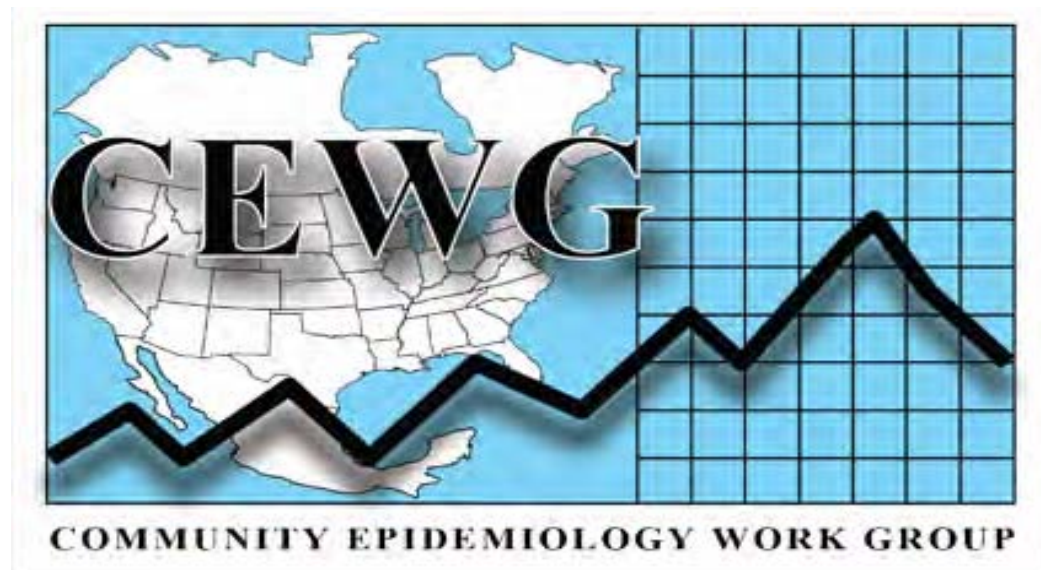


Current trends in drug abuse: Prescription and synthetic drugs 2012

**Toward Zero Deaths Workshop
Rochester, Minnesota
5/17/12**

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- q **National Institute on Drug Abuse (NIDA)**
- q Monitoring emerging trends in drug abuse since 1976
- q A nationwide network of researchers from 20 US cities
- q Reports written twice annually

Two emerging trends:

1. Prescription opioid and heroin abuse
2. Synthetic drugs, a.k.a. “*drug impersonators*”

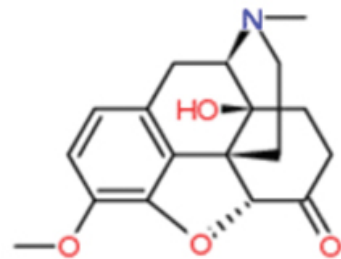
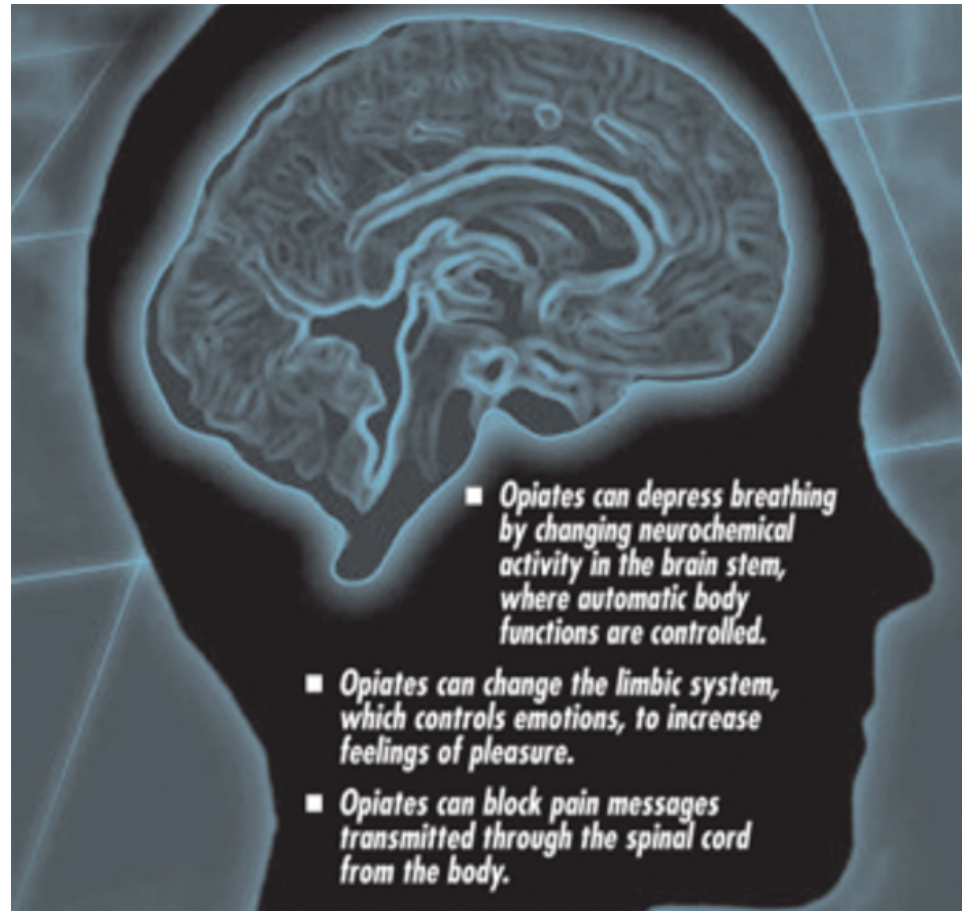
PRESCRIPTION OPIOIDS (PAINKILLERS)

Opioids are drugs that contain opium or are derived from and imitate opium:

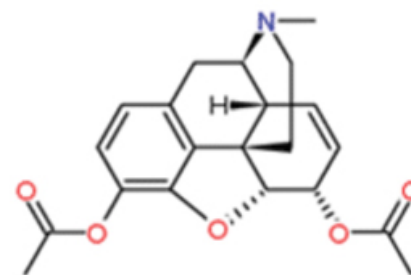
- Are used for **pain relief** and are available only by **prescription**.
- Are **non-refillable** and when used properly under a medical doctor's supervision, are **safe and effective**. They effectively change the way a person experiences pain.

Those who use these narcotics experience a general sense of well-being by reduced tension, anxiety, and aggression.

SOURCE: <http://www.nida.nih.gov/infofacts/PainMed.html> , Ibid, <http://www.dea.gov/pubs/abuse/4-narc.htm>



OXYCONTIN (OXYCODONE)



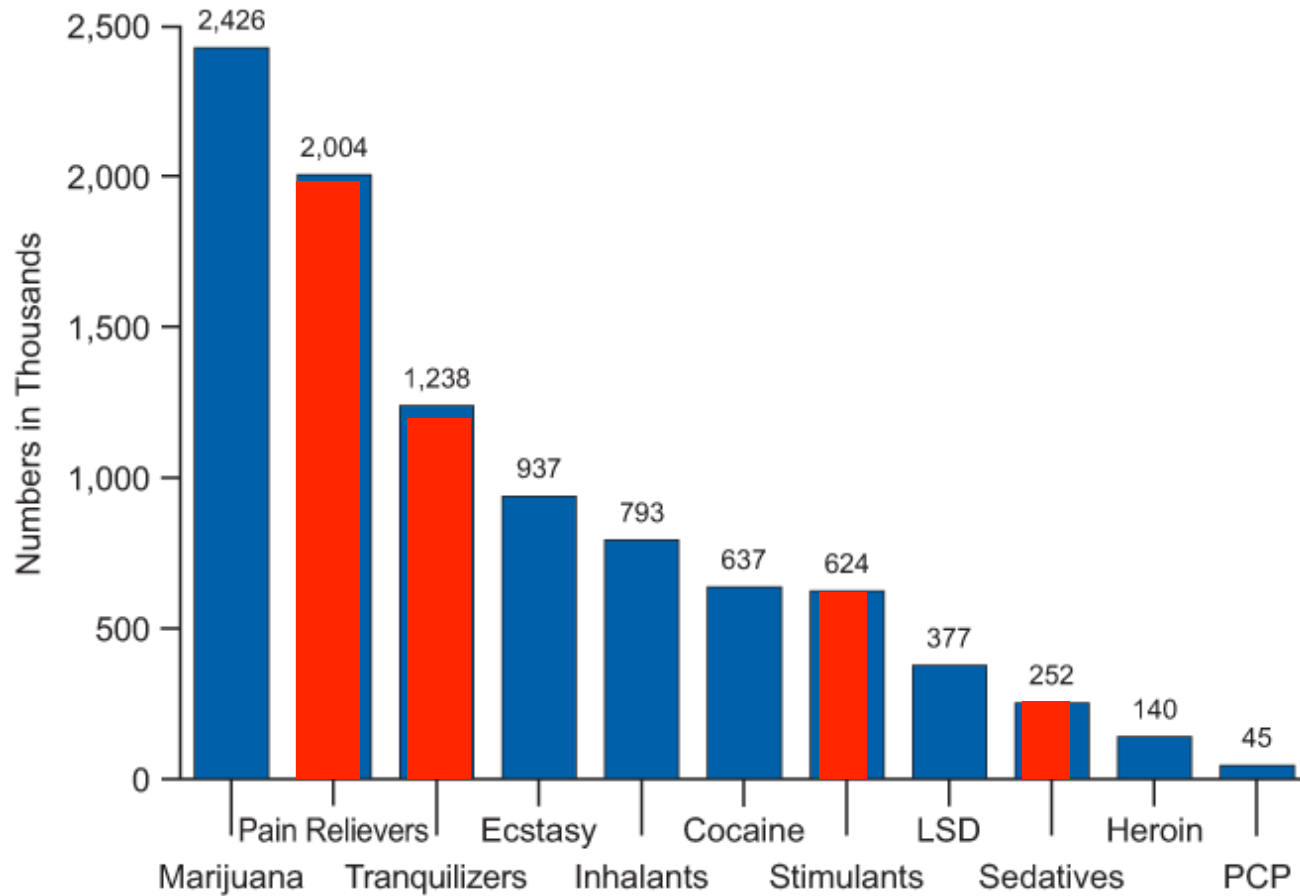
HEROIN

Nearly 14 percent of U.S. residents

- an estimated 35 million people age 12 and older -
**report using prescription pain
relievers nonmedically
at least once in their lifetime.**

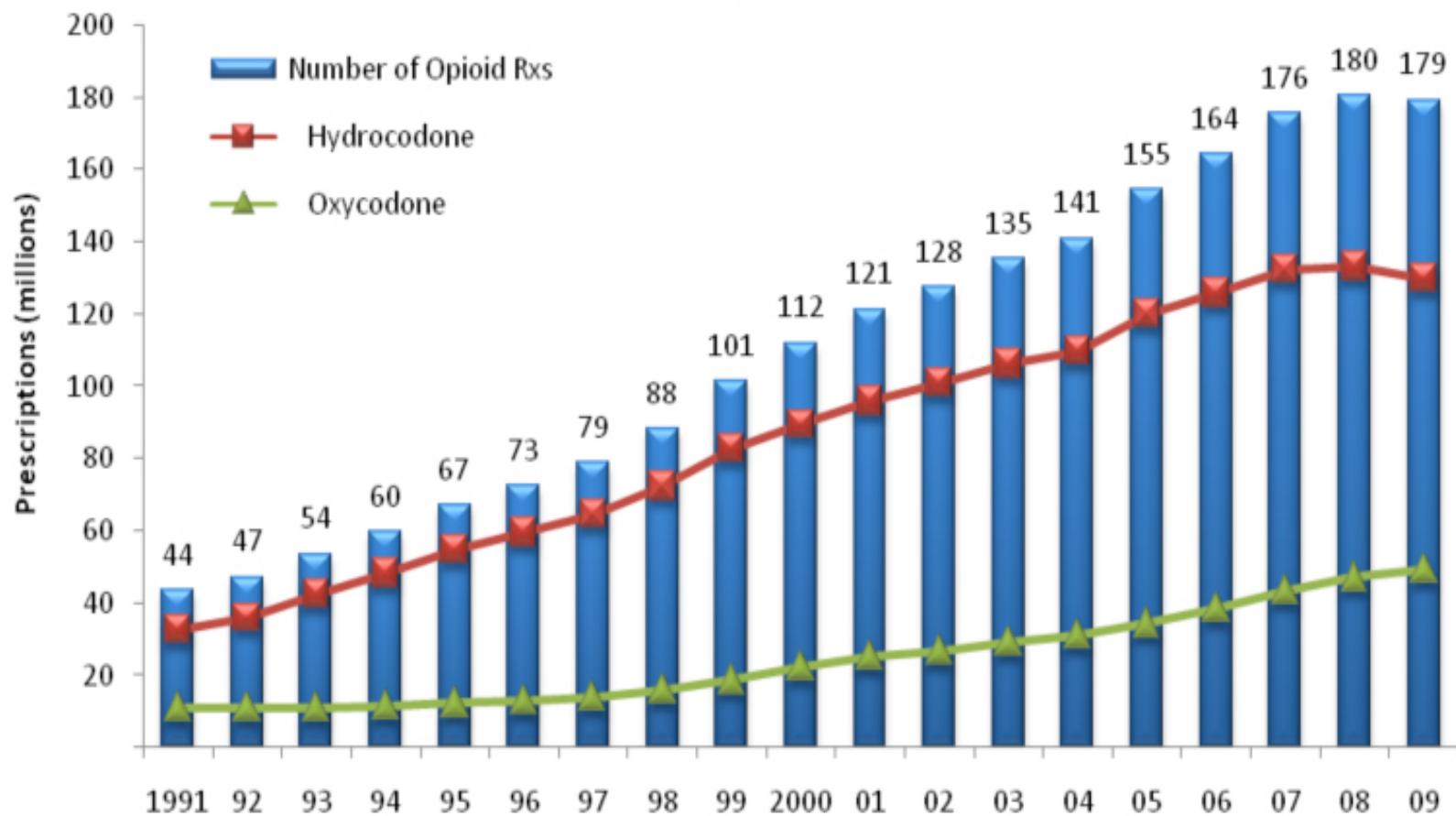
SOURCE: 2009 National Survey on Drug Use and Health (NSDUH).

Illicit drug use **initiates** age 12 or older by drug



SOURCE: Past year illicit drug initiates, 2010 National Survey on Drug Use and Health, SAMHSA.

Total Number of Hydrocodone and Oxycodone Prescriptions, Dispensed by US Retail Pharmacies, Years 1991-2009



Source: SDI Vector One®: National (VONA) 09-30-10 Hydrocodone & Oxycodone 1991-2009

**210 million opiate
prescriptions**

SO

**Drugs abusers will use
WHAT?
whatever's available.**

**Rx narcotics
are now part of the mix.**

Methods of Diversion

Practitioners / Pharmacists

- Illegal distribution
- Self abuse

Employee pilferage

- Hospitals
- Practitioners' offices
- Nursing homes
- Retail pharmacies
- Manufacturing / distribution facilities

Pharmacy / Other Theft

- Armed robbery
- Burglary (Night Break-ins)
- In Transit Loss (Hijacking)

Patients

- Drug rings
- Doctor-shopping
- Forged / fraudulent / altered Rxs
- The medicine cabinet
- Trading drugs for sex

The Internet

HIGH ADDICTIVE POTENTIAL

Factors that influence:

- Reward/pleasure center of brain,
- Memory area of brain,
- Genetic, environmental factors interacting with drug/drug effect

HIGH OVERDOSE POTENTIAL

Factors that influence:

- purity,
- tolerance,
- coingestants

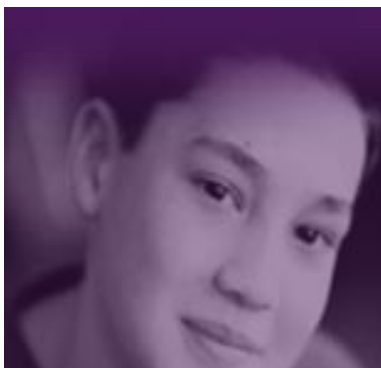
SNAPSHOT on YOUTH

- More teens abuse prescription drugs than any illicit drug except marijuana.
- Every day 2,500 youth age 12 to 17 abuse a prescription pain reliever for the first time.
- In 2008, more than 2.1 million teens ages 12 to 17 reported abusing prescription drugs.
- Among 12- and 13-year-olds, prescription drugs are the drug of choice.
- Because these drugs are so readily available, and many teens believe they are a safe way to get high, teens who might not otherwise touch illicit drugs may be inclined to use prescription drugs.
- Not many parents are talking to teens about prescription drug abuse, even though teens are influenced by parental disapproval and see it as a powerful way to keep them away from drugs.

SOURCE: [Substance Abuse and Mental Health Services Administration \[SAMHSA\]](#). (2009).

National Survey on Drug Use and Health, 2008 , Ibid, Partnership for Drug-free America, Partnership Attitude Tracking Study [PATS] 2007

Attitudes about Rx Pain Relievers:



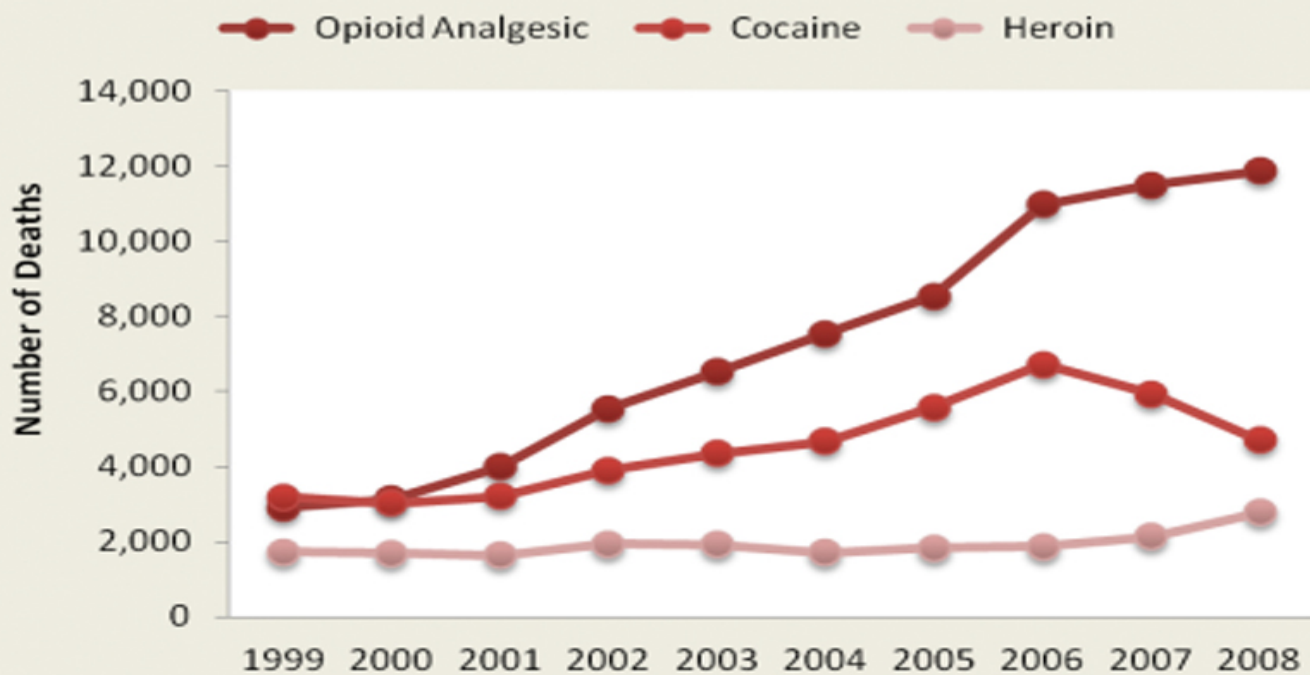
2 in 5 teens believe that Rx meds are “much safer” than illegal drugs

31 percent of teens believe there’s “nothing wrong” with using Rx meds without a prescription “once in a while”



Nearly 3 in 10 teens believe Rx pain relievers are not addictive

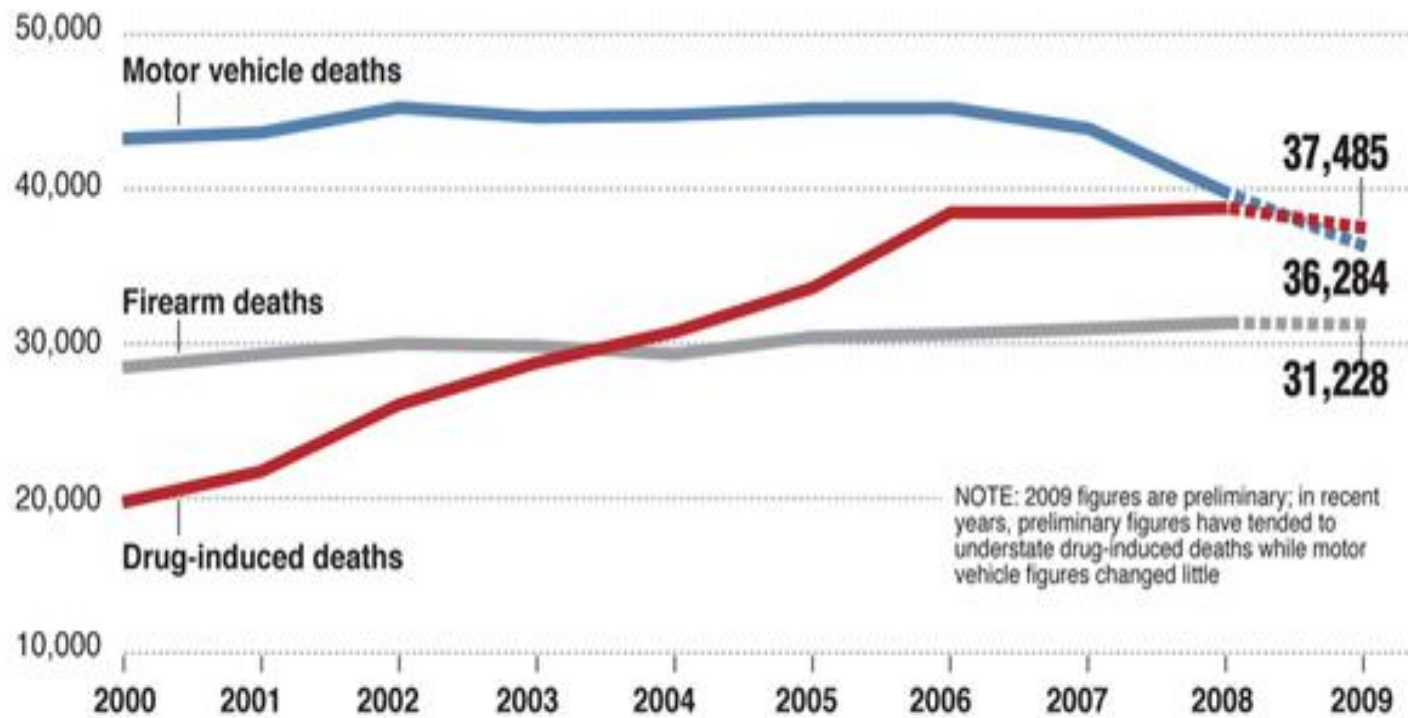
Unintentional Drug Overdose Deaths by Major Type of Drug, United States, 1999-2008



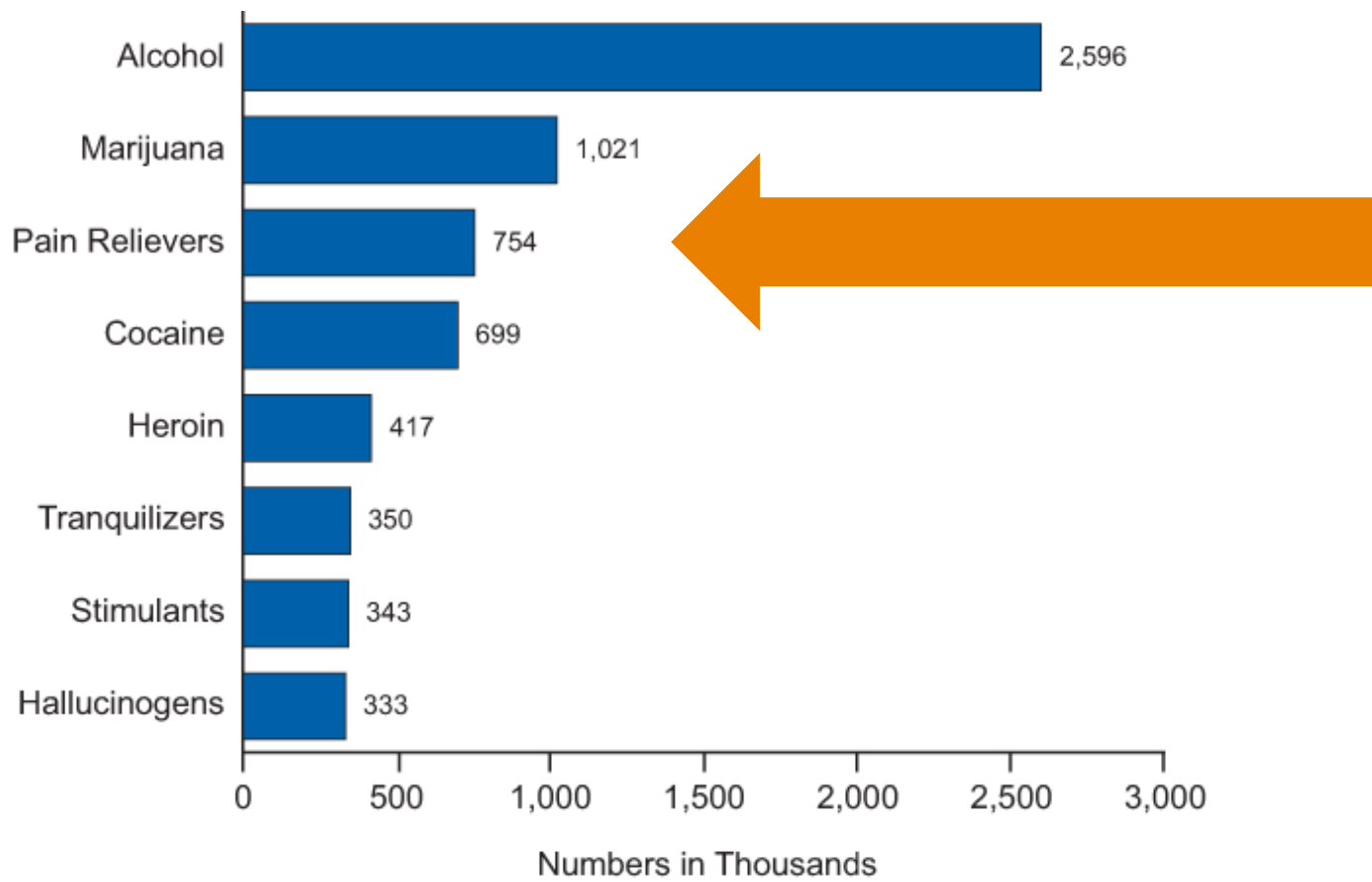
Historic shift

Drug-induced deaths, pushed by an increase in prescription narcotic overdoses, outnumbered motor vehicle deaths, according to preliminary government data for 2009.

Preventable deaths from drugs, motor vehicles and firearms

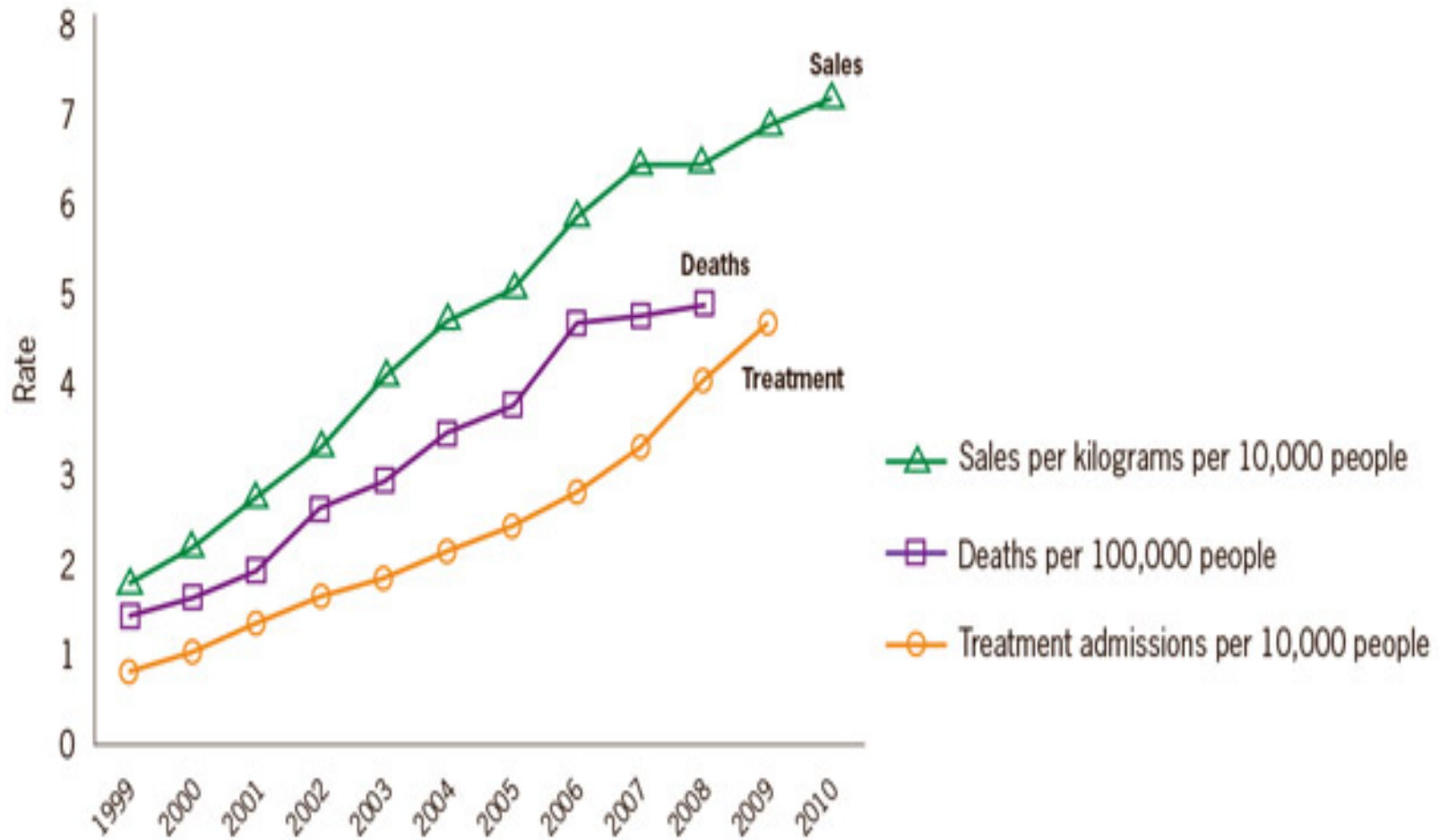


Past Year Treatment Was Received by Primary Substance among persons aged 12 or older: 2010



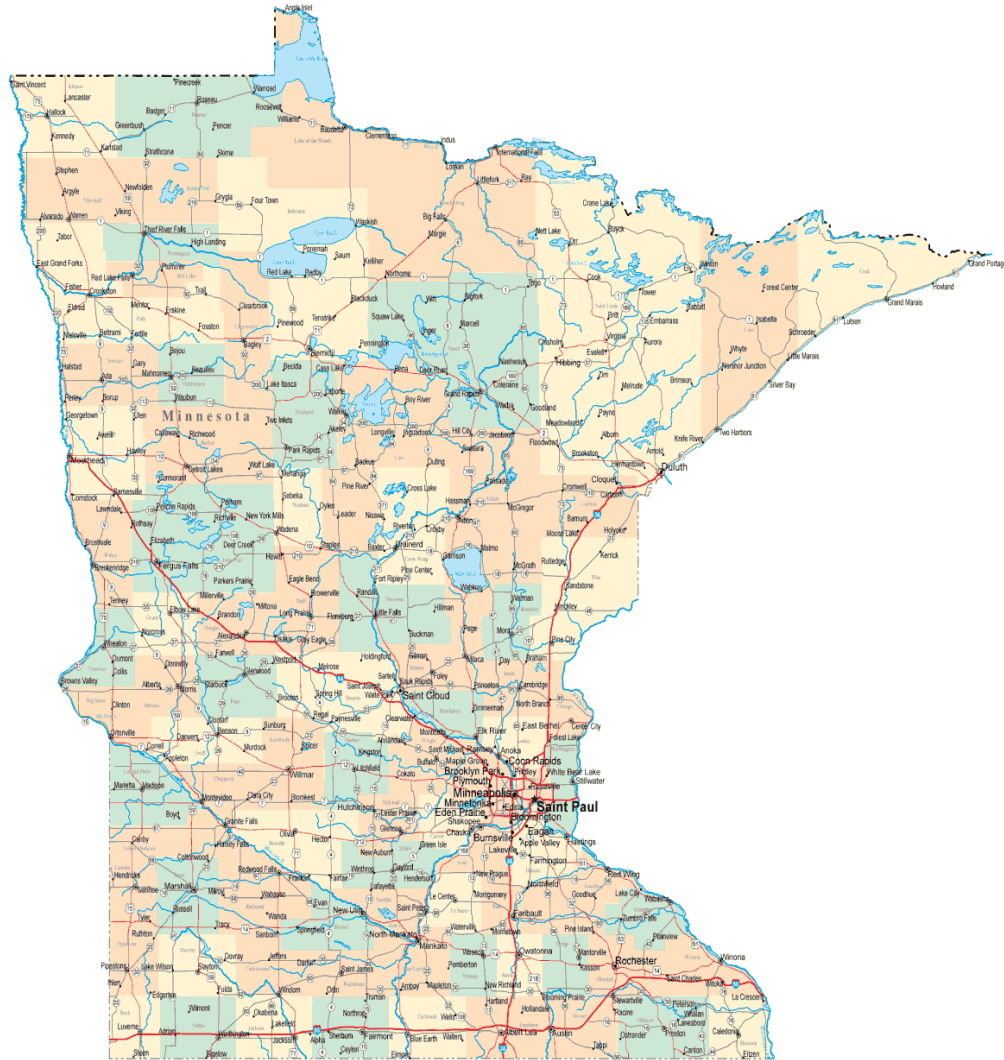
SOURCE: 2010 National Survey on Drug Use and Health, SAMHSA.

Rates of prescription painkiller sales, deaths and substance abuse treatment admissions (1999-2010)

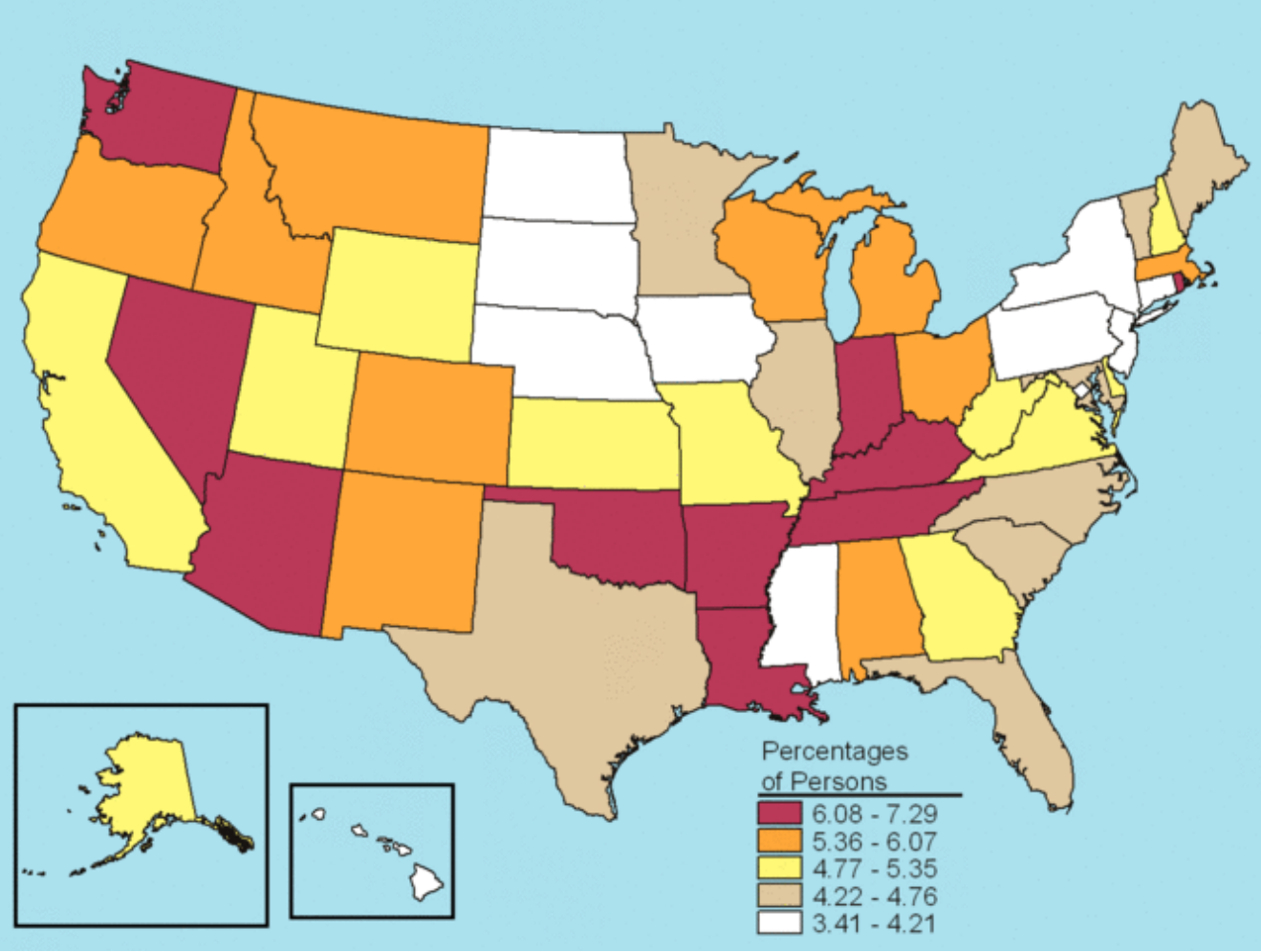


SOURCES: National Vital Statistics System, 1999-2008; Automation of Reports and Consolidated Orders System (ARCOS) of the Drug Enforcement Administration (DEA), 1999-2010; Treatment Episode Data Set, 1999-2009

What about Minnesota?

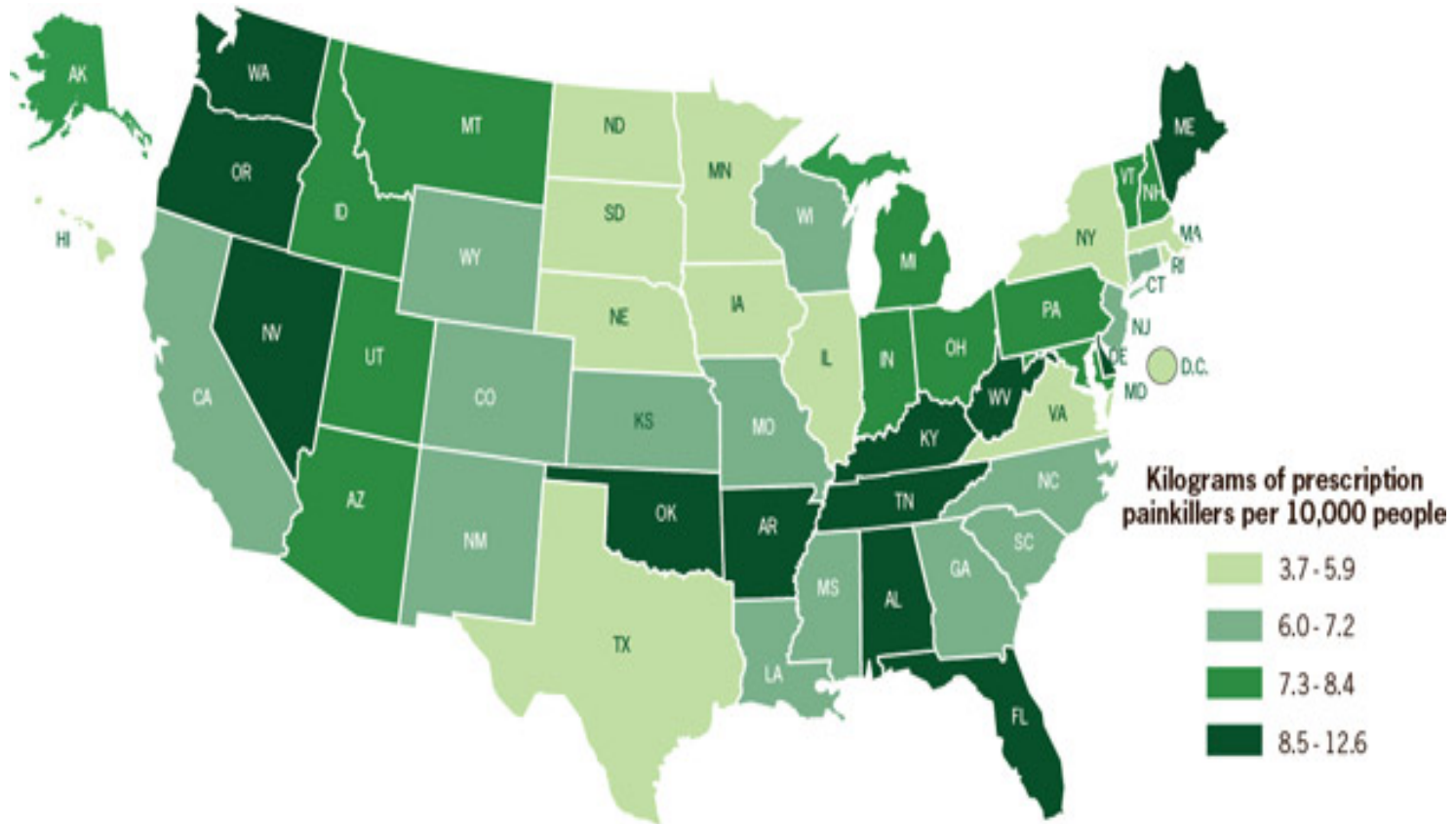


Nonmedical Use of Pain Relievers in Past Year among Persons Aged 12 or Older by State



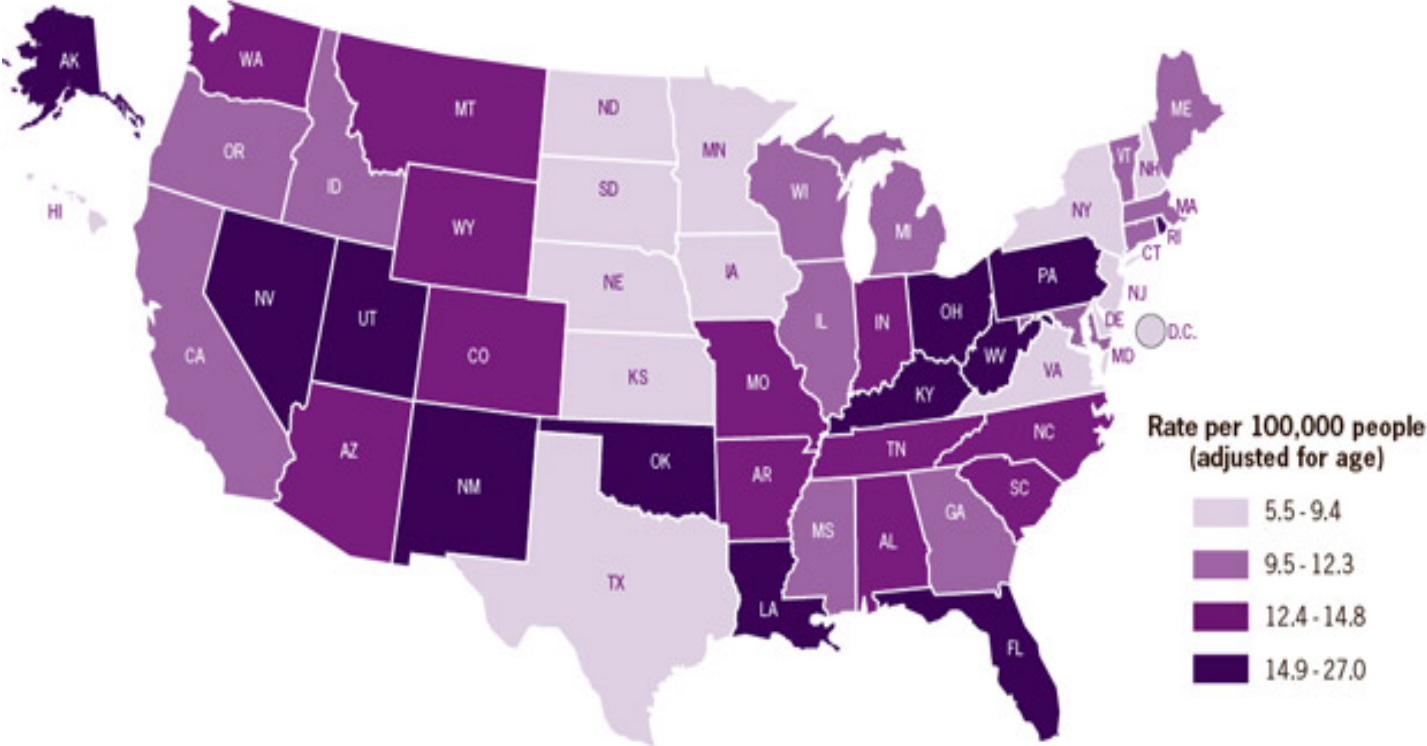
Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2006 and 2007.

Amount of prescription painkillers sold by state per 10,000 people (2010)



SOURCE: Automation of Reports and Consolidated Orders System (ARCOS) of the Drug Enforcement Administration (DEA), 2010

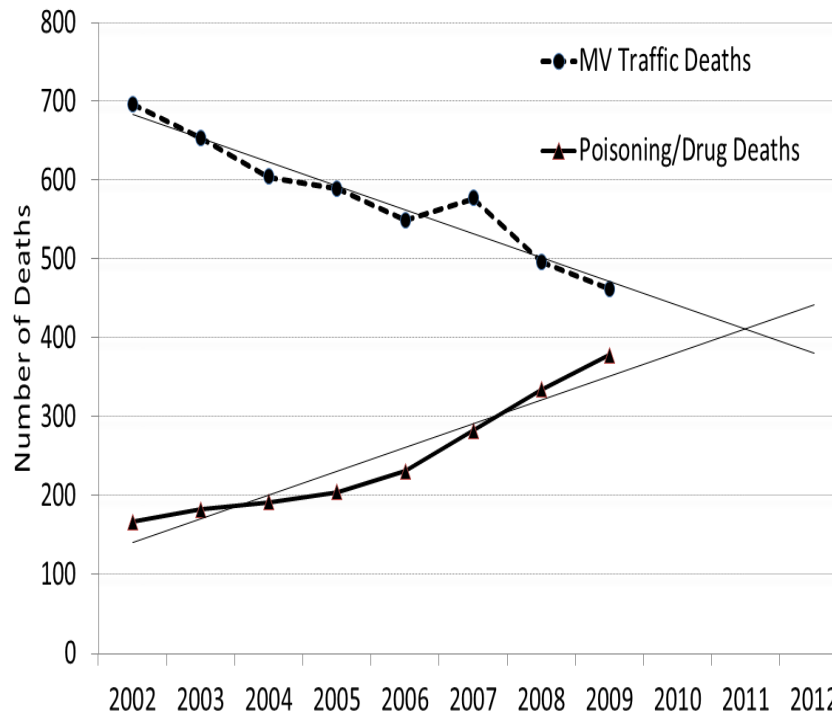
Drug overdose death rates by state per 100,000 population (2008)



SOURCE: National Vital Statistics System, 2008 www.cdc.gov/VitalSigns/PainkillerOverdoses/index.html accessed 11/3/2011

Minnesota's unintentional drug induced deaths will soon exceed the number of motor vehicle fatalities.

Minnesota unintentional poisoning/drug and motor vehicle traffic deaths



SOURCE: Centers for Disease Control and Prevention (CDC), National Center for Health Statistics. Underlying Cause of Death 1999-2009 on CDC WONDER Online Database, released 2012. Accessed at <http://wonder.cdc.gov/ucd-icd10.html> on Apr 24, 2012 1:09:45 PM

Law enforcement seizures of heroin and prescription opiates continue to escalate.

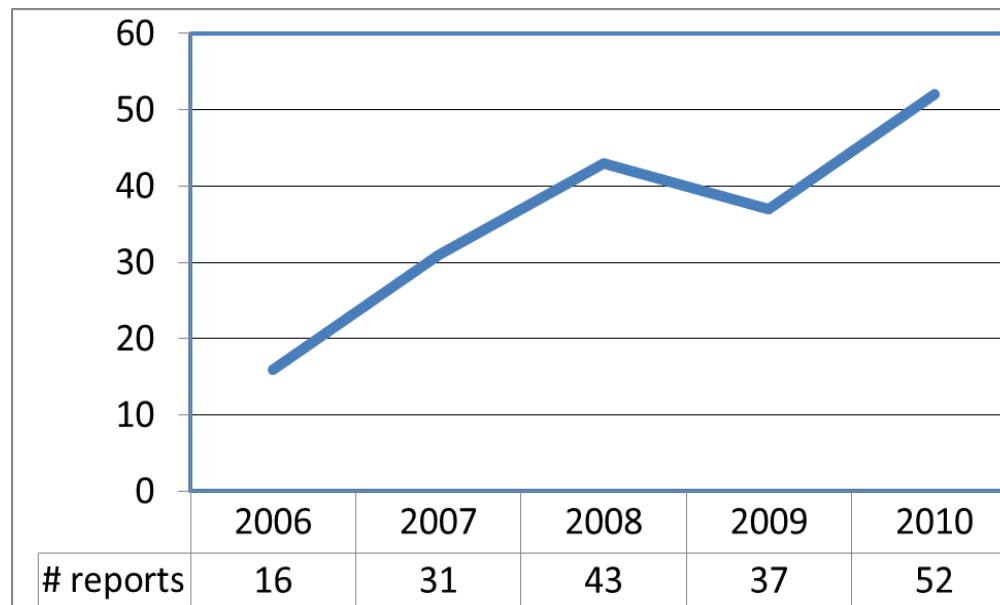
Opiate Summary 2010 - 2011: Minnesota Drug Task Forces

	2010	2011	percent change 2010 to 2011
Heroin seized (grams)	228	406	78
Heroin arrests	108	196	81.5
Oxycodone seized (dosage units)	944	3,409	26.1
Pill arrests	483	531	10

SOURCE: Minnesota Office of Justice Programs, Minnesota Department of Public Safety, 2012. As of January 2012, there are 23 multijurisdictional law enforcement drug and violent crime task forces operating throughout Minnesota, staffed by over 200 investigators from over 120 agencies.

Thefts of controlled substances, mostly prescription narcotics, from Minnesota pharmacies are increasing.

Theft or loss of controlled substances in Minnesota reported to the DEA: 2006 - 2010



SOURCE: Minnesota Department of Health from the U.S. Drug Enforcement Administration. Compiled from "Form DEA-106, Theft or Loss of Controlled Substances." This form is filed to report a theft or loss of controlled substances due to "employee pilferage" or "other" that occurred at a Minnesota hospital pharmacy, clinic pharmacy, retail pharmacy physically co-located in a clinic or hospital, or practitioners who were licensed to store controlled substances for use by patients (e.g., outpatient surgery center).

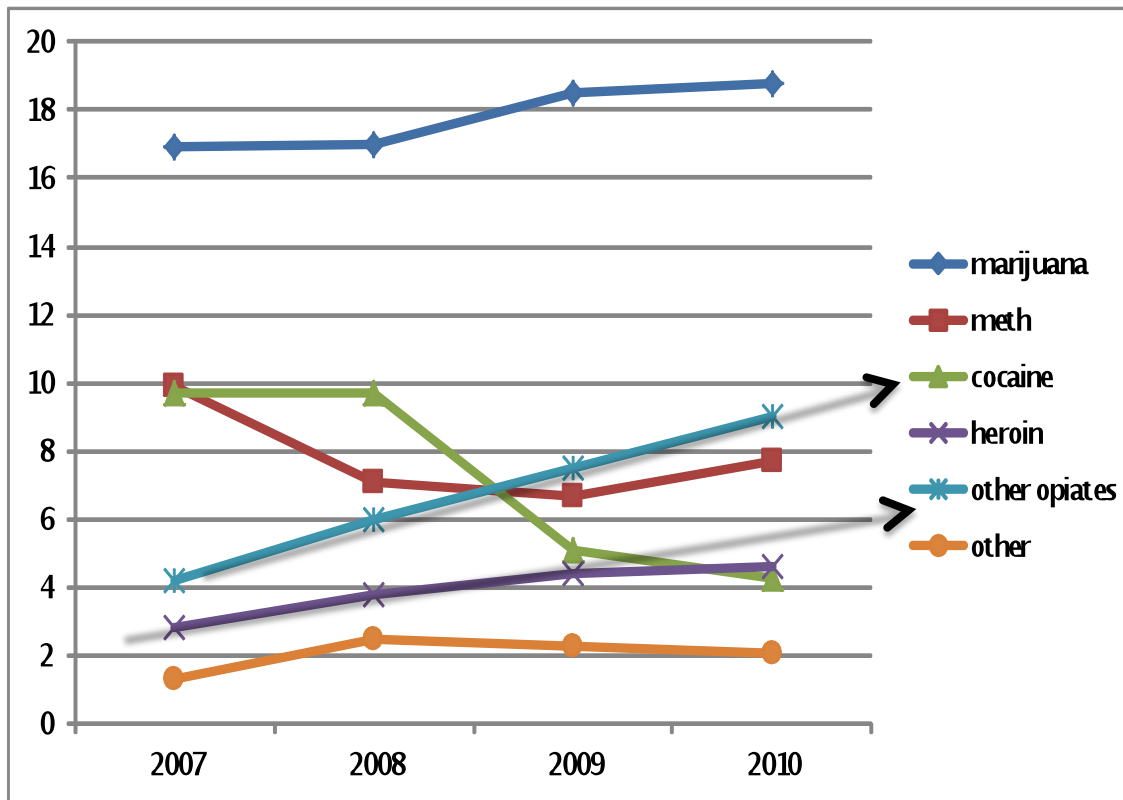
In 2011 the Red Lake Nation, Leech Lake Band of Ojibwe, and the White Earth Band of Chippewa declared public health emergencies due to prescription opiate and illegal drug abuse on their reservations.



Admissions to addiction treatment for heroin and other opiates are rising throughout the State.

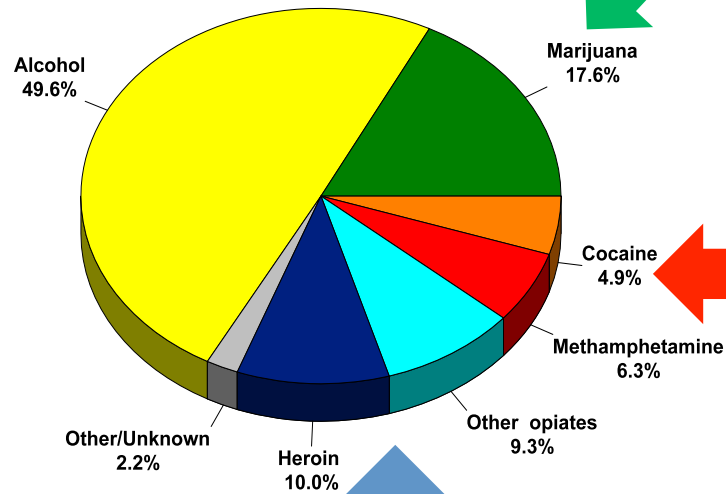
Minnesota statewide addiction treatment admissions by primary substance of abuse: 2007 – 2010

Percent of patients



SOURCE: Drug and Alcohol Abuse Normative Evaluation System, Minnesota Department of Human Services, Performance Management and Quality Improvement Division.

Percent of admissions to Twin Cities addiction treatment programs by primary substance problem - 2011 (first half)



Marijuana admissions (17.6 percent) for 1st time are lower than percent for heroin/ other opiates.

Cocaine and meth together account for 11.2 percent of all admissions to treatment. At peak of meth epidemic (2005), meth admissions alone were 12 percent.

SOURCE: Drug and Alcohol Abuse Normative Evaluation System (DAANES) Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services, 2011. Total number of admissions from January through June 2011 = 10,225.

Heroin and other opiates now account for 19.3 percent of all admissions to treatment.

UNPRECEDENTED

Mexican heroin price and purity in Minneapolis: 2007 – 2009

	2007	2008	2009
purity	59.9%	54.75%	53.35%
\$/pure milligram	\$0.29	\$0.26	\$0.25
# qualified samples	16	13	4

SOURCE: US Drug Enforcement Administration, US Department of Justice, *2009 Heroin Domestic Monitor Program*, DEA-NCW-RPT-013-10, November, 2010.

What you can do:

Goal of the White House Office of National Drug Control Policy Federal blueprint for reducing prescription drug abuse:

To reduce the nonmedical abuse of Rx drugs, and ensure access to Rx medication used legitimately

Requires community collaboration and cooperation across multiple levels of government and tribes.

What you can do:

EDUCATION

- Of parents, peers, patients, dispensers, and health care providers
Scope: Appropriate prescribing, adverse events, signs of abuse/abuse risk; signs of addiction; storage of medications, and disposal of medications
- Working with physicians to achieve consensus standards on opiate painkiller prescribing.

What you can do:

PRESCRIPTION DRUG MONITORING PROGRAM

To help identify individuals who inappropriately obtain excessive amounts of controlled substances from multiple prescribers and pharmacies.

Minnesota PMP since 2010

Approved users for the PMP database = **4,031**

What you can do:

DISPOSAL

- The goal is easy to use, environmentally friendly disposal options to reduce amount and availability.
- Initiate or participate in drug Take Back Days.
In 2011 over 4,000 sites across the country took back 188 tons.

What you can do:

LAW ENFORCEMENT

- Heighten interdiction
- Disrupt/dismantle drug trafficking organizations,
- Share intelligence and investigative information across departments and jurisdictions.

Synthetic Drugs of Abuse

Synthetic =
man made substance
(not naturally-occurring)



“Chemgrass”

a.k.a. **Astro Turf**



1964

1983
The Polyester Leisure
Suit



The manufacture and sale of “designer drugs” made solely for producing pharmacologic effects that are similar to those of illegal drugs of abuse is ***not*** a recent development.

What’s new is their sale disguised and marketed as legitimate substances (like bath salts and incense), and the large number of people actually purchasing and using them.

Synthetic Drugs of Abuse

- **“Research chemicals”**
- **Synthetic THC**
- **Bath salts**

Synthetic Drugs of Abuse

**The possession and sale
of these is banned in
Minnesota since 2011**

Senator Klobuchar urges federal ban on synthetic drugs

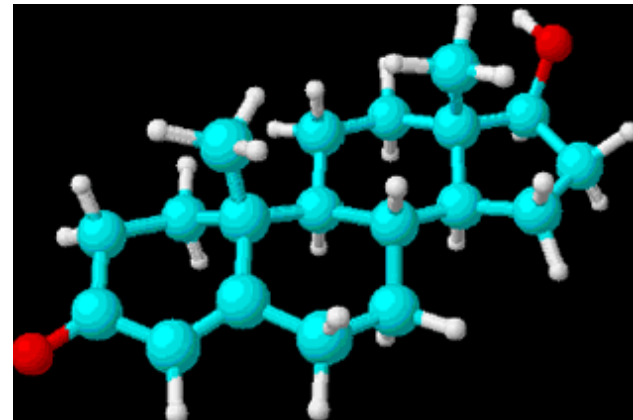


U.S. Senator Amy Klobuchar, left, held a panel discussion with local officials on the danger of synthetic drugs Sunday at the Moorhead Law Enforcement Center.

SOURCE: 2/19/2012, *The Fargo-Moorhead Forum*

“Research chemicals”

- Depicted as research to be used by fellow researchers
- Most contain phenylethylamines – long-acting hallucinogens
- Include: 2-CB “Nexus”
2C-E “Europa”
2C-I/2 C-T-7



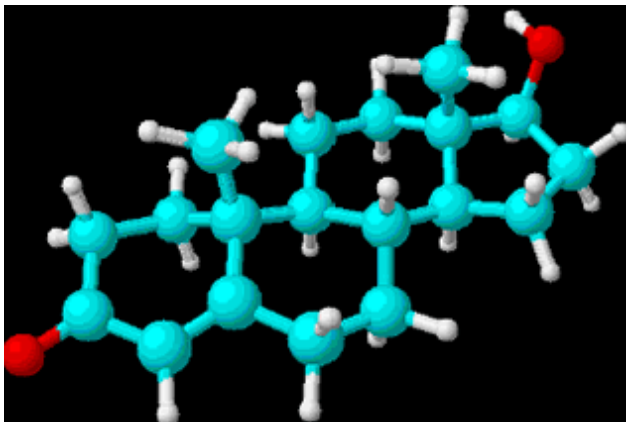
“Research chemicals”

- Typically used by teenagers and young adults and at parties, nightclubs, and other venues where the use of other drugs, such as MDMA (3,4-methylenedioxymethamphetamine, a.k.a. ecstasy), is well-established.

- Phenylethylamines produce negative physical and psychological effects in users.

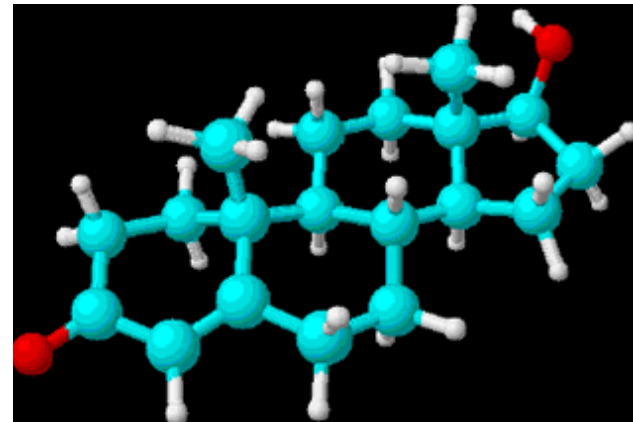
Physical effects include visual and auditory disturbances and distortions, increased blood pressure, blurred vision, dehydration, dilated pupils, headaches, irregular heartbeat, jaw clenching, nausea, and vomiting.

- Psychological effects include emotional distress, hallucinations, inability to sleep, irritability, loss of memory, nervousness, restlessness, and tension.



“Research chemicals”

***“If you like XTC,
you’ll love this stuff!”***



An arrest after a night of drinking, drugs and death

Article by: [PAUL LEVY](#), [DAVID CHANEN](#) and [ERIC ROPER](#) , Star Tribune staff writers / March 18, 2011 - 11:27 PM

A 21-year-old Blaine man was arrested Friday on suspicion of murder for allegedly providing the substance used at a house party that killed one and left 10 hurt.

Jake Kruse got to the party late and walked into a Blaine house strewn with beer bottles. Then teens and young adults began taking a drug that few knew anything about.

Two days later, one of those teens is dead from an overdose of 2C-E, a synthetic hallucinogen, and 21-year-old Timothy Richard Lamere is jailed on suspicion of providing the substance used at the party. The Anoka County Sheriff's Office said he "reportedly purchased, possessed and provided the 2C-E."

The office said Lamere, of Blaine, was arrested Friday on suspicion of third-degree murder in the death of Trevor Robinson, and could be charged Monday.

Eleven partygoers, including Kruse, ended up in a hospital early Thursday after the party, and an 18-year-old woman remained in critical condition Friday. The others have been released.

Synthetic THC products

- Cannabinoid compounds : JWH- 018, JWH-073, JWH-200, CP-47, 497, and cannabicyclohexanol are produced in a lab and sprayed on herbal mixtures
- Marketed as “incense” and sold online and in “head shops”
- There is no regulatory oversight of the manufacturing process
- Bind to same brain cell receptors as THC



Synthetic THC products

The experience:

**anxiety attacks, agitation,
confusion, dangerously elevated
heart rates, increased blood
pressure,
vomiting, paranoia
and hallucinations.**

In March 2011, products that contain synthetic THC chemicals, such as K-2 and Spice, were temporarily designated as Schedule I substances, the most restrictive category under the Controlled Substances Act.



Yet internet sales continue and these
are falsely identified as “legal.”

Our *K2* blends are ^{*}100% legal!



View our entire collection as low as \$7/gram

BUY NOW!

**THE STRONGEST K2
INCENSE EVER MADE**

As featured on...
and other countless publications



SOURCE: <http://buyk2spice.net/> accessed on 9/12/2011

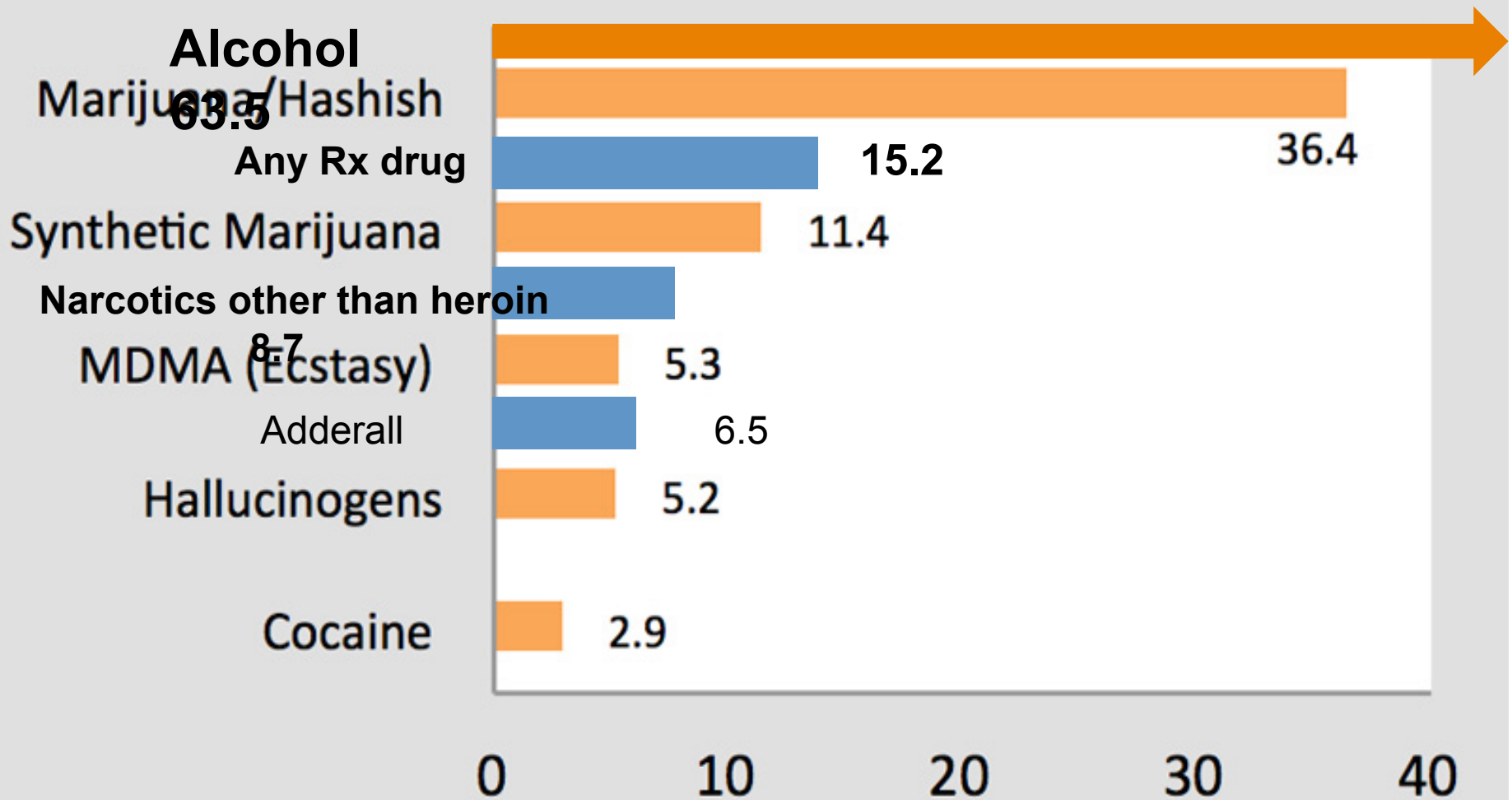


K2 LEGAL SMOKE
ID: 54865
AUTHENTIC DISTRIBUTOR



Accessed: May 17, 2012

Past-Year Use of Illicit Drugs by High School Seniors (percent)



SOURCE: University of Michigan, 2011 Monitoring the Future Study

Bath Salts



Bath Salts

are NOT about the bath.

Variable ingredients.

Variable, unpredictable effects.

Bath Salts

- Also marketed as “Legal” plant food, incense, cleaner, and incense
- Used by snorting, injection and smoking
- Sold in convenience stores, gas stations, tattoo parlors, pawn shops, truck stops
- Users range from teens to 40’s, some with extensive drug abuse and mental illness histories
- *Dateline NBC* tracked a Minneapolis-based manufacturer



Bath Salts

Most commonly found mood-altering substances:

- MDPV (3,4- methylenedioxypropylvalerone),
- mephedrone (4-methylmethcathinone) and
- methyldone (3,4- methylenedioxymethcathinone)
- Similar in structure to meth and MDMA



Bath Salts

Human consumption has resulted in:

- Hallucinations
- Severe psychotic episodes
- Self-inflicted wounds
- Extreme delusional states
- Violent outbursts
- Extreme paranoia
- Suicidal thoughts/actions



DEA Moves to Emergency Control Synthetic Stimulants

Agency Will Study Whether To Permanently Control Three Substances

SEP 07, 2011 -- WASHINGTON, D.C. – The United States Drug Enforcement Administration (DEA) is using its emergency scheduling authority to temporarily control three synthetic stimulants (Mephedrone , 3,4 methylenedioxypropylamphetamine (MDPV) and Methylone). **This action was necessary to protect the public from the imminent hazard posed by these dangerous chemicals.** Except as authorized by law, this action will make possessing and selling these chemicals or the products that contain them illegal in the U.S. for at least one year while the DEA and the United States Department of Health and Human Services (DHHS) further study whether these chemicals should be permanently controlled.

A Notice of Intent to temporarily control was published in the Federal Register today to alert the public to this action. This alert is required by law as part of the Controlled Substances Act. In 30 days or more, DEA intends to publish in the Federal Register a Final Order to temporarily control these chemicals for at least 12 months, with the possibility of a six-month extension. The final order will be published in the *Federal Register* and will designate these chemicals as Schedule I substances, the most restrictive category, which is reserved for unsafe, highly abused substances with no currently accepted medical use in the United States.

Internet sales – synthetic substances

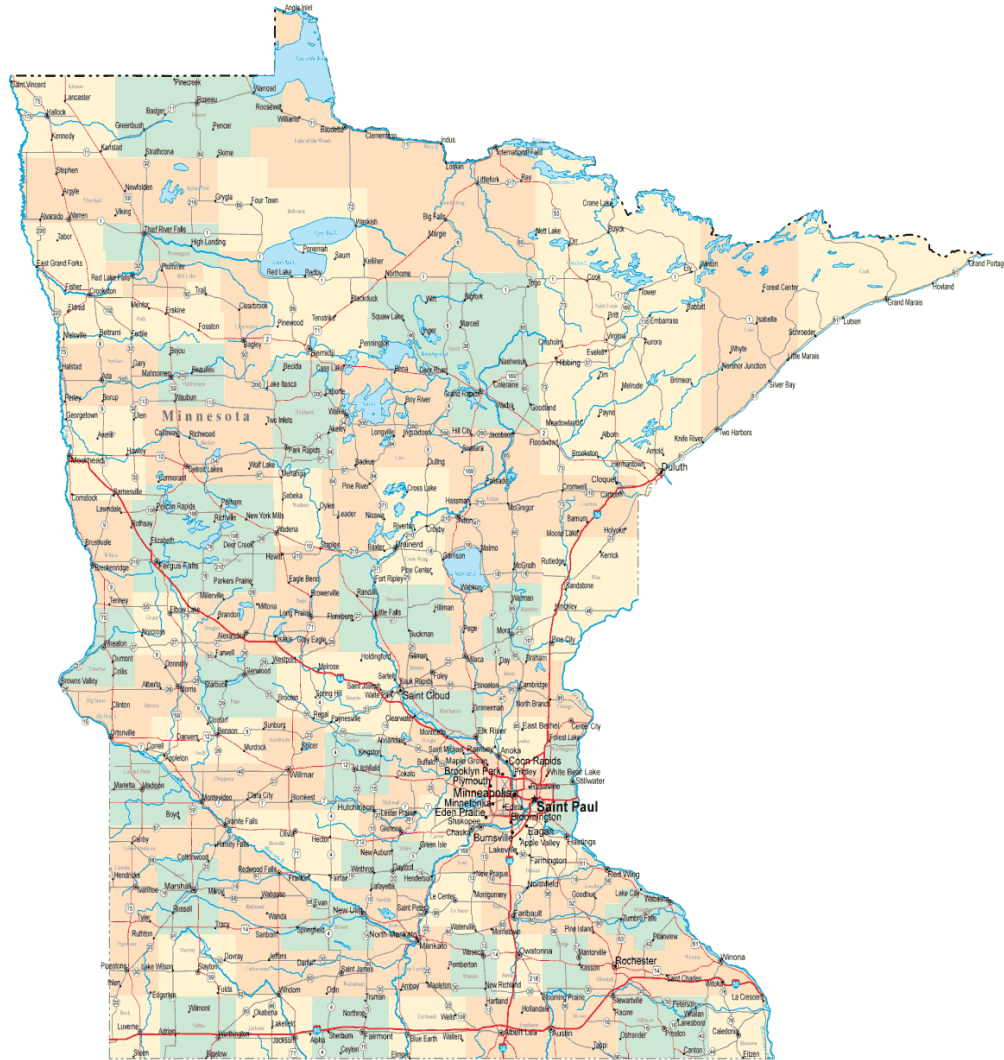
- **Primary source. Direct to consumer.**
- **Buying online is the norm**
- **Limiting online sales = an emerging area of law**
- **Discussion boards, social networks spread the word -- create an instant and global “buzz”**

SO

**Drug abusers will use
WHAT?
whatever's available.**

**Buying “drug impersonators”
online is now part of the mix.**

What about Minnesota?



Exposures to selected drugs reported to Hennepin Regional Poison Center : 2009 through 2011

	2009	2010	2011
THC Homologs	-	28	149
Bath Salts	-	5	144
2CE and Analogues	5	10	23
LSD	9	7	15
MDMA	42	26	24



SOURCE: Hennepin Regional Poison Center, Hennepin County Medical Center, January 2012.

HEROIN and OTHER OPIATES

continued upward trends since 2000

COCAINE

deaths

continued declines in TX admissions and

MARIJUANA

prominent in TX admissions and student data

METH

overall declines since 2005

SYNTHETIC DRUGS

significant increases in Poison Control data.



