

NOTES: DRUG CLASSIFICATION



Top 8 Drug Categories

- ▣ Drugs come in various forms, and can be taken numerous ways. Some are legal and others are not. Drug abuse and misuse can cause numerous health problems, and in serious cases death can occur. Treatment for drug abuse is often sought to aid in recovery.



Types of Drugs

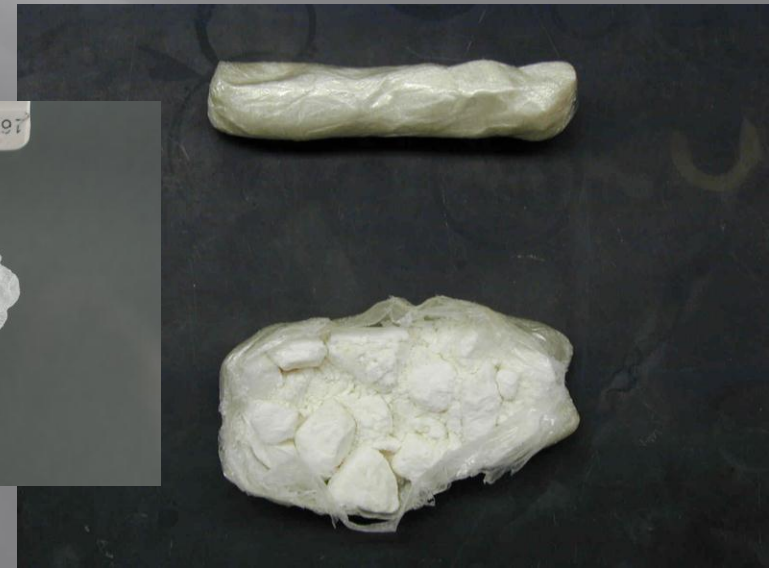
Most drugs fit into one or more of the following categories:

- Opiates or Narcotics
- Hallucinogens
- Depressants
- Stimulants
- Inhalants
- Canabinoids
- Anabolic Steroids
- Perscription Drugs



Stimulants

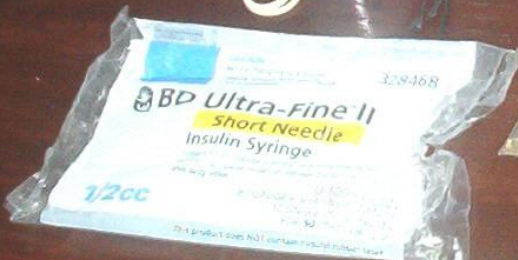
- ❑ These drugs speed up the body's nervous system and create a feeling of energy.
- ❑ Also called “uppers” because they make you feel very awake.
- ❑ Stimulants have the opposite effect of depressants. When the effects of a stimulant wear off, the user is typically left with feelings of sickness and a loss of energy.
- ❑ Constant use can compound the above symptoms.
- ❑ Types of drugs include:
 - Cocaine
 - **Methamphetamines**
 - Amphetamines
 - Ritalin
 - Cylert

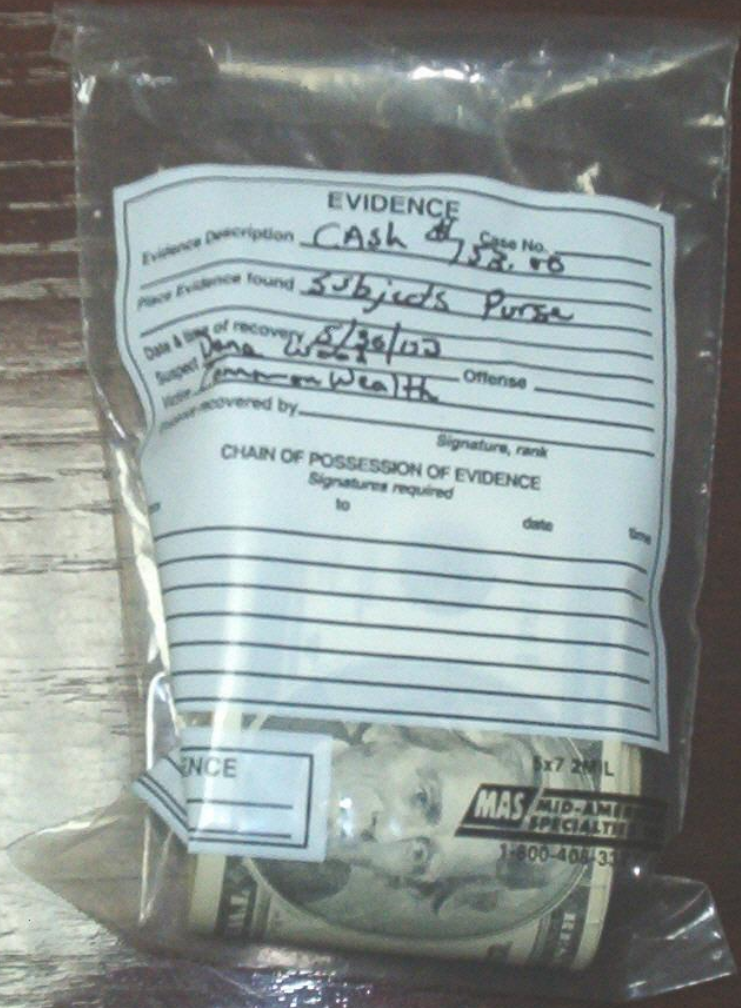


**PICTURES FROM A
BUST AT A
METH LAB**









EVIDENCE

Evidence Description CASH \$752.00 Case No. 752.00

Place Evidence found Subject's Purse

Date & time of recovery 8/30/12

Suspect Dana Wood Offense _____

Where recovered by _____

Signature, rank _____

CHAIN OF POSSESSION OF EVIDENCE

Signatures required _____

to _____ date _____ time _____

EVIDENCE

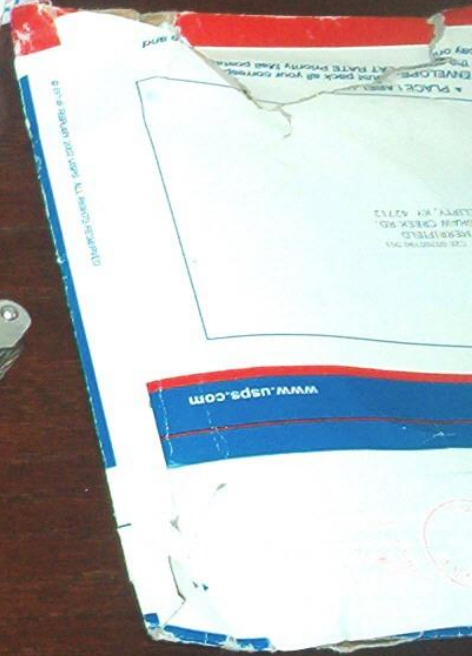
1x7 2M L

MAS MID-AMERICAN SPECIALTY

1-800-484-3333



Handwritten notes on a yellow sticky note, including the words "Blended", "the", and "the" repeated several times.





ASCO
NV-360

Coleman
Dual Fuel 335

15
METHAMPHETAMINE
AGENT
Methamphetamine
OR
Methamphetamine



Ex #3



Ex #2





Meth...

MONTANA METH PROJECT

1-888-366-6384

YOU'LL NEVER WORRY ABOUT
LIPSTICK ON YOUR TEETH AGAIN.

METH
NOT EVEN ONCE.

NotEvenOnce.com

© The Meth Project.

Depressants

- ❑ Depressants slow down activity in the CNS.
- ❑ Also called “downers” because they slow the body down and seem to give feelings of relaxation.
- ❑ Some depressants are available as prescription drugs to relieve stress and anger, although drowsiness is often a side effect.
- ❑ Types of drugs:
 - Barbiturates
 - Benzodiazepines
 - Flunitrazepam
 - GHB (Gamma-hydroxybutyrate)
 - Methaqualone
 - Alcohol
 - Tranquillisers



DEPRESSANTS slow messages between the body and brain.

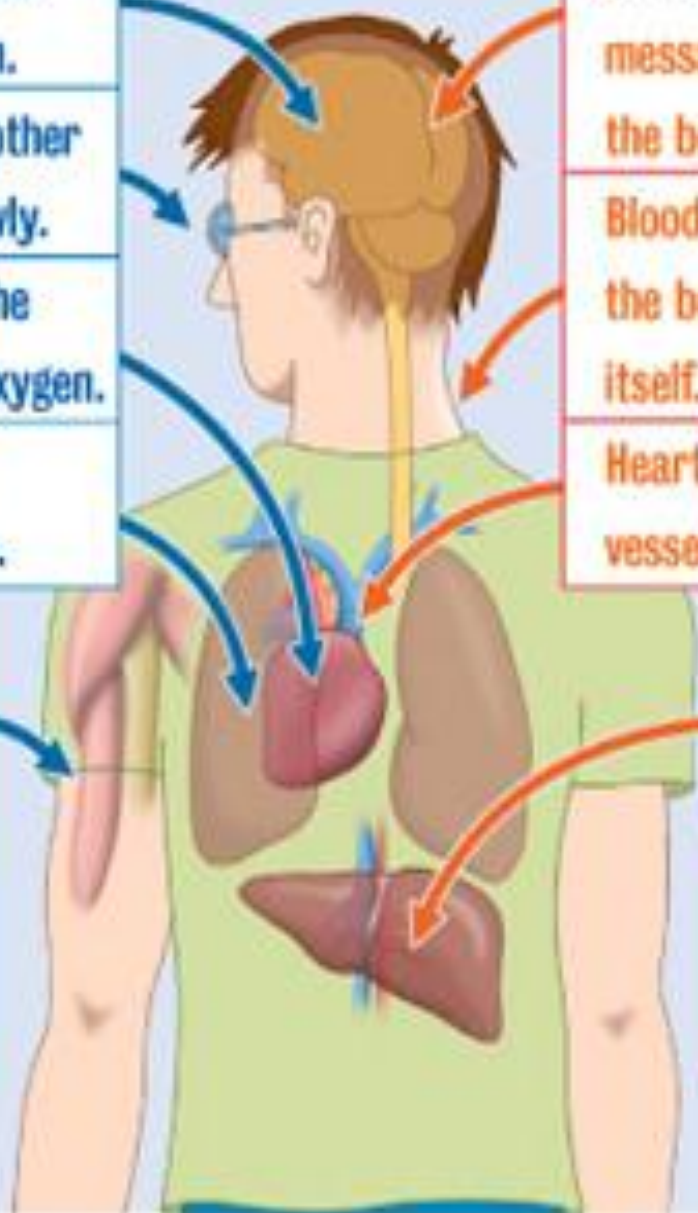
Signals from the eyes and other senses reach the brain slowly.

Heart rate drops, leaving the body with less energizing oxygen.

Breathing rate decreases; risk of lung infections rises.

Messages to muscles are slower; arms and legs can't move well.

RESULT: The body can't sense—or respond to—danger quickly.



STIMULANTS create fake messages in the brain, telling the body that it's under stress.

Blood to skin decreases; the body is less able to cool itself. Overheating is a risk.

Heart rate speeds up. Blood vessels to the heart constrict.

The liver releases sugar into the blood, reducing the body's energy stores.

RESULT: If real stress occurs, the body won't be able to respond.

Inhalants

- ❑ Inhalants are sniffed or huffed and give the user immediate results.
- ❑ Unfortunately, these immediate results can also result in sudden brain damage. When inhalants are taken, the body becomes deprived of oxygen, causing a rapid heart beat.
- ❑ Other effects include liver, lung and kidney problems, affected sense of smell, difficulty walking and confusion.
- ❑ Types of drugs include:
 - Glues
 - Paint thinner
 - Gasoline
 - Laughing gas
 - Aerosol sprays



Hallucinogens

- ▣ When taking hallucinogens, switching emotions is frequent.
- ▣ These drugs change the mind and cause the appearance of things that are not really there.
- ▣ Hallucinogens affect the body's self-control, such as speech and movement, and often bring about hostility.
- ▣ Other negative side effects of these drugs include heart failure, increased heart rate, higher blood pressure and changes in the body's hormones.
- ▣ Types of drugs include:
 - LSD (lysergic acid diethylamide)
 - Mescaline
 - Psilocybin
 - Cannabis
 - Magic Mushrooms



Class A

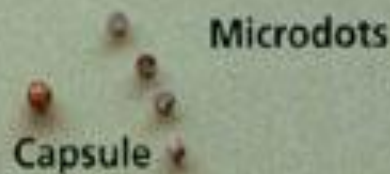
Hallucinogens

Tabs - LSD - ACID - Trips - Magic Mushrooms



Magic mushrooms

(become class A only when prepared for use)




Microdots

Capsule



LSD is often found impregnated onto paper squares many of which have printed designs

Scale: 5 mm 





PEYOTE



Magic Mushrooms



Cannabinoids

- ▣ These drugs result in feelings of euphoria, and cause confusion and memory problems, anxiety, a higher heart rate, as well as staggering and poor reaction time.
- ▣ Types of drugs include:
 - Hashish
 - Marijuana





Growing Marijuana in the Basement





Smoking Paraphernalia



Smoking Paraphernalia



Opioids & Morphine Derivatives (Narcotics)

- ▣ Opioids and morphine derivatives can cause drowsiness, confusion, nausea, feelings of euphoria, respiratory complications and relieve pain.
- ▣ Types of drugs include:
 - Codeine
 - Fentanyl and fentanyl analogs
 - Heroin
 - Morphine
 - Opium
 - Oxycodone HCL
 - Hydrocodone bitartrate, acetaminophen

Class A

Opiates/Opioids

Scag - Smack - Dragon - Tiger - Horse - Powder



Methadone liquid

Pethidine Morphine Diamorphine

Physeptone (tablets and ampoule) containing methadone

Typical packaging



Heroin powder

BLACK TAR HEROIN



Bags of Heroin



田 税 関 支 署
京 税 関 監 視 部
県 警 察 本 部 薬 物 対 策 課
警 察 本 部 薬 物 対 策 課
銃 器 課

Repeated injections may develop permanent slits in the skin

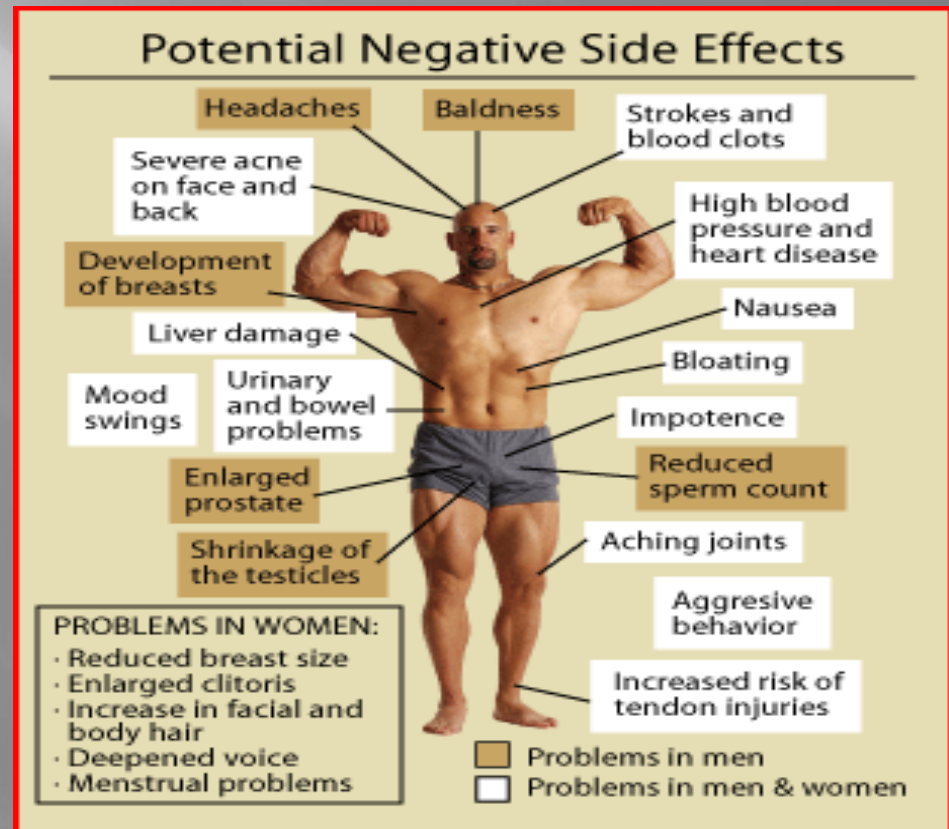


Skin Rash-common skin condition for addicts who shoot up



Anabolic Steroids

- ❑ Steroids are taken to improve physical performance as well as to enlarge muscles and increase strength.
- ❑ Negative effects of steroids include baldness, cysts, oily hair and skin, acne, heart attack, stroke and change in voice.
- ❑ Hostility is also a frequent side effect of anabolic steroids.
- ❑ Types of drugs include:
 - Anadrol
 - Oxandrin
 - Durabolin
 - Stanozol
 - Dianabol



Prescription Drugs

- ❑ Prescription drugs can be very helpful drugs when used properly and when under the guidance of a qualified physician.
- ❑ These drugs can be used as aids in surgery, to treat medical conditions and while controlling various symptoms.
- ❑ Misuse and abuse of prescription drugs however can be very dangerous.
- ❑ Types of drugs include:
 - Opioids: Codeine, Oxycodone, Morphine
 - Central nervous system depressants: barbiturates, benzodiazepines
 - Stimulants: dextroamphetamine, methylphenidate

Drugs World

Anti-Psychotics (tranquillizers)

Newer, second generation

Older, first generation

Strattera
Wellbutrin, Zyban
Ritalin

"Wakelfulness promoting"
drug given to soldiers
Prozac

Khat

Stimulants (uppers)

Used in legal highs
and "party pills"

Found in tea

Hmmm chocolate

Ecstasy, XTC

Found in the Amazonian
brew 'ayahuasca'

Found in magic mushrooms

Atypical
Clozapine
Olanzapine
Sulpiride
Risperidone
Quetiapine
Ziprasidone

Typical
Haloperidol
Thioridazine
Pimozide
Fluphenazine
Chlorpromazine
Perphenazine

NRIs
Atomoxetine
Bupropion
Methylphenidate

SSRIs
Fluoxetine
Paroxetine
Sertraline

MAOIs

Eugeroics
Adrafinil
Modafinil

Amphetamine
Cocaine
Cathinone
Ephedrine
Phentermine
Yohimbine

Piperazines
TFMPP
BZP

Methylxanthines
Caffeine
Theophylline
Theobromine

Phenethylamines
MDEA
MDA
MDMA
Methylone
2CB
DOM
Mescaline

Tryptamines
AMT
DMT
LSD
Psilocybin

Hallucinogens (trips)

CBD

Tetracyclics
Maprotiline
Trazodone

Cholinergics
Nicotine
Betel Nut
Muscarine

Cannabis

THC
Ibogaine

Salvinorin A

Ibotenic Acid
Muscimol

Deliriant
Scopolamine
Atropine
Hyoscamine

Benzodiazepines
Alprazolam
Diazepam
Flunitrazepam
Temazepam
Lorazepam

Sedative Hypnotics
Alcohol
Ether
Barbiturates
Chloroform
Methaqualone

Narcotic Analgesics
Codeine
Fentanyl
Heroin
Hydrocodone
Methadone
Morphine
Opium
Oxycodone

GHB
GBL

Kavalactones

THC

Dissociatives
DXM
Ketamine
PCP
Nitrous Oxide

Another active ingredient
in Cannabis

Valium

Quaaludes

Depressants (downers)

Found in Kava Kava

Active ingredient in Cannabis

Found in the African
ceremonial root Iboga

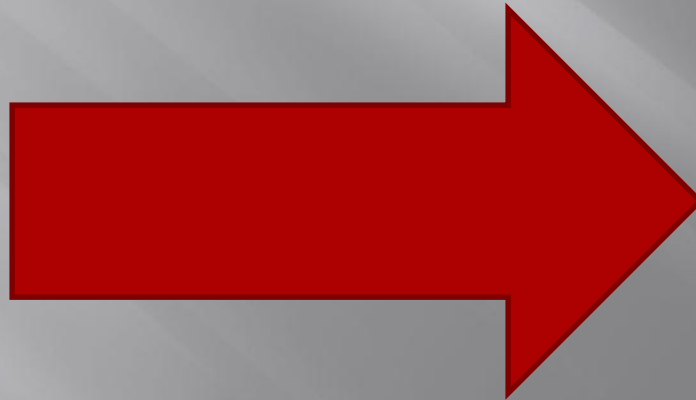
Found in Fly Agaric mushrooms
(the red and white ones)

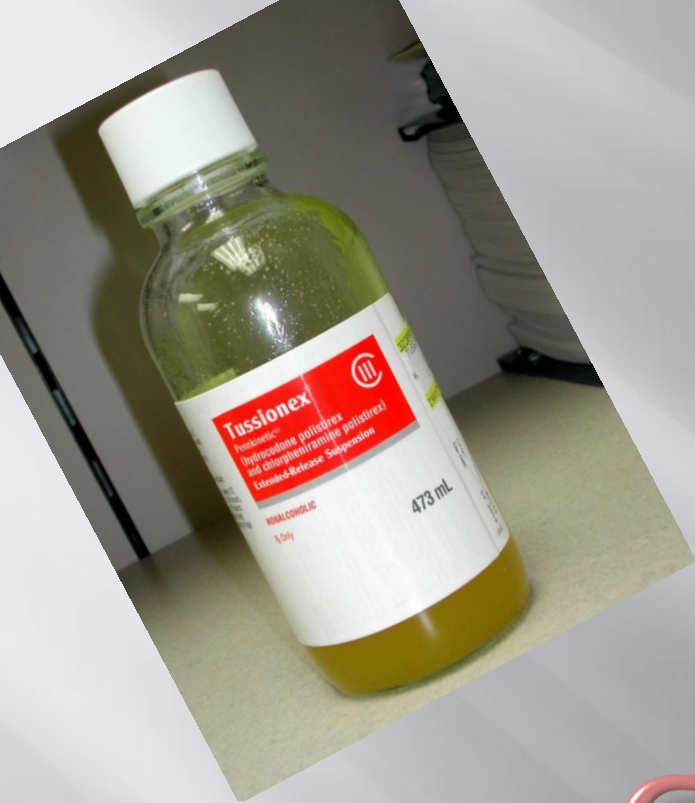
Found in Datura
("Jimson Weed")

From Salvia divinorum

Mouse Party

- ▣ Mouse Brains on
Drugs Simulations





DRUG CLASSES



The government maintains five schedules of classifications for controlled substances

Controlled substances are placed in these schedules according to:

- Potential for abuse
- Potential for dependence
- Medical value

Abuse

- ▣ Inappropriate use
- ▣ Unwarranted use
- ▣ Over use
- ▣ May or may not be addictive



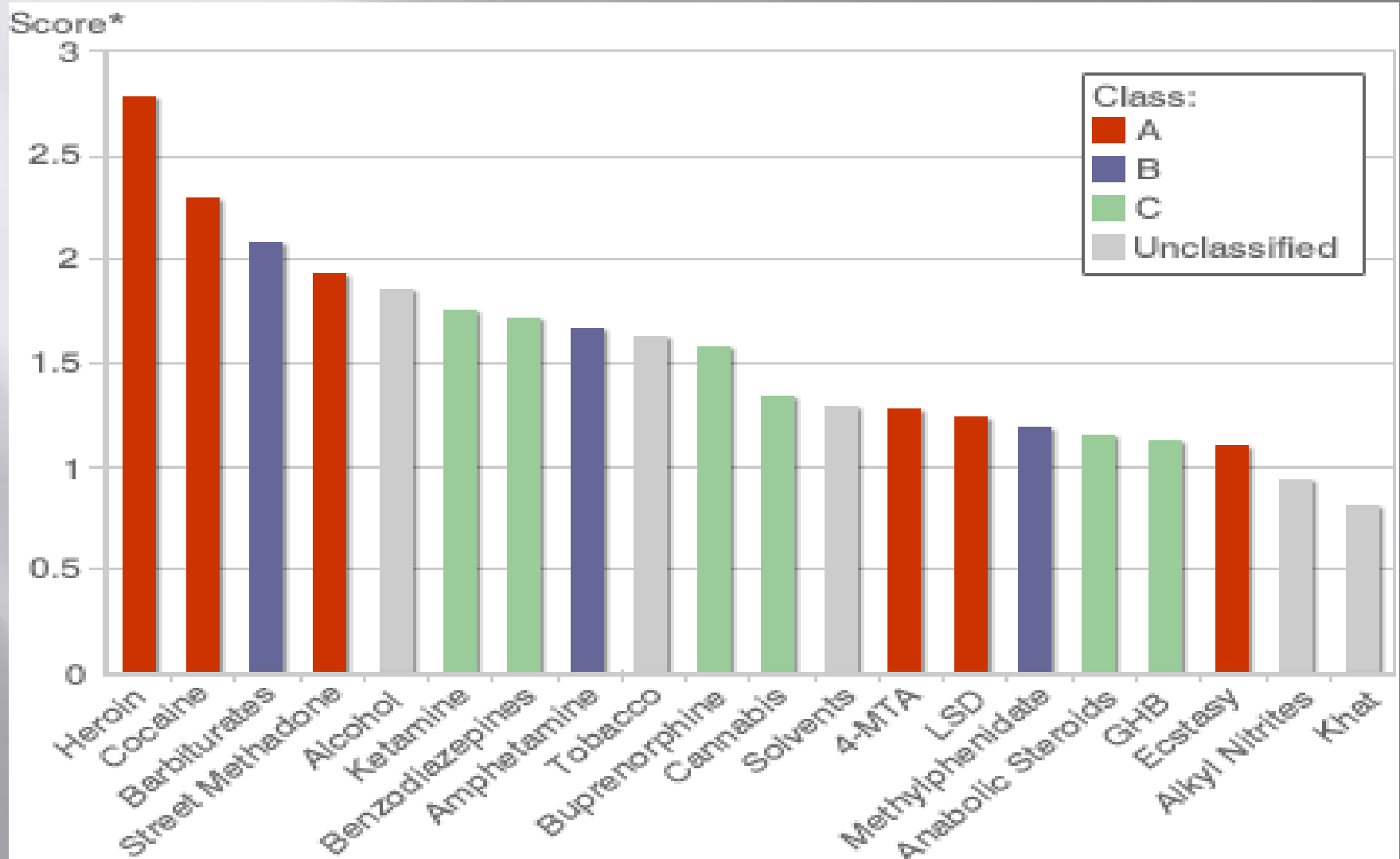


Dependence



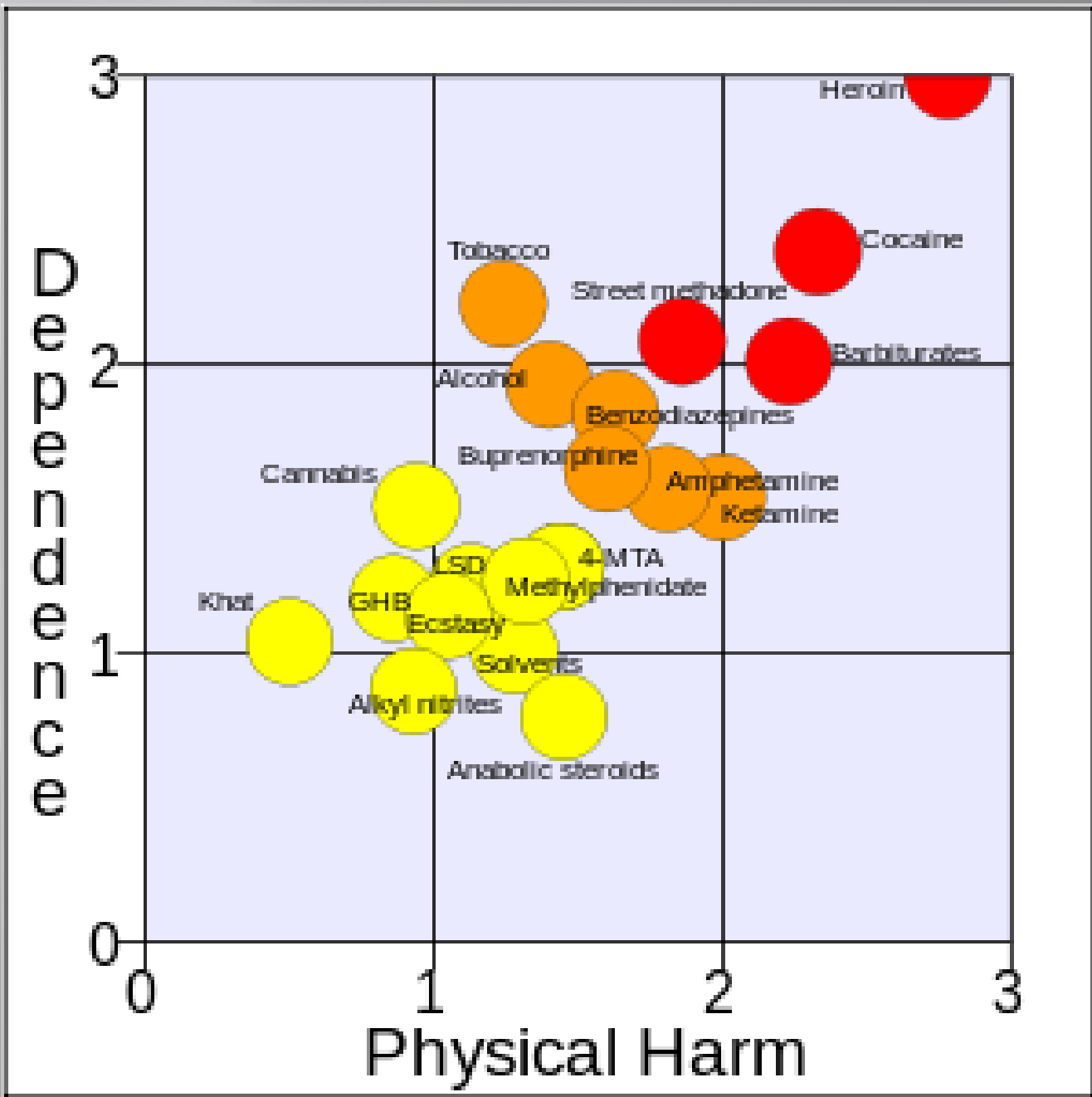
- ▣ Physical dependence occurs when the drug becomes necessary for their body to function normally.
- ▣ Psychological dependence occurs when a person thinks they need a drug to function normally.

Most Dangerous/Harmful Drugs:



*Mean harm rating by independent experts

SOURCE: SCIENCE SELECT COMMITTEE



DRUG POISONING DEATHS PER 100,000 PEOPLE

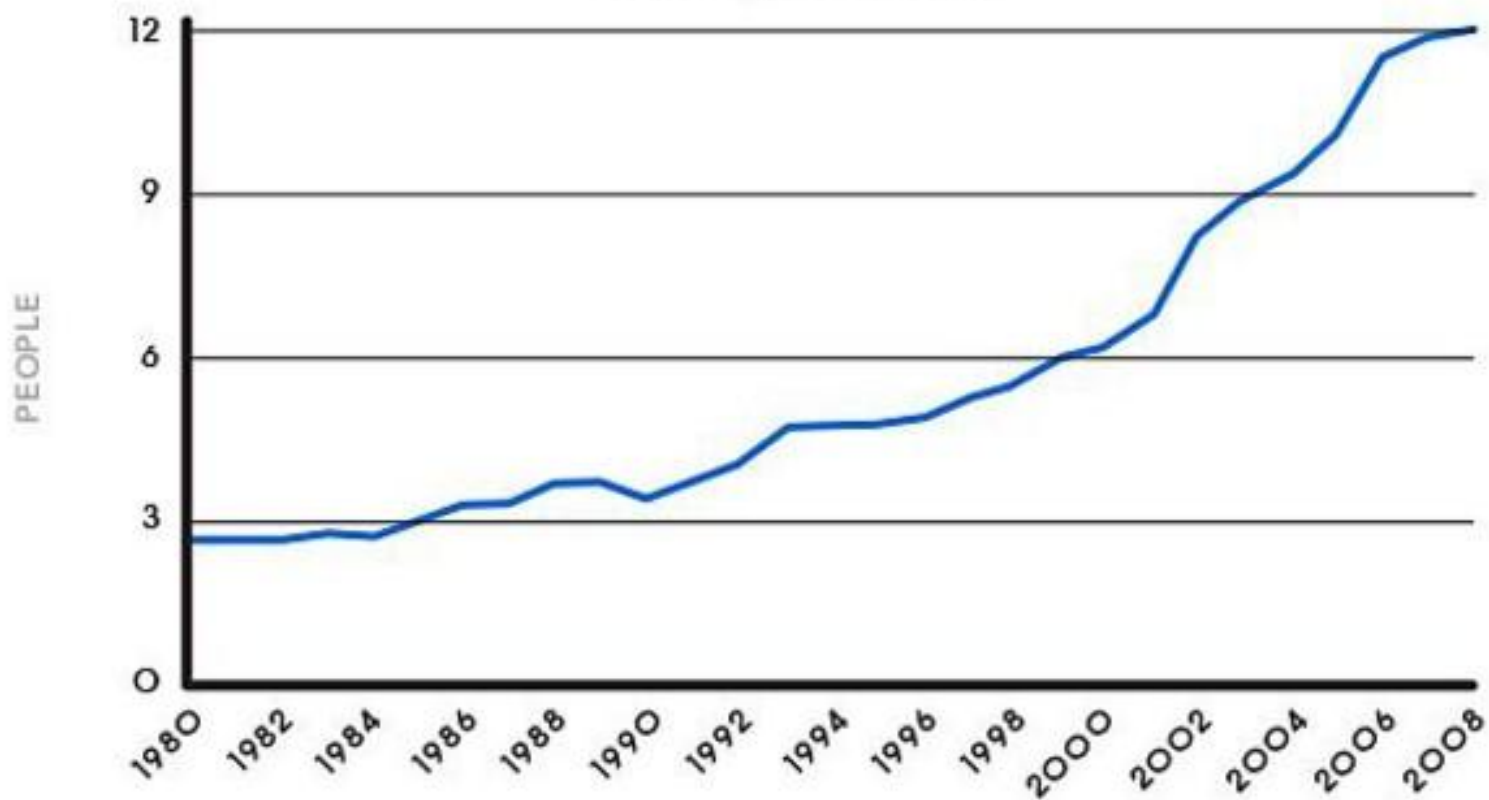


CHART: BLOOMBERG VIEW

Definition of Controlled Substance Schedules

- ▣ Drugs and other substances that are considered controlled substances under the Controlled Substances Act (CSA) are divided into five schedules.
- ▣ Substances are placed in their respective schedules based on whether they have a currently accepted medical use in treatment in the United States, their relative abuse potential, and likelihood of causing dependence when abused.

Schedule I Controlled Substances

- ▣ Substances in this schedule have:
 - ▣ No currently accepted medical use in the United States,
 - ▣ A lack of accepted safety for use under medical supervision,
 - ▣ High potential for abuse.
- ▣ Some examples of substances listed in Schedule I are:
 - ▣ heroin,
 - ▣ lysergic acid diethylamide (LSD),
 - ▣ marijuana (cannabis),
 - ▣ peyote,
 - ▣ methaqualone,
 - ▣ 3,4-methylenedioxymethamphetamine ("Ecstasy").



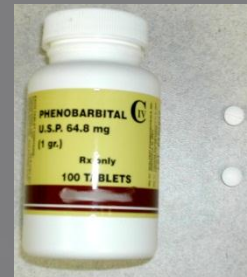
Schedule II Controlled Substances

- ▣ Substances in this schedule have
 - ▣ A high potential for abuse which may lead to severe psychological or physical dependence.
- ▣ Examples of Schedule II narcotics include:
 - ▣ methadone (Dolophine®),
 - ▣ meperidine (Demerol®),
 - ▣ oxycodone (OxyContin®, Percocet®),
 - ▣ morphine, opium, and codeine.
- ▣ Examples of Schedule II stimulants include:
 - ▣ amphetamine (Dexedrine®, Adderall®),
 - ▣ methamphetamine (Desoxyn®),
 - ▣ methylphenidate (Ritalin®).



Schedule III Controlled Substances

- ▣ Substances in this schedule have
 - ▣ A potential for abuse less than substances in Schedules I or II and abuse may lead to moderate or low physical dependence or high psychological dependence.
- ▣ Examples of Schedule III narcotics include:
 - ▣ combination products containing less than 15 milligrams of hydrocodone per dosage unit (Vicodin®),
 - ▣ products containing not more than 90 milligrams of codeine per dosage unit (Tylenol with Codeine®).
- ▣ Examples of Schedule III non-narcotics include:
 - ▣ benzphetamine (Didrex®),
 - ▣ phendimetrazine,
 - ▣ anabolic steroids such as Depo®-Testosterone and Androgel®.



Schedule IV Controlled Substances

- ▣ Substances in this schedule have
 - ▣ A low potential for abuse relative to substances in Schedule III.
- ▣ Examples of Schedule IV substances include:
 - ▣ alprazolam (Xanax®),
 - ▣ carisoprodol (Soma®),
 - ▣ clonazepam (Klonopin®),
 - ▣ diazepam (Valium®),
 - ▣ triazolam (Halcion®).

Schedule V Controlled Substances

- ▣ Substances in this schedule have
 - A low potential for abuse relative to substances listed in Schedule IV and consist primarily of preparations containing limited quantities of certain narcotics.
- ▣ Examples of Schedule V substances include:
 - ▣ cough preparations containing not more than 200 milligrams of codeine per 100 milliliters or per 100 grams (Robitussin AC[®], Phenergan with Codeine[®]), and ezogabine.

Legal Classification: Controlled Substances Act 1990 (original 1970)

- ▣ The following is only a partial listing:
- ▣ **Schedule 1:**
 - ▣ High Abuse, No Recognized Medical Use, High Dependency Risk
 - ▣ Heroin, LSD, Marijuana, Methaqualone
- ▣ **Schedule 2:**
 - ▣ High Abuse, Medical Utility, High Dependency Risk
 - ▣ Opium, Morphine, Cocaine, Methadone, Methamphetamine
- ▣ **Schedule 3:**
 - ▣ Lower Abuse, Medical Utility, Moderate Dependency Risk
 - ▣ AmphetamineBarbiturateValiumXanaxAnabolic SteroidsCodeine
- ▣ **Schedule 4:**
 - ▣ Limited Abuse, High Medical Utility, Limited Dependency Risk
 - ▣ Chloral Hydrate, Phenobarbital
- ▣ **Schedule 5:**
 - ▣ Minor Problems
 - ▣ Typically includes preparations of the above drugs in limited amounts

Very Non-Toxic

Getting More Toxic

Approaching Poison

DEA Drug Schedules

Unscheduled
(Legal Over the Counter)

Schedule IV or V
(Prescribable, Low Danger)

Schedule II or III
(Prescribable, Dangerous)

Schedule I
(Illegal and Dangerous)

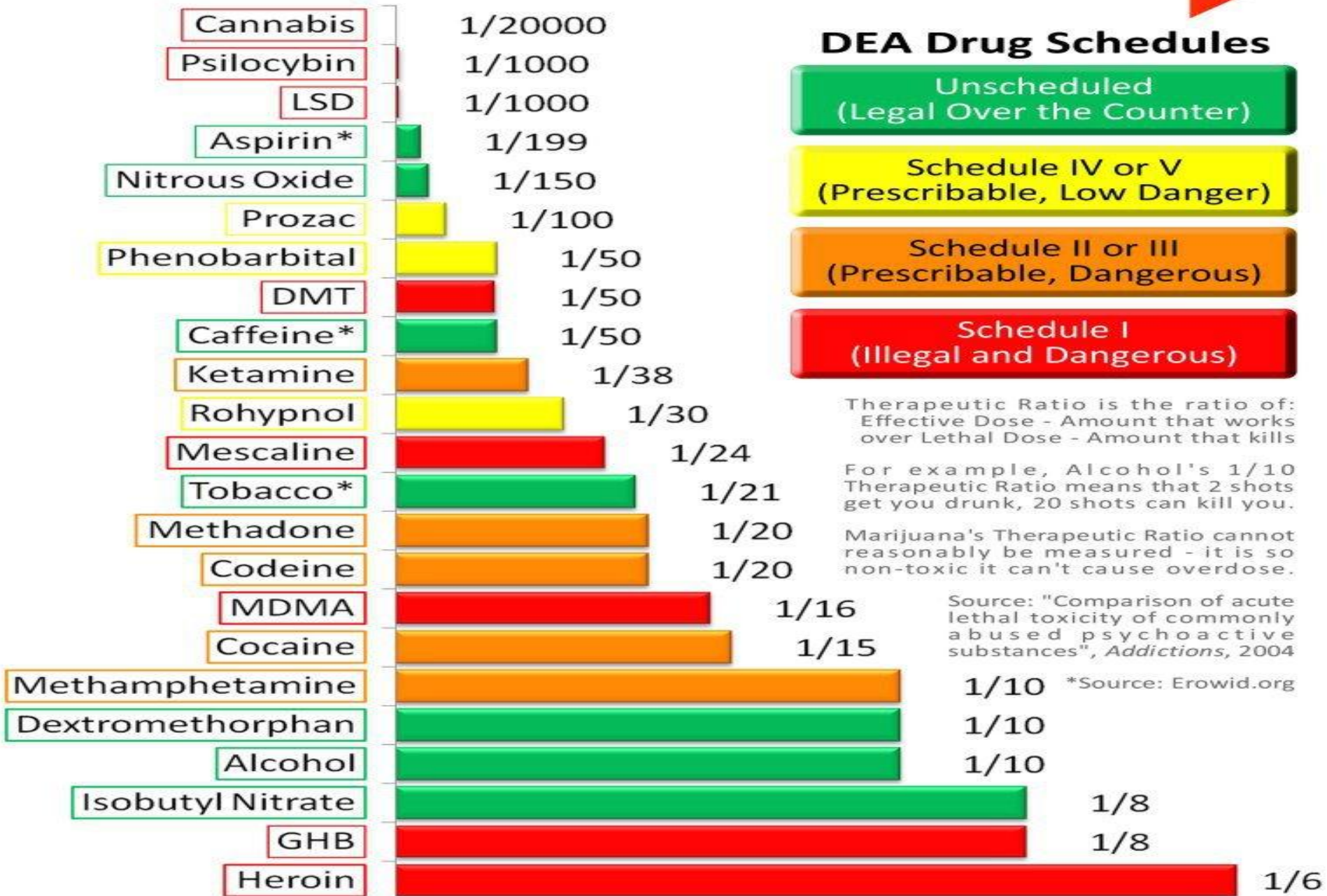
Therapeutic Ratio is the ratio of:
Effective Dose - Amount that works
over Lethal Dose - Amount that kills

For example, Alcohol's 1/10
Therapeutic Ratio means that 2 shots
get you drunk, 20 shots can kill you.

Marijuana's Therapeutic Ratio cannot
reasonably be measured - it is so
non-toxic it can't cause overdose.

Source: "Comparison of acute
lethal toxicity of commonly
abused psychoactive
substances", *Addictions*, 2004

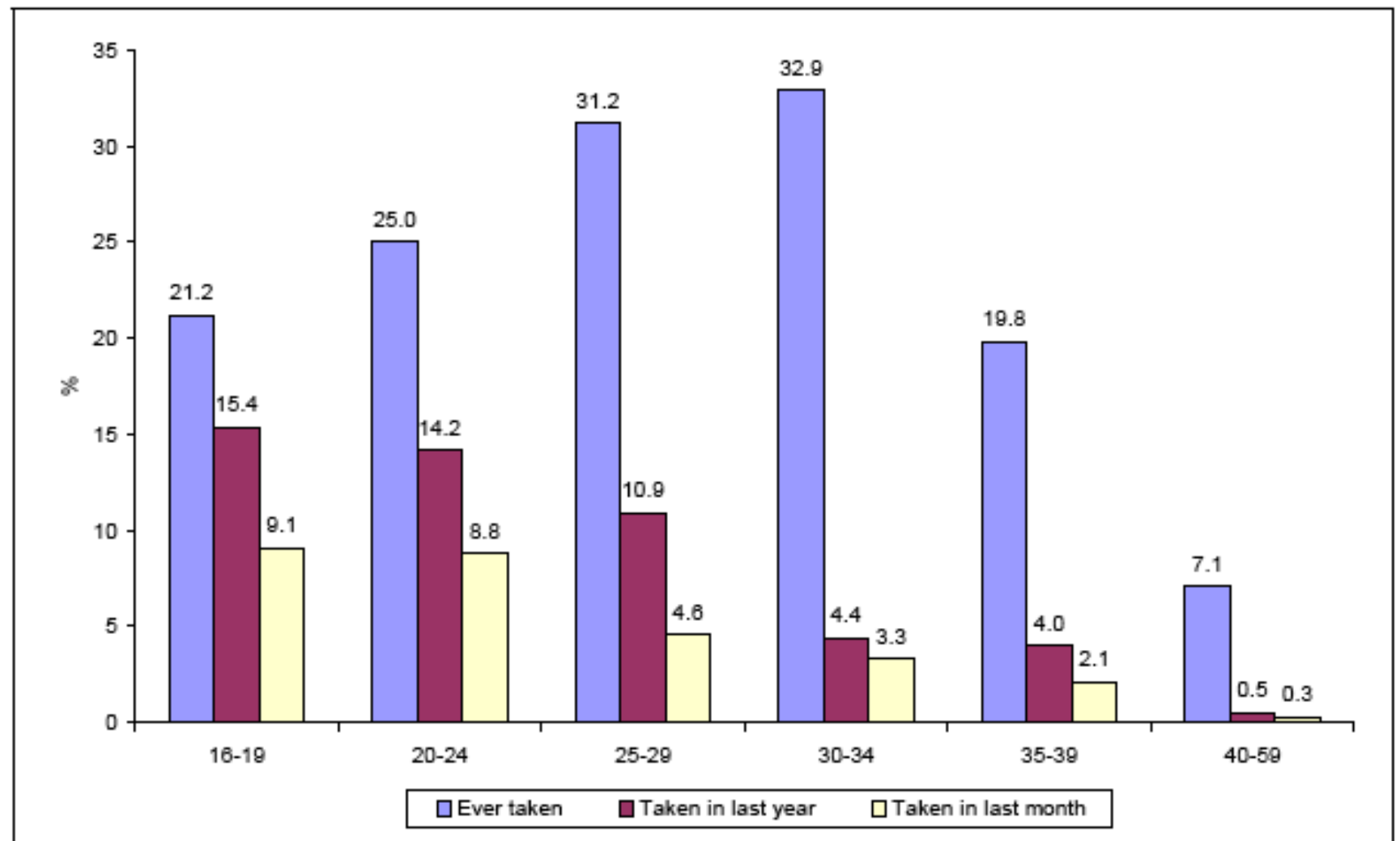
*Source: Erowid.org



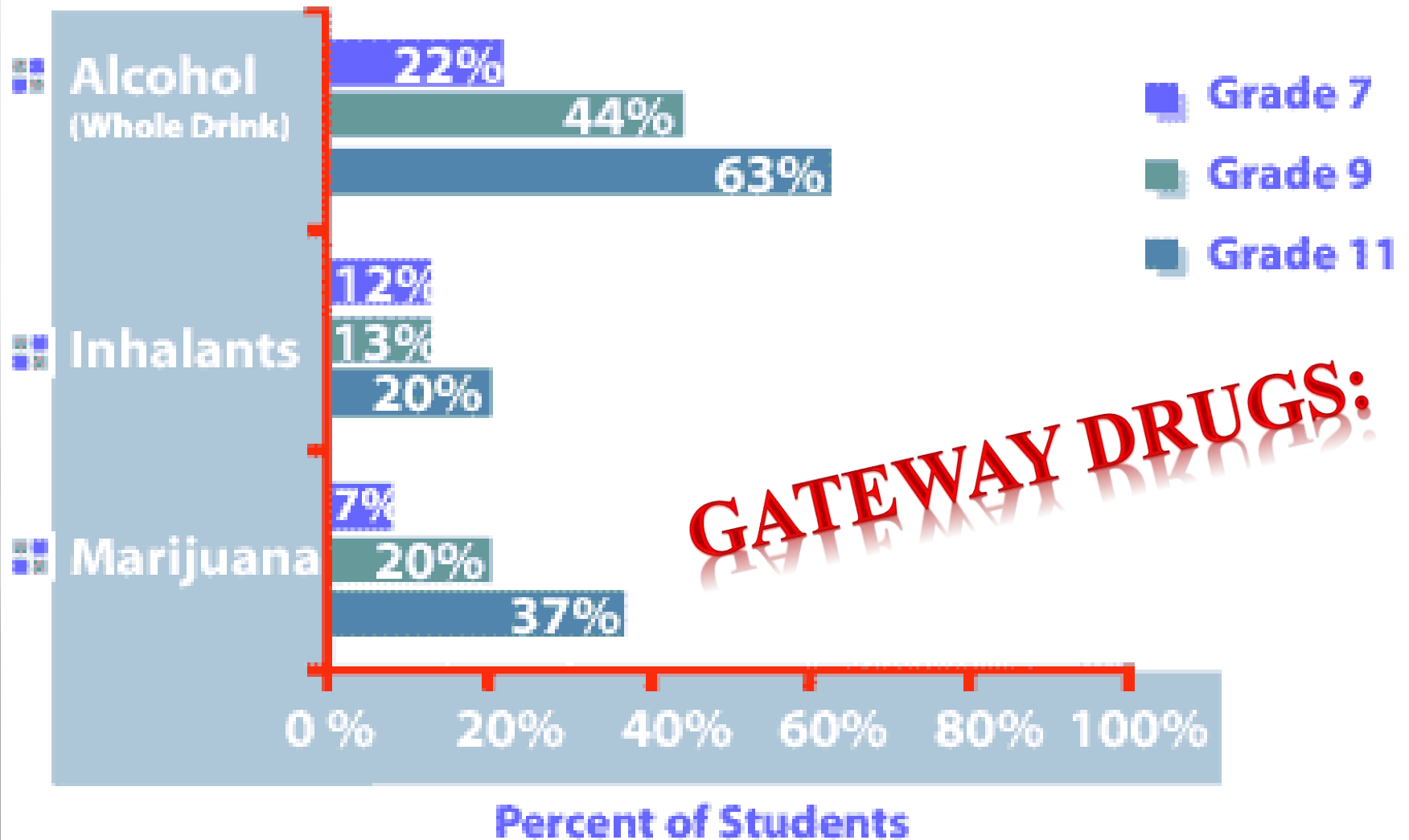
Drug Usage Statistics:



Age Range and Drug Use:



Percent of Students Who have used Alcohol or Other Drugs at Least Once in Their Lives

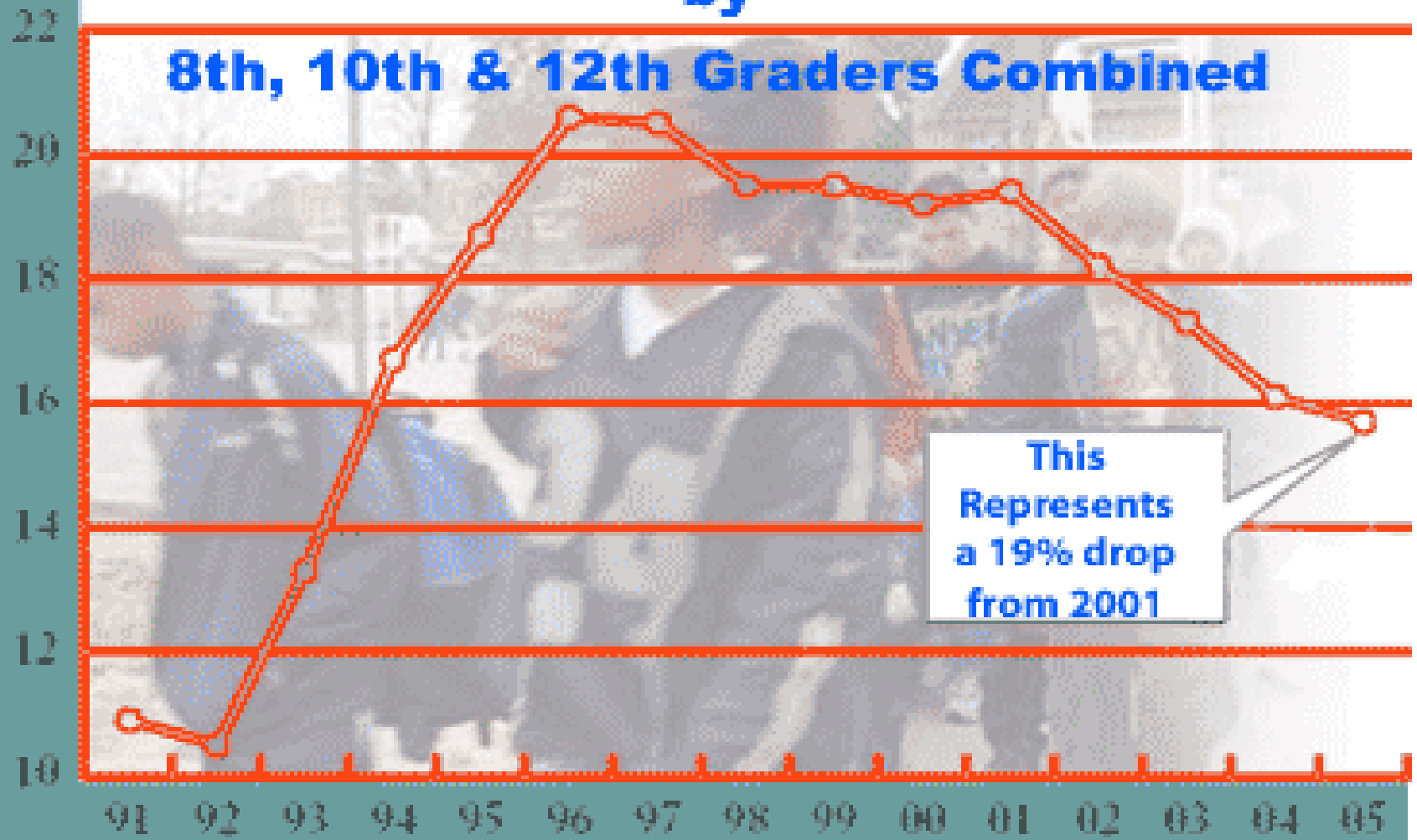


Any Illicit Drug Use

by

8th, 10th & 12th Graders Combined

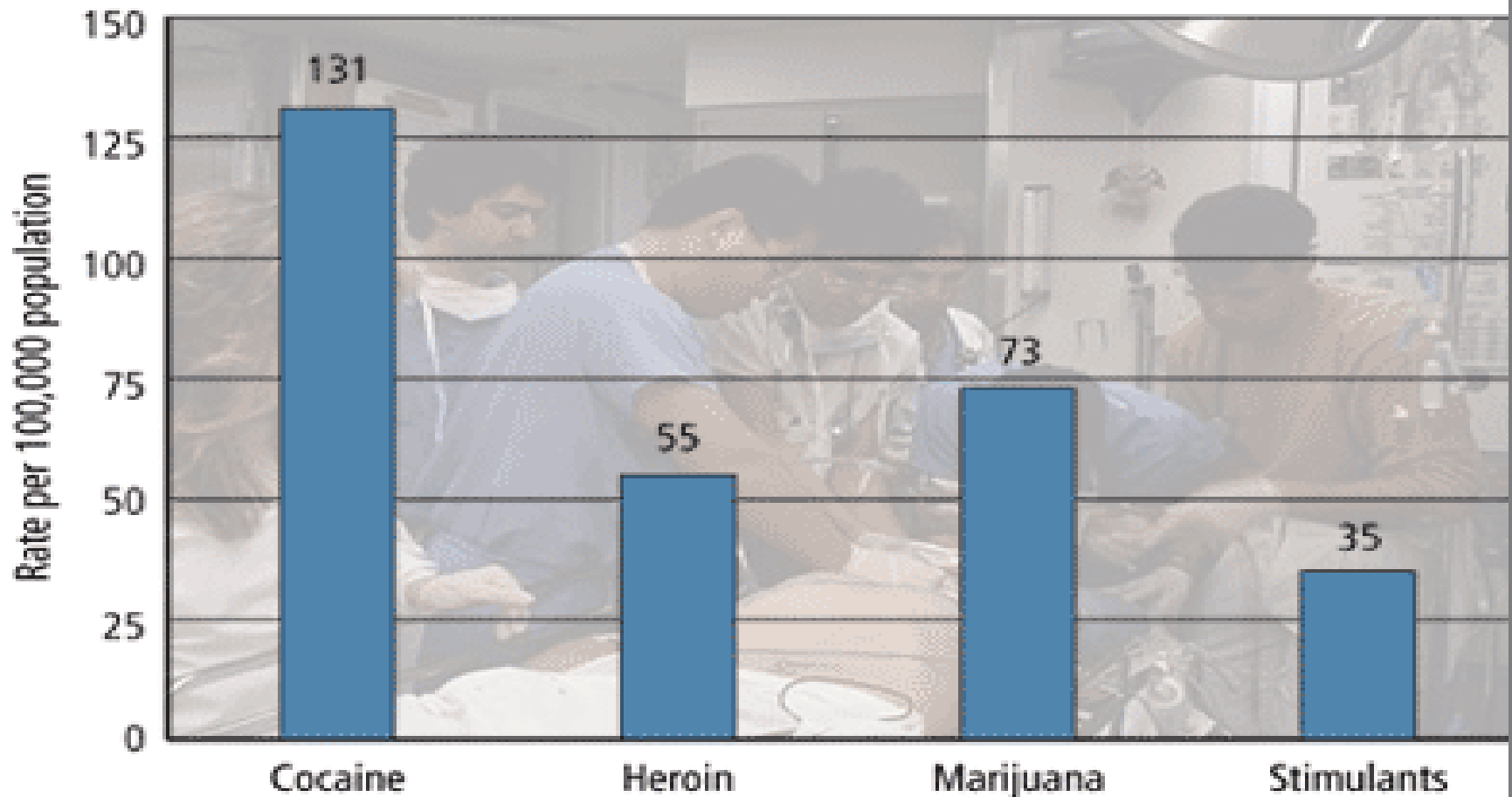
Percent Using in the past month



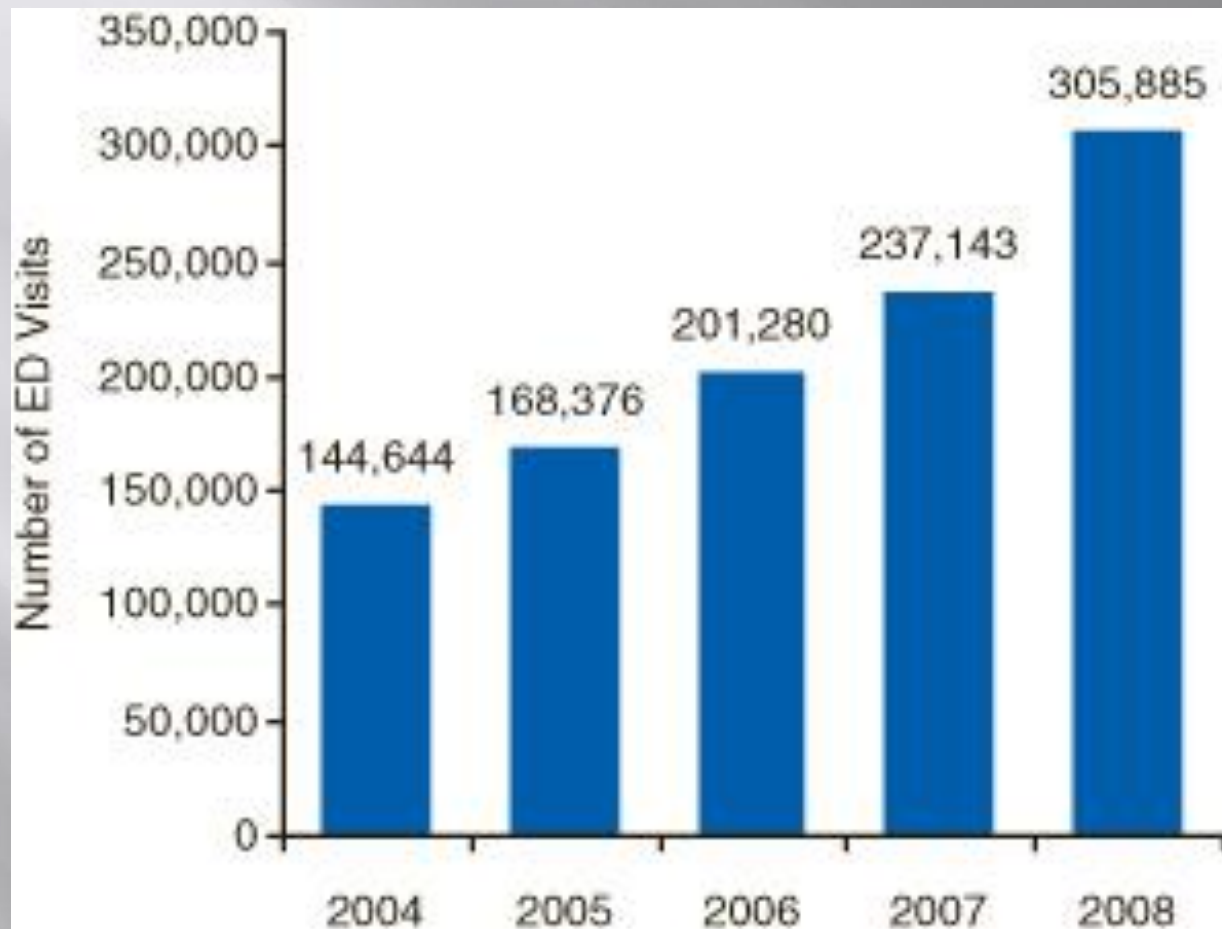
Source: Monitoring The Future Survey (2005)

Drugs responsible for most emergency room visits in 2004

Drug Related Emergency Room Admissions 2004



E.R. Visits related to drugs 2004 - 2008



Source: 2008 (08/2009 update) SAMHSA Drug Abuse Warning Network (DAWN).

Estimated Annual Drug Consumption

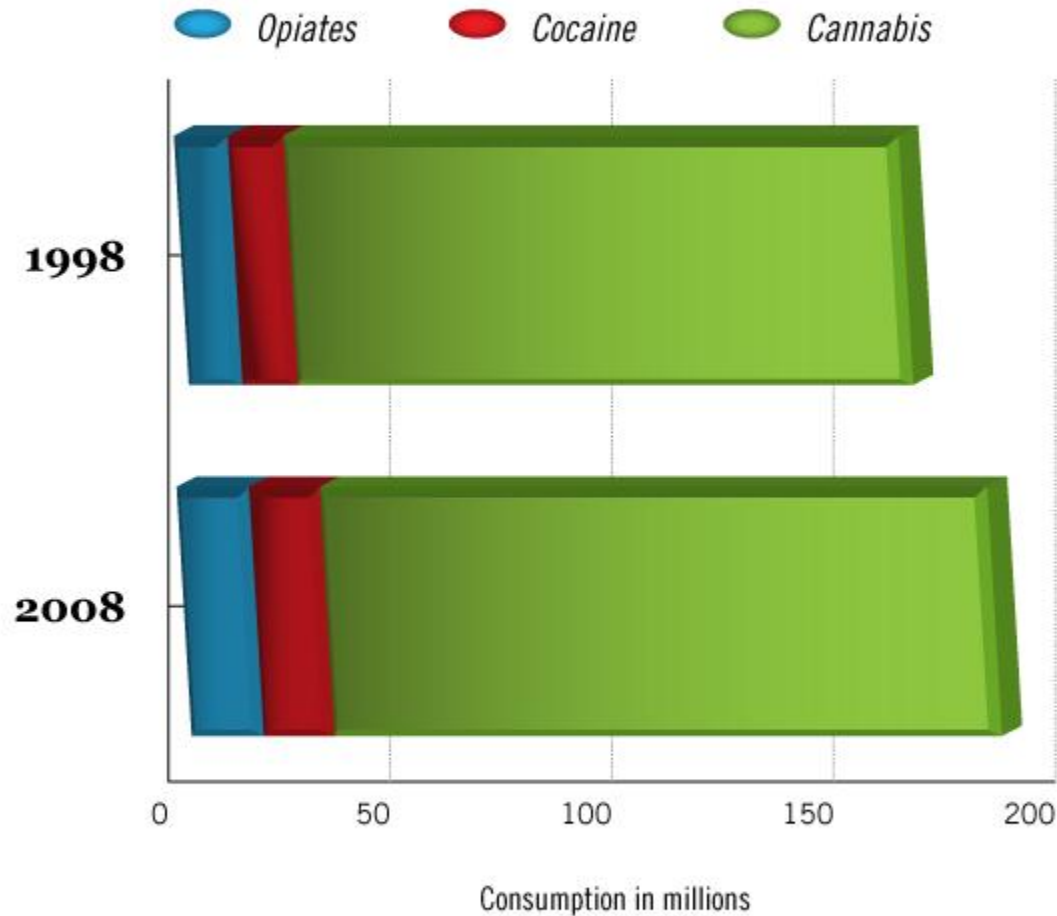
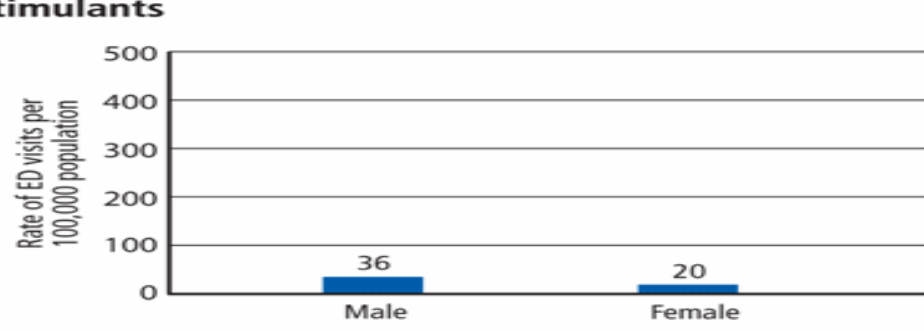
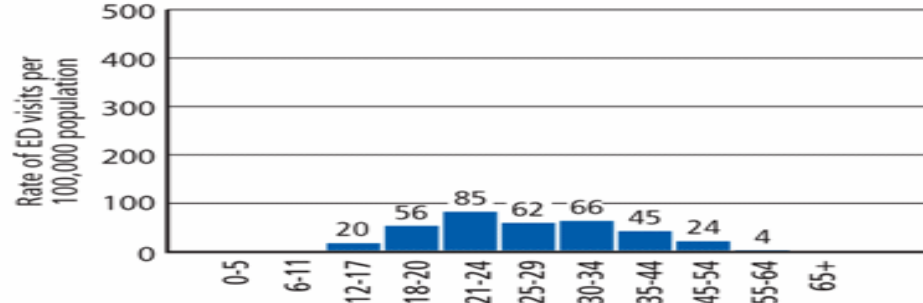
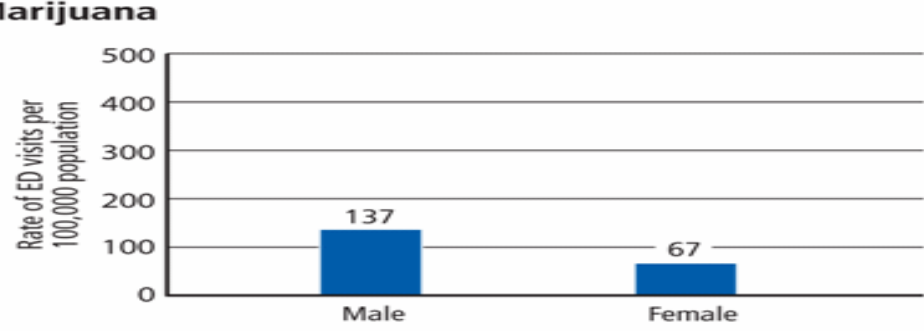
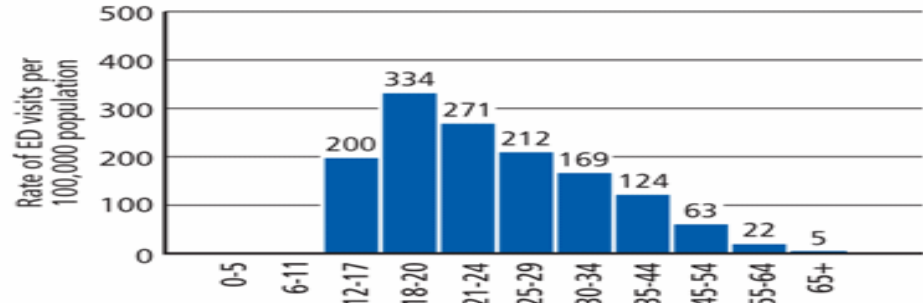
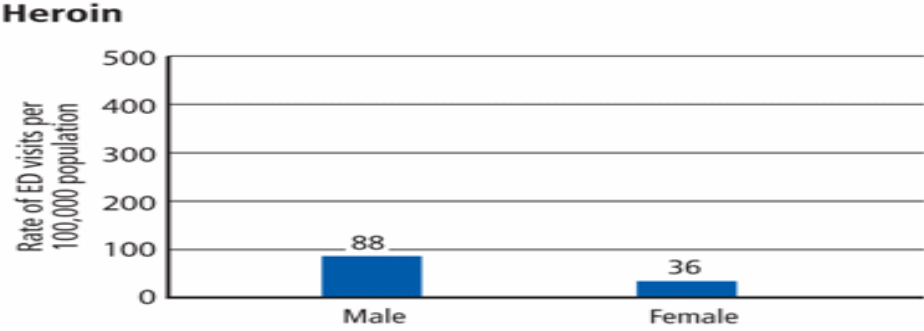
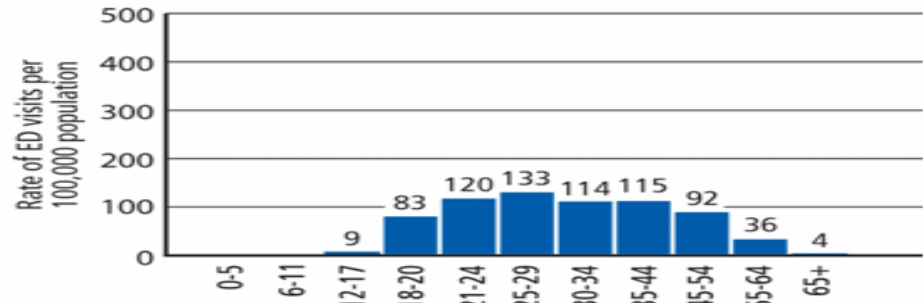
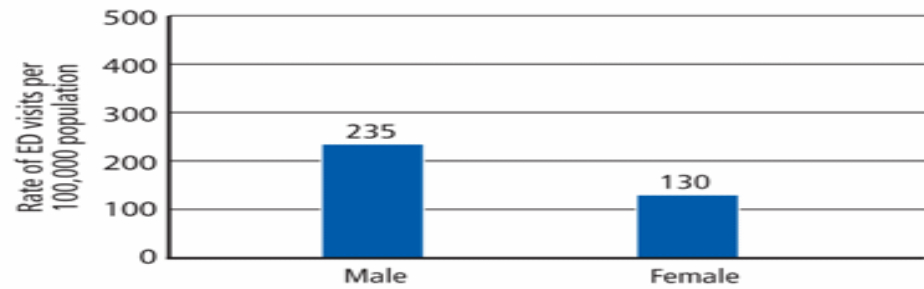
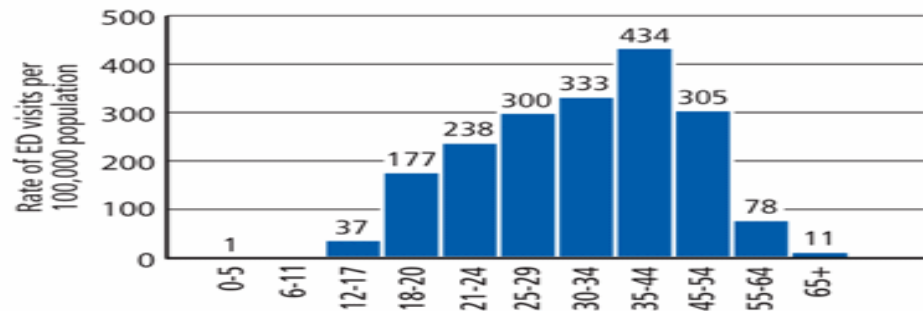


Chart by: The NorthStar News 6/9/2011

Source: United Nations

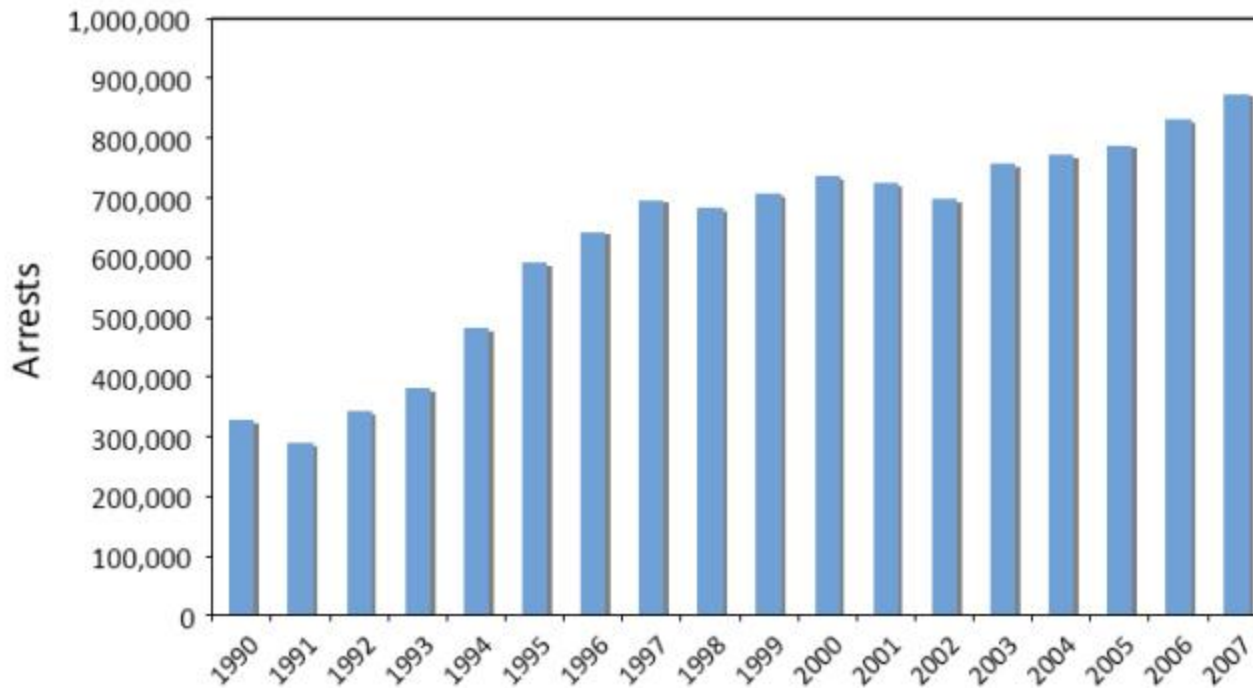


So...

▣ Should we just legalize drugs?

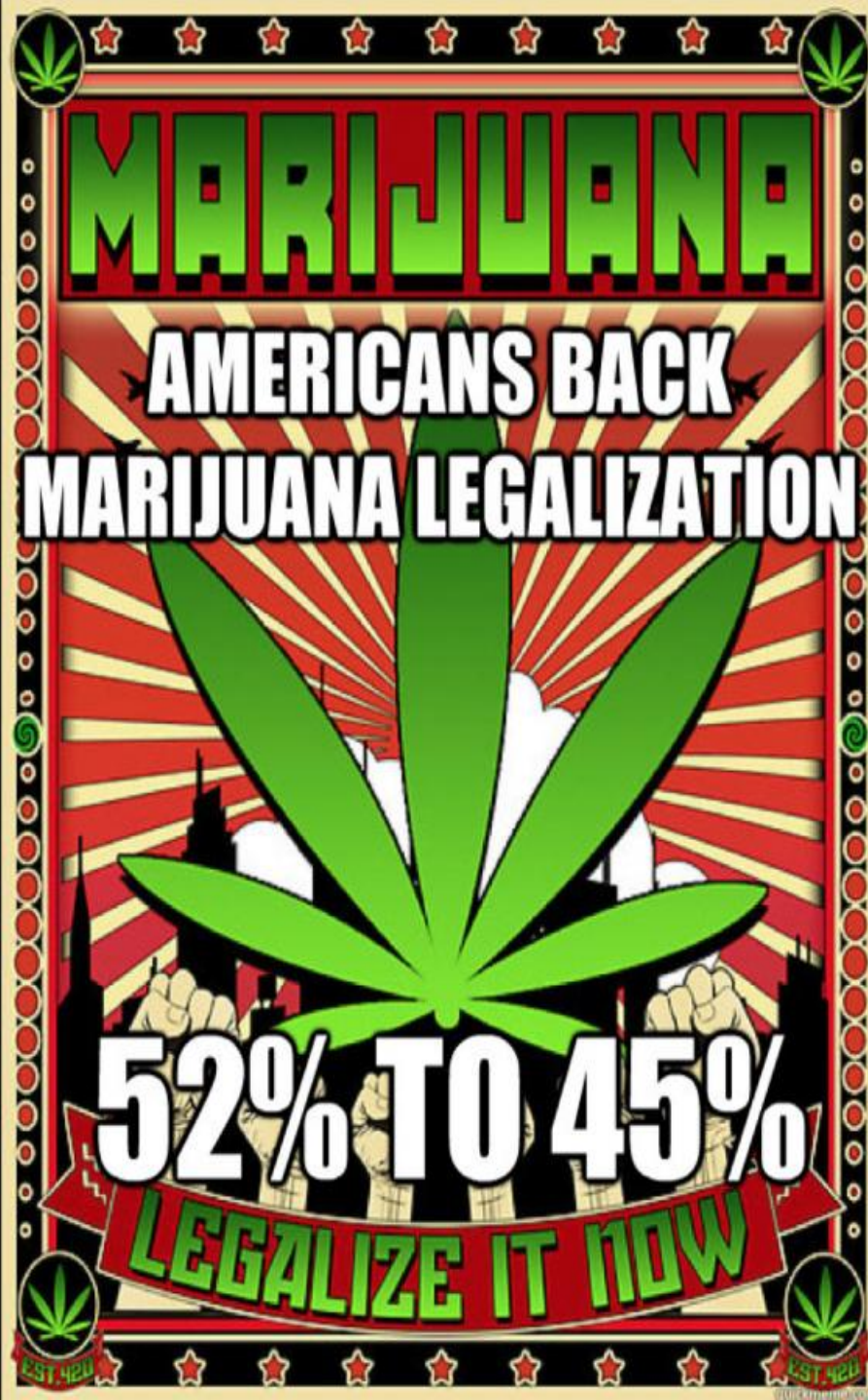


Figure 2. Cannabis-related arrests in the United States, 1990–2007*



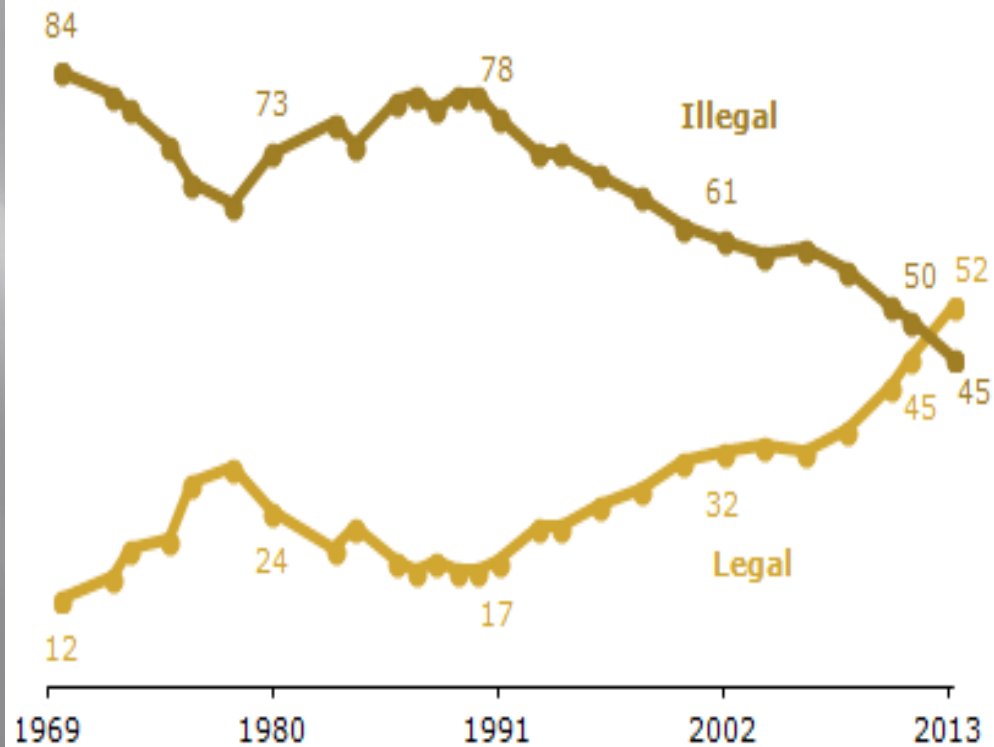
*Includes arrests for possession, sale or production of cannabis

Source: US Bureau of Justice Statistics



Views of Legalizing Marijuana: 1969-2013

% saying marijuana should be ...



PEW RESEARCH CENTER March 13-17, 2013.
1973-2008 data from General Social Survey; 1969 and 1972 data from Gallup.

\$193 billion

Estimated cost of drug use to the U.S society in lost productivity, health care and criminal justice costs in 2007

(Source: NDIC)

\$6,120 per second

Estimated cost of drug use to the U.S society in lost productivity, health care costs, etc. *(Source: NDIC)*

Potential Tax Savings & New Revenue from Marijuana Legalization (Adjusted for 2012)

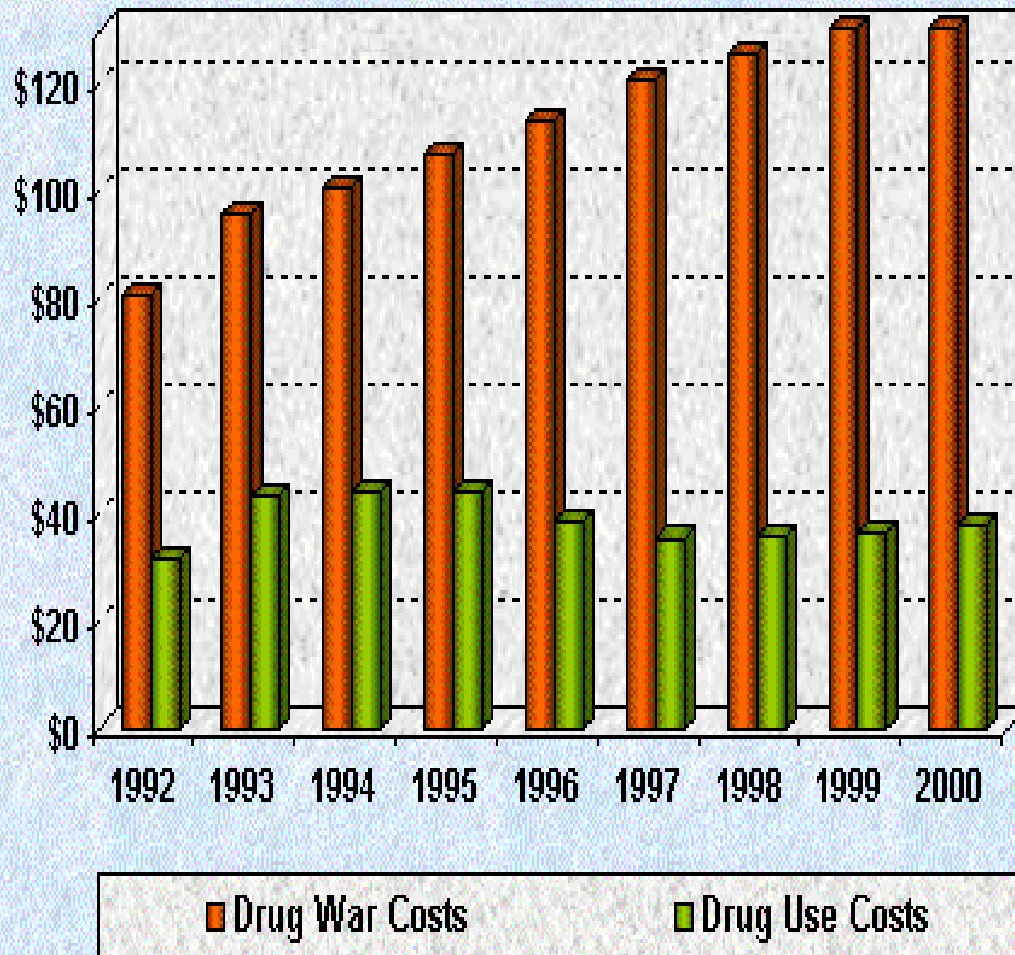




U.S. Drug Addiction Rate, 1970 - 2010
 U.S. Drug Control Spending, 1970 - 2010

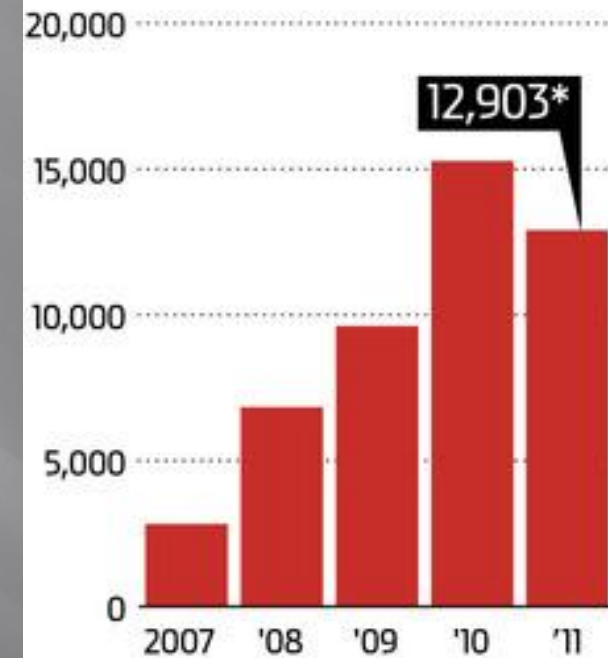
Costs of Drug War vs Costs of Drug Use (2000 \$billions) Source: ONDCP

<http://www.briancbennett.com>



South of the Border

Deaths in Mexico related to the drug war

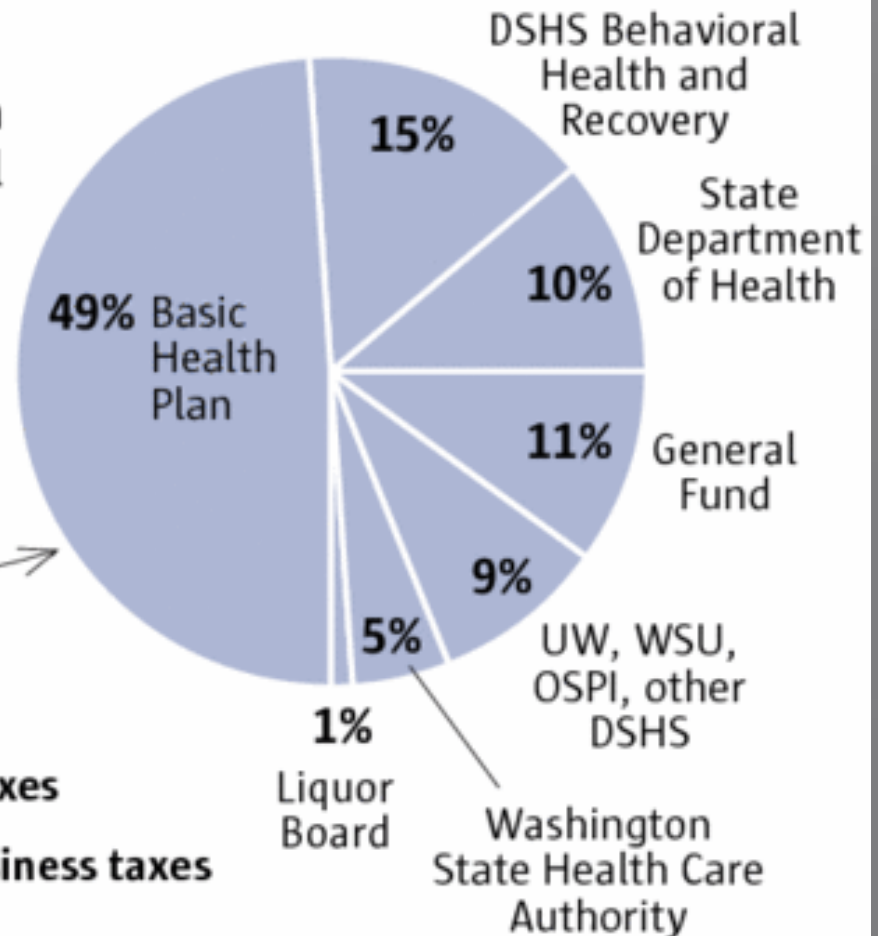
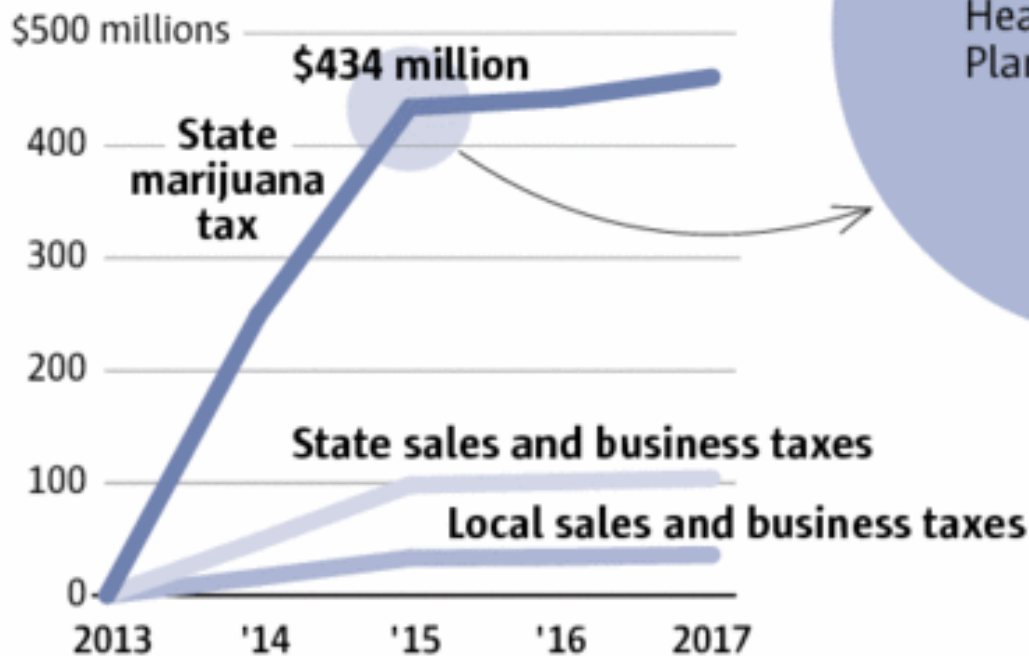


*First three quarters of 2011

Source: Mexican government
The Wall Street Journal

I-502 and public money

The state estimates annual marijuana-tax revenue of \$434 million by 2015. Nearly half of the money will go to the Basic Health Plan.

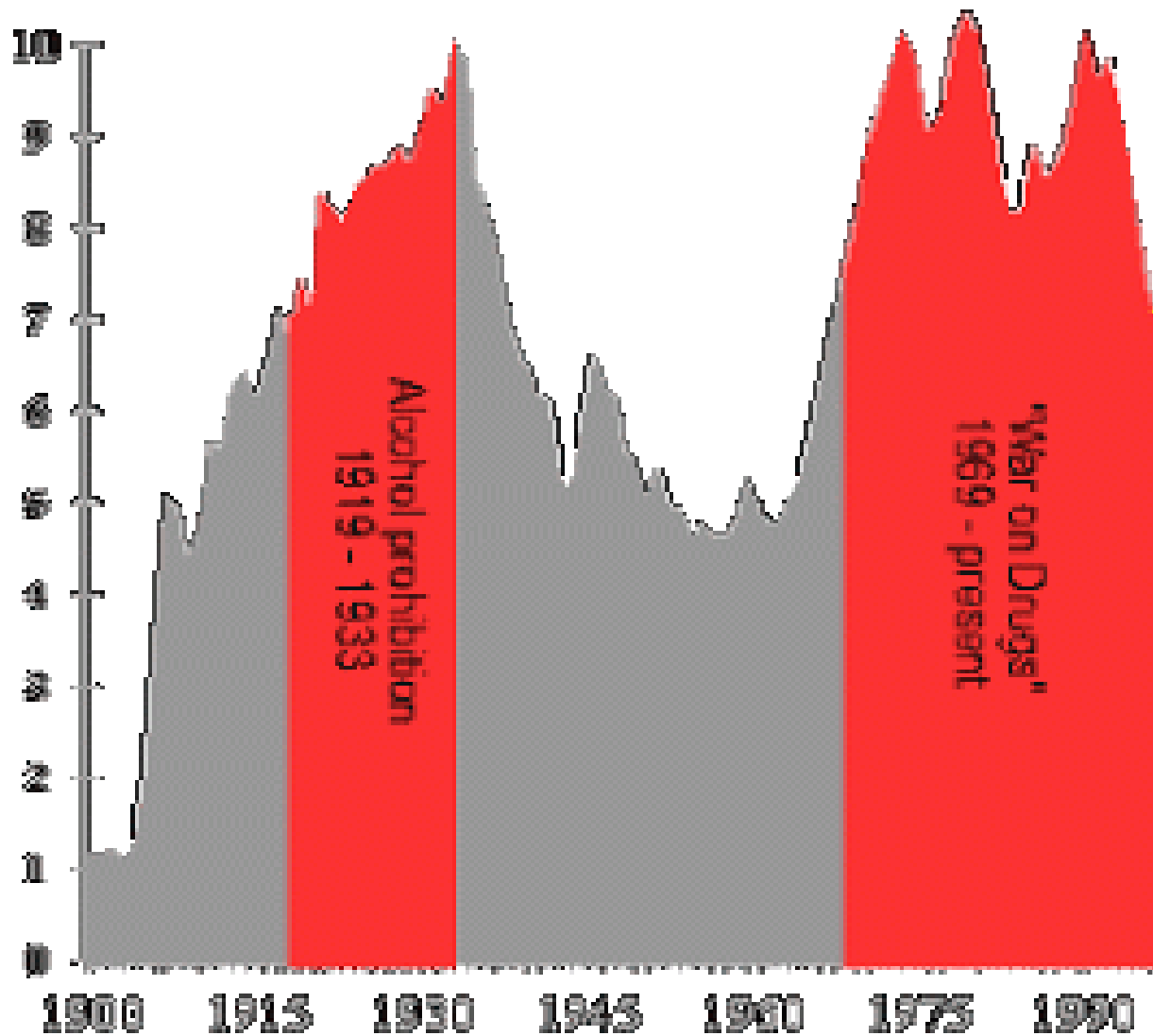


Source: Office of Financial Management fiscal impact statement on I-502

THE SEATTLE TIMES

Murder in America

Homicides per 100,000 population
1800 - 1997 (FBI Uniform Crime Reports)



SOME BODILY EVIDENCE OF DRUG USE

The bottom of the brain



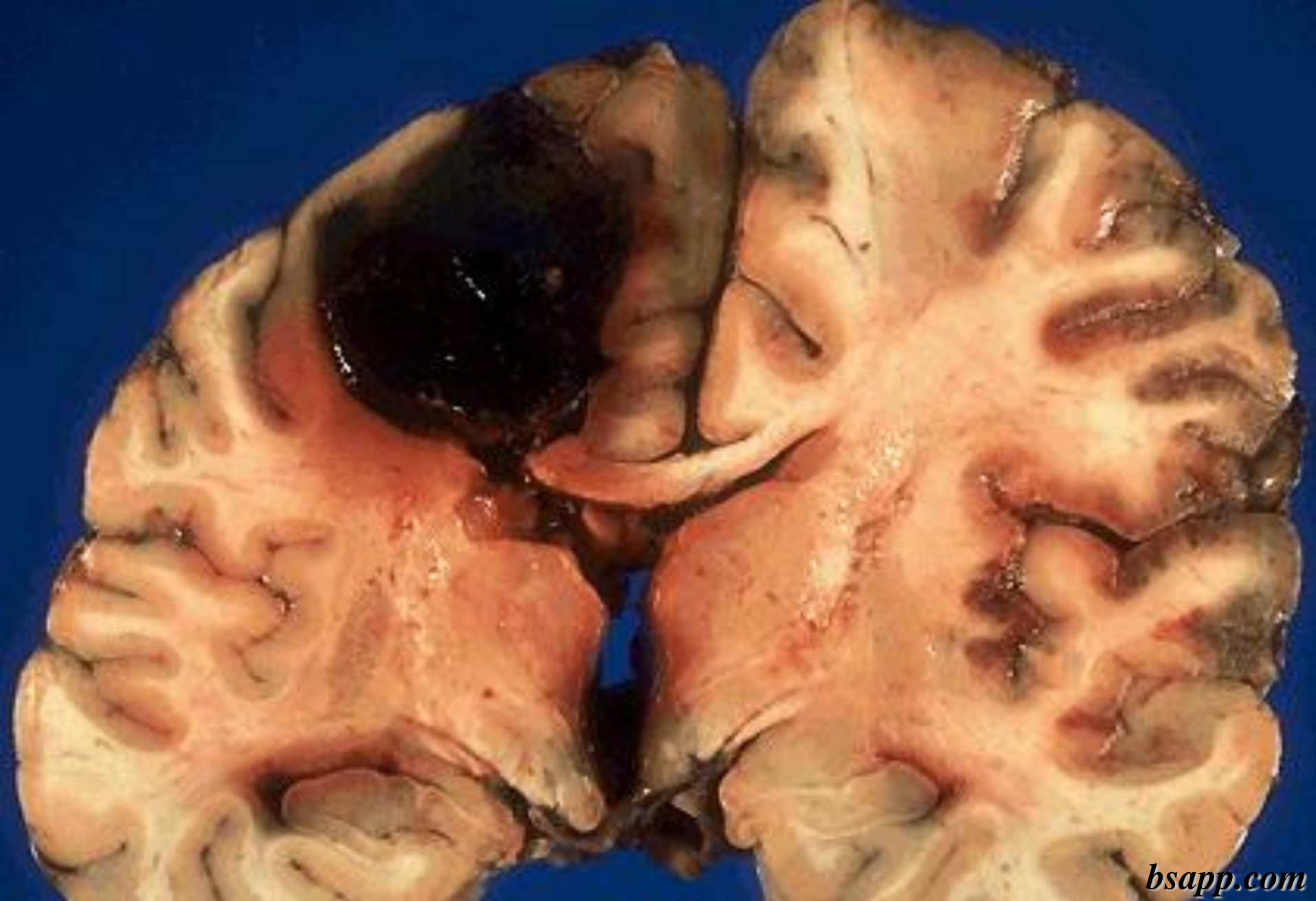
These black spots on the brain indicate long-term drug use

A cross section of the Brain



bsapp.com

Hemorrhage caused by a cocaine overdose



bsapp.com

Hemorrhage caused by a cocaine overdose

Drug Smuggling

One common way to smuggle drugs into the country is to swallow a plastic bag filled with cocaine, heroin, or some other illegal contraband. After passing through customs, the smuggler will then “throw up” the bag. This plan goes south if the bags burst while in the stomach.

The black spots in this stomach indicate where bags of cocaine burst, causing a massive overdose.

