: 2001

Drug categories and episode characteristics	GHB	Ketamine	LSD	MDMA	Methamphetamine
<b>Drug concomitance</b>					
Single-drug visits	870 (26%)	175 (26%)	671 (24%)	799 (14%)	6,715 (45%)
Multi-drug visits	2,469 (74%)	504 (74%)	2,150 (76%)	4,743 (86%)	8,208 (55%)
<b>TOTAL CLUB DRUG VISITS</b>	<b>3,340</b>	<b>679</b>	<b>2,821</b>	<b>5,542</b>	<b>14,923</b>
<b>Selected drug combinations</b>					
GHB		16 (2%)	2 (0%)	393 (7%)	55 (0%)
Ketamine	16 (0%)		56 (2%)	262 (5%)	65 (0%)
LSD	2 (0%)	56 (8%)		449 (8%)	82 (1%)
MDMA (Ecstasy)	393 (12%)	262 (39%)	449 (16%)		279 (2%)
Methamphetamine	55 (2%)	65 (10%)	82 (3%)	279 (5%)	
Alcohol-in-combination	1,797 (54%)	222 (33%)	1,022 (36%)	2,666 (48%)	3,424 (23%)
Amphetamines	111 (3%)	8 (1%)	89 (3%)	234 (4%)	130 (1%)
Cocaine	174 (5%)	93 (14%)	713 (25%)	1,606 (29%)	1,968 (13%)
Heroin	16 (0%)	117 (17%)	194 (7%)	455 (8%)	537 (4%)
Marijuana	475 (14%)	85 (12%)	1,554 (55%)	1,836 (33%)	3,338 (22%)

SOURCE: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2001 (03/2002 update).

**FIGURE 1**

**ED mentions for club drugs and total drug abuse mentions and visits: 1994-2001**



NOTE: These estimates are based on a representative sample of non-Federal, short-stay hospitals with 24-hour emergency departments (EDs) in the coterminous U.S. Dots (...) indicate that an estimate with a relative standard error greater than 50% has been suppressed. An asterisk (\*) indicates that the estimate for 1994, 1999, or 2000 was significantly different ( $p < 0.05$ ) than the estimate for 2001.

SOURCE: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2001 (03/2002 update).

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methamphetamine (13%). Heroin (17%) appears even more frequently than cocaine in visits involving Ketamine.

Some ED visits involve multiple club drugs, especially MDMA, which is frequently mentioned in visits involving Ketamine (39%), LSD (16%), and GHB (12%). Few ED visits (0.5%) involve more than 2 club drugs.

## Characteristics of Patients, ED Visits: 2001

The common wisdom is that club drugs tend to be used by young people. DAWN data continue to support this view. Whereas DAWN estimates show that 30 percent of ED visits involve patients age 25 and under, at least 75 percent of LSD and MDMA mentions and over 55 percent of GHB mentions are attributed to ED patients 25 and under.<sup>2</sup>

- Adolescents age 12 to 17, who account for only 10 percent of total drug-related ED visits, account for 34 percent (952) of visits involving LSD.
- Young adults age 18 to 25, who account for 20 percent of total drug-related ED visits, are disproportionately represented in visits involving MDMA (61%, 3,365 mentions), GHB (58%, 1,940 mentions), LSD (48%, 1,348 mentions), and methamphetamine (31%, 4,651 mentions).
- Taking population size into account, the highest rates of ED visits involving methamphetamine were found in patients age

## About DAWN

The **Drug Abuse Warning Network (DAWN)** is a national surveillance system that collects data on drug-related visits to emergency departments (ED) and drug-related deaths reviewed by medical examiners and coroners. Data on ED visits are collected from a national probability sample of non-Federal, short-stay hospitals, with oversampling in 21 major metropolitan areas. Data from the sample are used to generate estimates for the coterminous U.S. and the 21 metropolitan areas.

ED visits are reportable to DAWN if a patient between the ages of 6 and 97 was treated for a condition associated with intentional drug abuse, including recreational use, dependence, or suicide attempt. Visits involving chronic health conditions resulting from drug abuse are reportable. Abuse of prescription and over-the-counter medications is reportable. Adverse reactions associated with appropriate use of these drugs or accidental ingestion or inhalation of any drug are not reportable.

This report focuses only on 5 drugs of abuse. However, thousands of drugs are reported to DAWN each year. A more extensive list of drug estimates is available in other DAWN publications and is available online at [www.DAWNinfo.net](http://www.DAWNinfo.net).

26 to 29. Visit rates for MDMA and LSD tended to be highest among younger patients, particularly 18- and 19-year-olds.

Other club drugs do not appear to be as geographically concentrated, but the rates are so low that no firm conclusion is warranted.

## Variations Across Metropolitan Areas: 2001

Patterns of drug availability, usage, and therefore, the consequences of use tracked by DAWN, often show geographical variation. Measures based on rates per 100,000, rather than numbers of visits, facilitate comparisons across metropolitan areas by removing the confounding effect of population size. Nonetheless, conclusions based on small numbers associated with ED visits will be tentative at best.

We have discussed elsewhere<sup>3</sup> the geographic concentration of ED mentions of methamphetamine in metropolitan areas in the west. The highest rates per 100,000 population are found in San Francisco (39), San Diego (27), Phoenix (21), Seattle (18), and Los Angeles (18). In 2001, Minneapolis followed these areas with a rate in the double digits (12) for the first time.

## Endnotes

<sup>1</sup> Estimates for flunitrazepam (Rohypnol), which were included previously, are not included here because the estimates have proven too imprecise in most years to be considered reliable. The criterion for exclusion is that the relative standard error exceeds 50 percent of the estimate.

<sup>2</sup> 2001 estimates for Ketamine by age group were too imprecise for publication.

<sup>3</sup> Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2002. *Emergency Department Trends From the Drug Abuse Warning Network, Final Estimates 1994-2001*, DAWN Series D-21, DHHS Publication No. (SMA) 02-3635, Rockville, MD.