

# The DAWN Report

APRIL 2004

## Benzodiazepines in Drug Abuse-Related Emergency Department Visits: 1995-2002

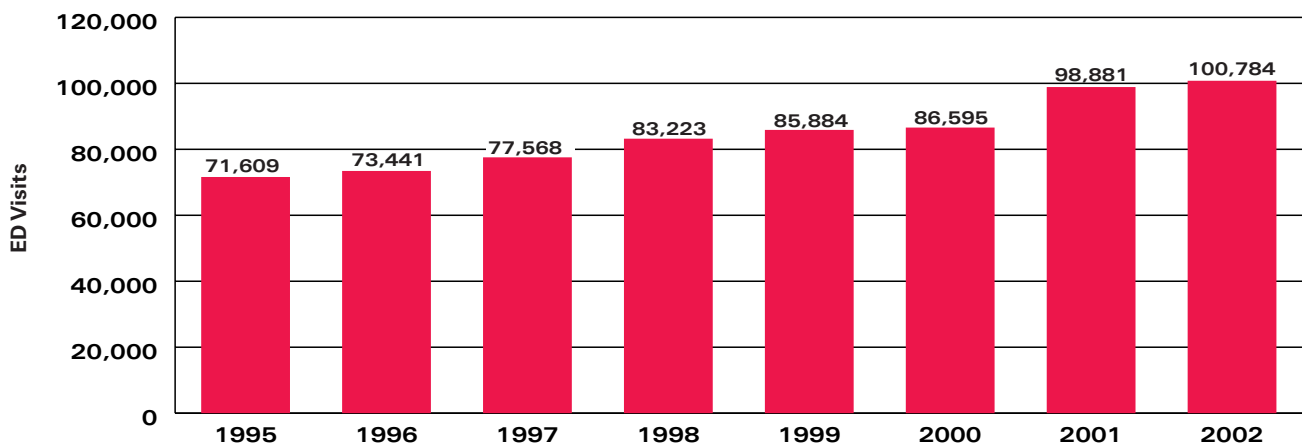
### In Brief

Benzodiazepines are psychotherapeutic sedatives used to treat anxiety, insomnia, and seizures. Examples of some common brands include Valium®, Xanax®, Librium®, and Ativan®.

- In 2002, over 100,000 drug abuse-related emergency department (ED) visits involved benzodiazepines.
- Drug abuse-related ED visits involving benzodiazepines increased 41 percent from 1995 to 2002.
- Alprazolam and clonazepam were the benzodiazepines most frequently reported in drug abuse-related ED visits in 2002. However, a third of total benzodiazepine mentions were reported only as “benzodiazepine,” with no specific drug name.
- Most benzodiazepine-related ED visits (78%) involved more than one drug.
- Alcohol was the substance most frequently reported with benzodiazepines in drug abuse-related ED visits.

FIGURE 1

Trends in benzodiazepine-involved ED visits: 1995-2002



Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2002 (3/2003 update).

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## Background

Currently, the abuse of benzodiazepines attracts less attention than the abuse of other prescription drugs, such as opiate pain medications. However, benzodiazepines were involved in over 100,000 drug abuse-related ED visits in 2002 and were the most frequently mentioned type of psychotherapeutic drug.

## Trends, 1995-2002

From 1995 to 2002, drug abuse-related ED visits involving benzodiazepines increased 41 percent, from 71,609 to 100,784 (Figure 1). In contrast, total drug abuse-related ED visits increased 31 percent.

Total benzodiazepine-related ED visits were stable from 2001 to 2002, but trends varied for individual drugs (Figure 2). Among the benzodiazepines that were specified by name, increases in ED visits were observed for alprazolam (62%) and clonazepam (33%) from 1995 to 2002. In 2002, 33 percent of

benzodiazepine mentions were not specified by name (*not otherwise specified, or NOS*).<sup>1</sup> This category of unnamed benzodiazepines increased 199 percent during that period, but it is not possible to know which drugs were responsible for the increase. Visits including diazepam, lorazepam, and temazepam were stable from 1995 to 2002, while visits involving chlordiazepoxide decreased by 74 percent. Visits including any of these drugs were stable from 2001 to 2002.<sup>2</sup>

In 2002, alprazolam was involved in a quarter of the benzodiazepine-related ED visits (27,659 visits). Clonazepam was involved in 16 percent of benzodiazepine-related ED visits (17,042 visits).

## Benzodiazepines and polydrug abuse

Over three-quarters (78%) of benzodiazepine-related visits involved 2 or more drugs (Figure 3). On average, 2 drugs were reported for each benzodiazepine-related ED visit.

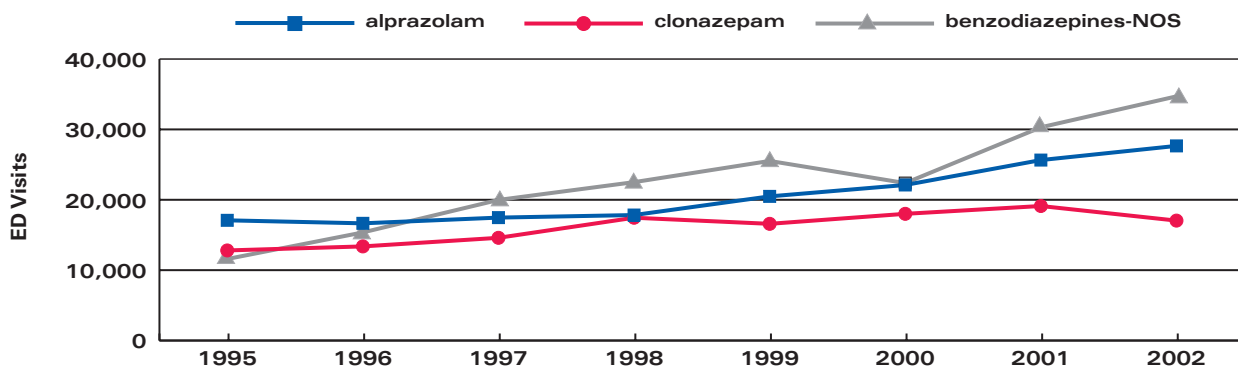
Benzodiazepines were most frequently combined with alcohol, illicit drugs, and opiate pain medications in drug abuse-related ED visits (Table 1). Alcohol was involved in more than twice as many benzodiazepine-related visits as marijuana, the second most frequently mentioned drug. Furthermore, when the specific drug combinations are ranked by frequency, alcohol appears in 8 of the top 15 combinations involving benzodiazepines.

When multiple drugs are involved in an ED visit, it is not always possible to determine which drug caused the visit, or if the visit resulted from the interaction between the drugs. It is possible that, in some of these ED visits, use of benzodiazepines was incidental to the visits.

Nonetheless, these findings highlight the problem of polydrug abuse involving benzodiazepines and suggest that prevention efforts will need to address the practice of combining prescription drugs with illicit drugs and alcohol.

FIGURE 2

### Benzodiazepines in drug abuse-related ED visits: Increases, 1995-2002



Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2002 (3/2003 update).

<sup>1</sup> This can occur because some screening tests do not differentiate between different types of benzodiazepines.

<sup>2</sup> Estimates for benzodiazepines not included in this report can be found in Table 2.6.0 in *Emergency Department Trends From the Drug Abuse Warning Network, Final Estimates 1995-2002*, available at: <http://DAWNinfo.samhsa.gov/>.

**TABLE 1**

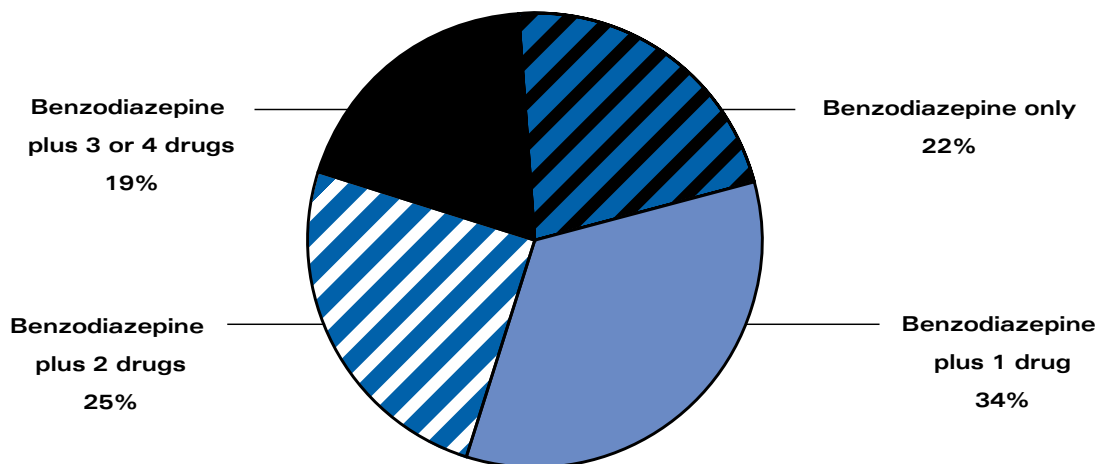
**Drugs most frequently combined with benzodiazepines: 2002**

Rank	Drug	Type of drug	Visits
1	alcohol		33,130
2	marijuana	illicit	14,795
3	cocaine	illicit	13,961
4	narcotic analgesics-NOS	narcotic analgesic	10,525
5	acetaminophen-hydrocodone	narcotic analgesic	5,653
6	heroin	illicit	4,040
7	amphetamine	illicit/stimulant	3,092
8	methadone	narcotic analgesic	3,013
9	oxycodone	narcotic analgesic	2,807
10	carisoprodol	muscle relaxant	2,643
11	barbiturates-NOS	sedative-hypnotic	2,579
12	zolpidem	sedative-hypnotic	2,425
13	paroxetine	antidepressant	1,902
14	acetaminophen-oxycodone	narcotic analgesic	1,743
15	acetaminophen	analgesic	1,649

Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2002 (3/2003 update).

**FIGURE 3**

**Frequency of polydrug use in benzodiazepine-involved ED visits: 2002**



Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2002 (3/2003 update).

## About DAWN

The **Drug Abuse Warning Network (DAWN)** is a national public health surveillance system that collects data on drug abuse-related visits to emergency departments (EDs) and drug abuse-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 a 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 and accidental ingestion or inhalation of any drug are not reportable.

In DAWN, drugs are described by their generic names. An index linking brand (trade) names with generic drug names is available at <http://DAWNinfo.samhsa.gov/>.

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