

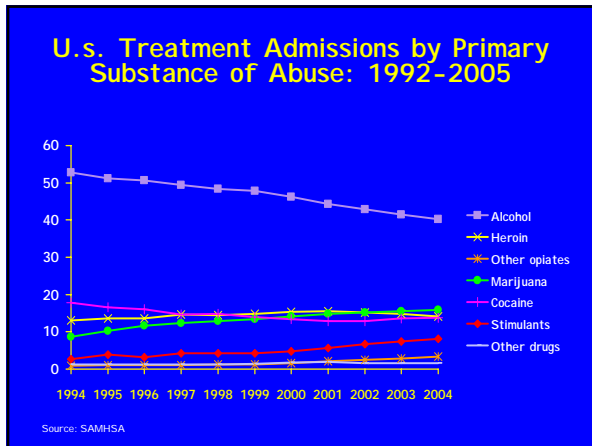
Epidemiology of Drug Addiction

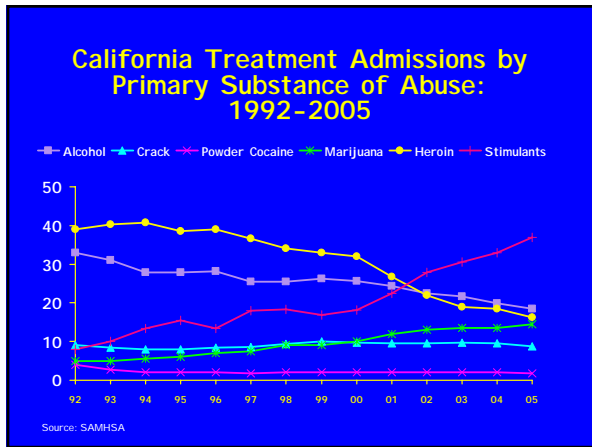
Jane C. Maxwell, Ph.D.
Center for Excellence in Drug Epidemiology
Gulf Coast Addiction Technology Transfer Center
www.gcattc.net

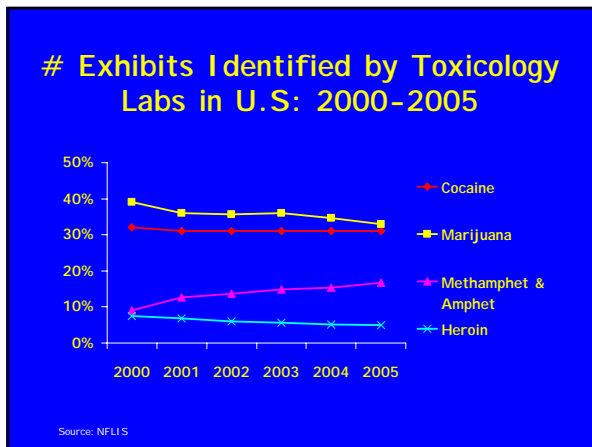
There is no conflict of interest

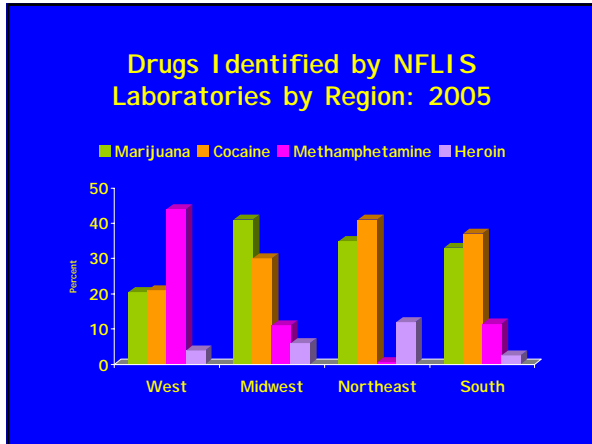
Data Sources

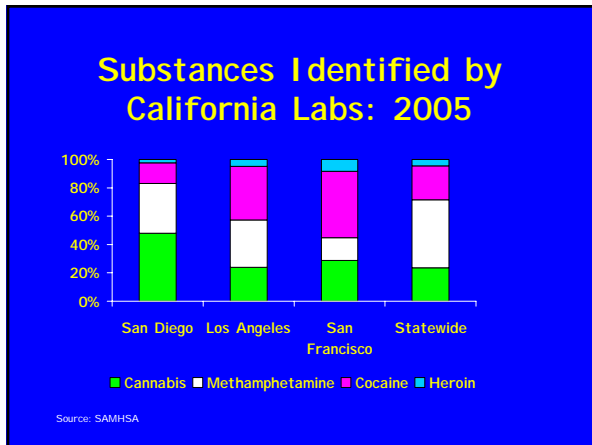
- Community Epidemiology Work Group (NIDA)
- Treatment admission records (TEDS-DSHS)
- Emergency room data (DAWN)
- Price, purity, supply, trafficking data (DEA)
- Surveys (National & DSHS)
- Forensic laboratory tests by DEA and DPS
- Maxwell, J. C et al. (2006). Drug use and risk of HIV/AIDS on the Mexico-U.S. Border: A comparison of treatment admissions in both countries. *Drug and Alcohol Dependence*.
- Maxwell, J. C. Substance Abuse Trends in Texas: June 2006. at www.gcattc.net.









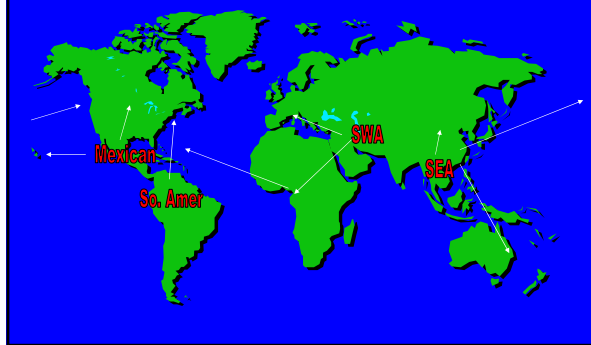




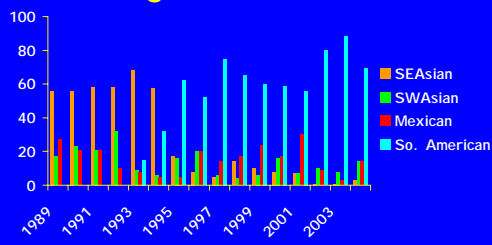
Opiates

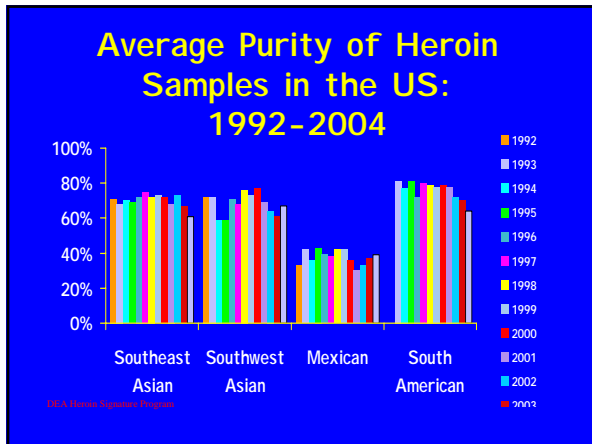
- Black tar heroin, few mentions of stronger "white" heroin west of the Mississippi.
- "Cheese" is Tylenol PM and 1% heroin. Kids mix it up themselves. Concentrated in a few Dallas schools.
- Fentanyl is patches in the West, not the rogue powder seen in the Northeast (where heroin is also a white powder).

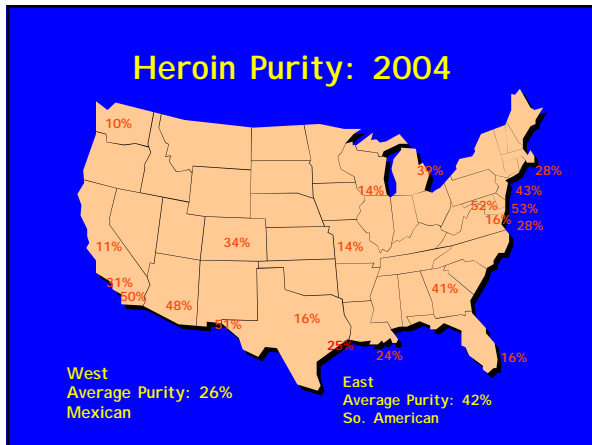
Heroin Sources and Supply Routes



Sources of Heroin Seized in US Based on Net Weight: 1989-2004

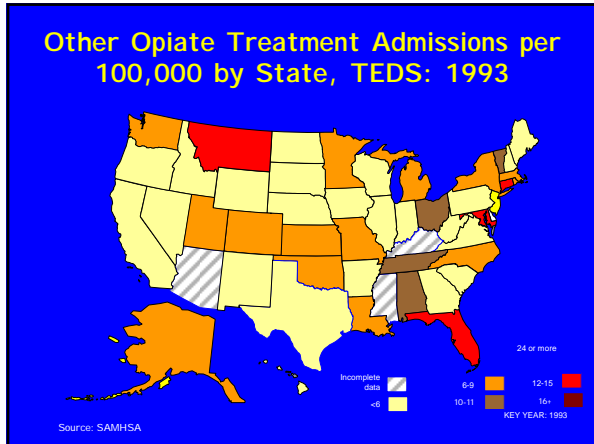


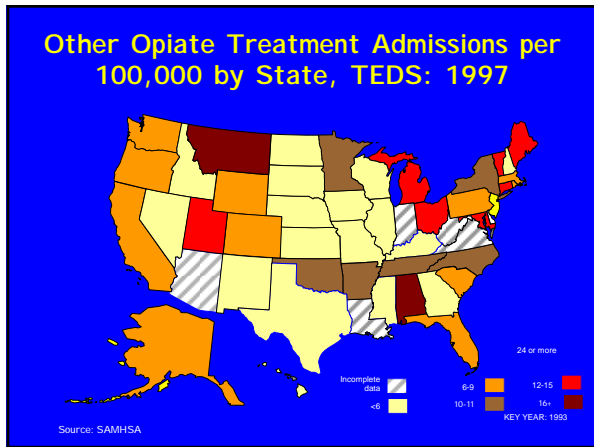


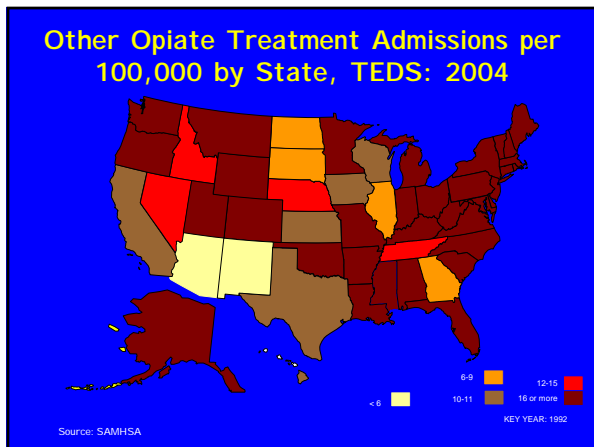


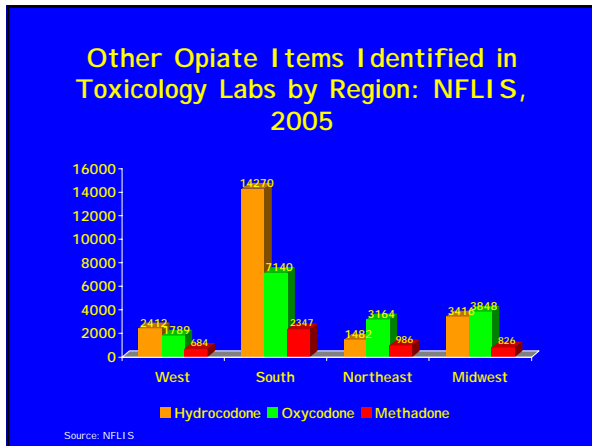
OTHER OPIATES

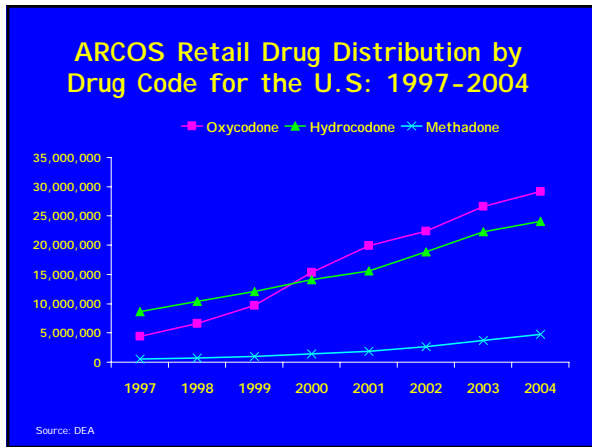
- Abuse of different opiates varies by region.
- Problem with methadone pain pills (as compared to diskettes and syrup used in narcotic treatment programs).
- Codeine cough syrup and rap music.
- Kids like pills because easy to get from home, not illegal, cheap, claim it's prescribed for them if caught, fewer side effects than street drugs, less stigma, parents won't get as upset as if using illicit, etc. (From Partnership for a Drug Free America's PATS Survey).

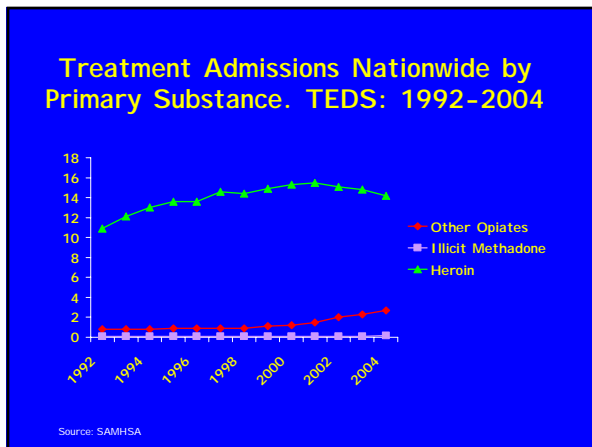


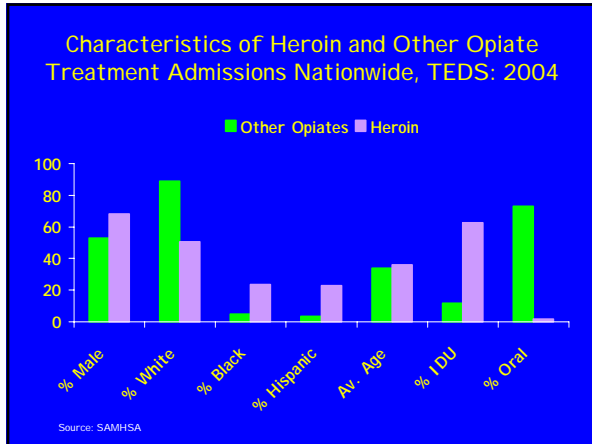


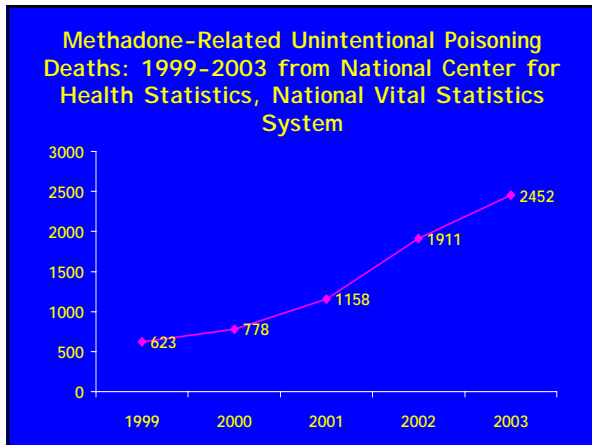


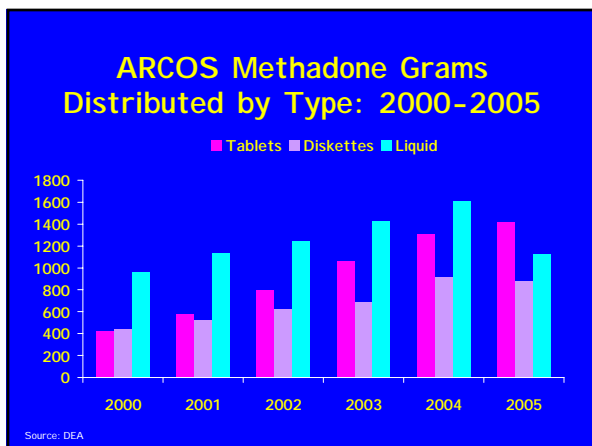






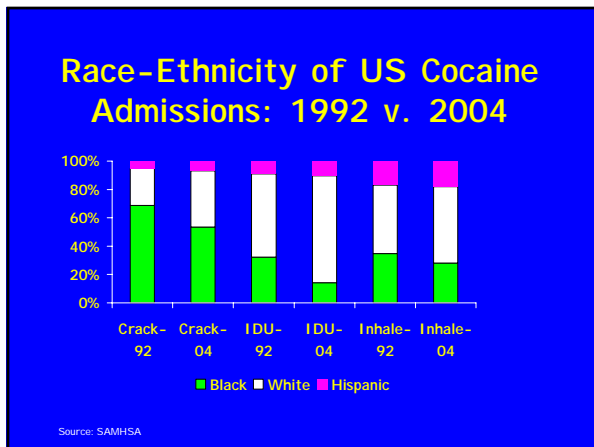






COCAINE Still Around— with New Users

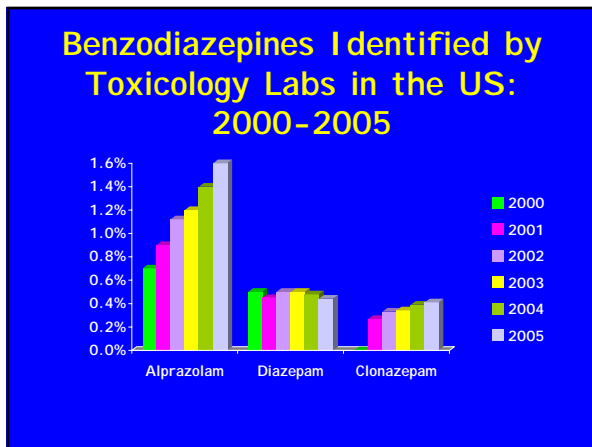
- ### Cocaine
- Methamphetamine outselling cocaine and crack in some areas in Texas; coke dealers now fronting cocaine to compete—or shifting to selling Ice.
 - Purity of cocaine increasing.
 - Still around with new users.
 - Proportion of crack treatment admissions who are Anglo or Hispanic continues to increase.
 - Injecting crack.





DOWNERS

- Potentiate low-quality heroin (and seen in heroin overdoses)
- Come down from speed or cocaine trips
- Dependence among females
- Kids like alprazolam (Four Bars).

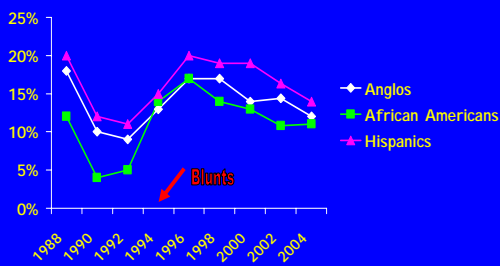


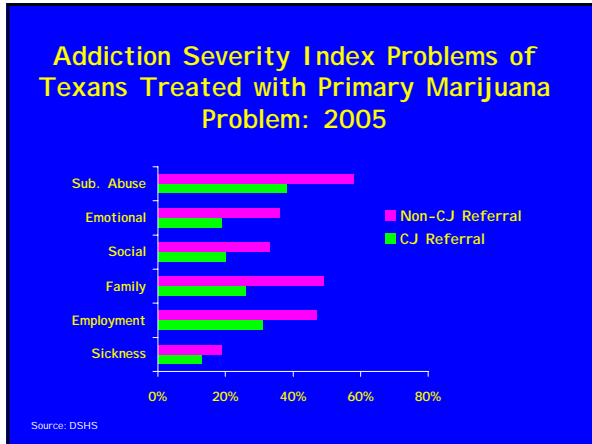
MARIJUANA

- Fairly stable.
- Influence of Blunts and Wraps
- Use with Fry, PCP, DANK, crack, cough syrup, honey, etc., continues.
- Continuing references to pot and PCP and embalming fluid (ether).
- CJ v. Non-CJ treatment admissions

- Primos--marijuana joint and crack.
- Fry, Amp--joint and embalming fluid (PCP?)
- Fry Sticks & Fry Squares--\$10 each.
- Fry Sweets--blunts in embalming fluid.
- Sweet Houses--sell ready-mades.
- Candy Blunts--cigarillos in codeine cough syrup.
- Sherms--menthol cigarettes in embalming fluid.

% Texas Secondary Students Who Had Used Any Illicit Drug in the Past Month, by Ethnicity: 1988-2004



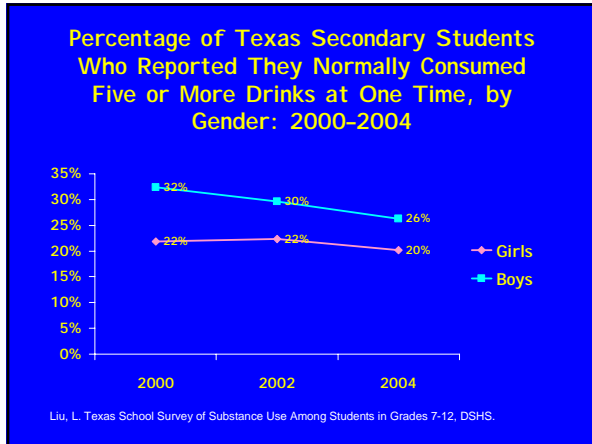


Cannabis Treatment Outcomes Among Texas Clients

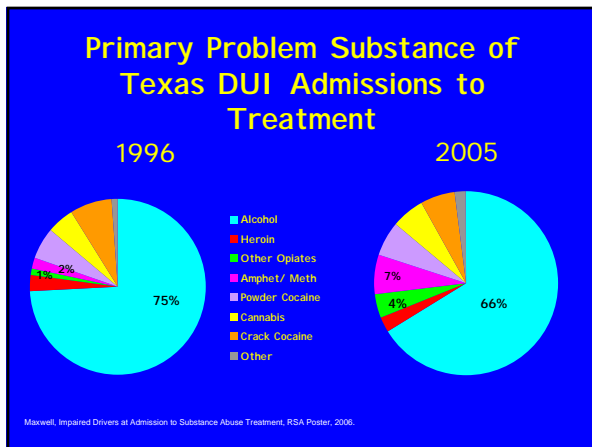
- Criminal justice admissions to treatment were less impaired, more likely to complete treatment (42% v. 34%), and abstinent from cannabis at follow-up (76% v. 66%).
- 55% of all clients met criteria for cannabis dependence.
- CJ clients received less intensive services.
- Although DSM-IV underreported, voluntary more likely to have mood depressive disorder and be prescribed medications for mental health problems.

J. Copeland & J. Maxwell, under review, 2006.

Alcohol

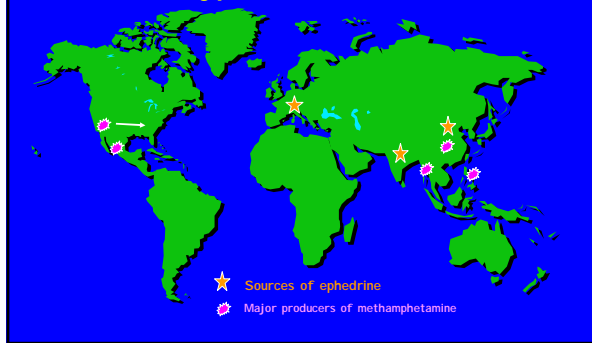






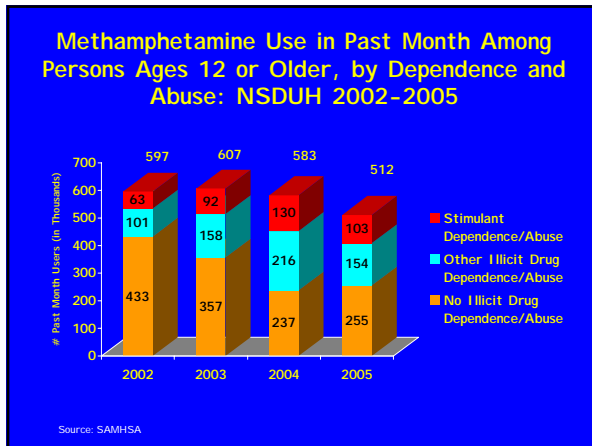
Methamphetamine

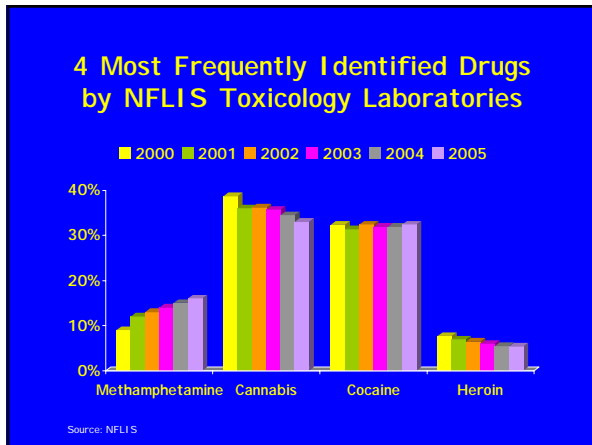
Sources of Amphetamine-Type Substances

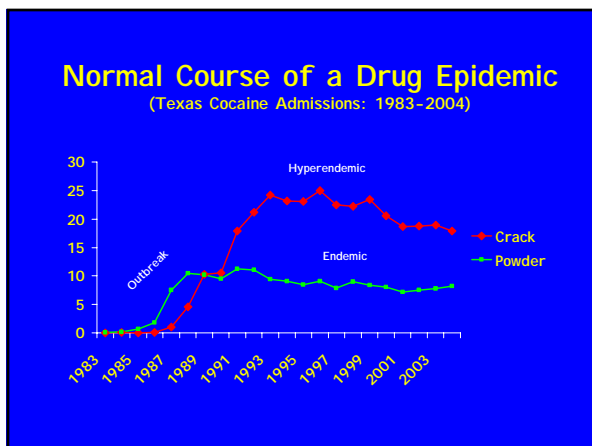


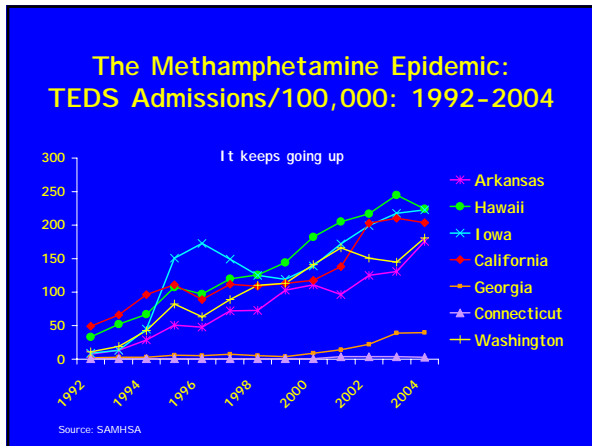
Crack/Meth Pipe





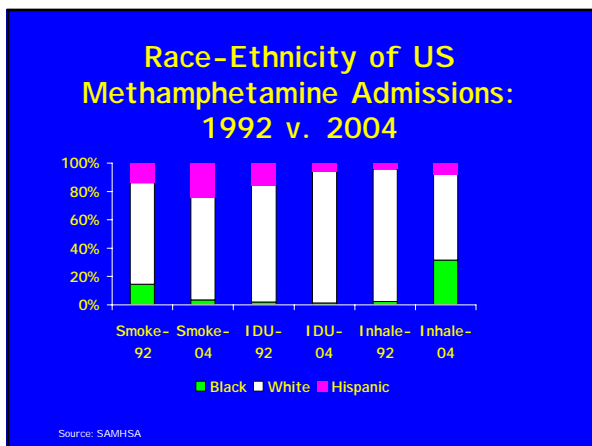


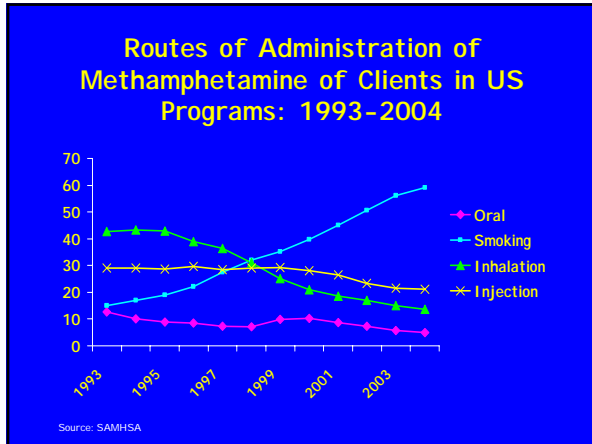


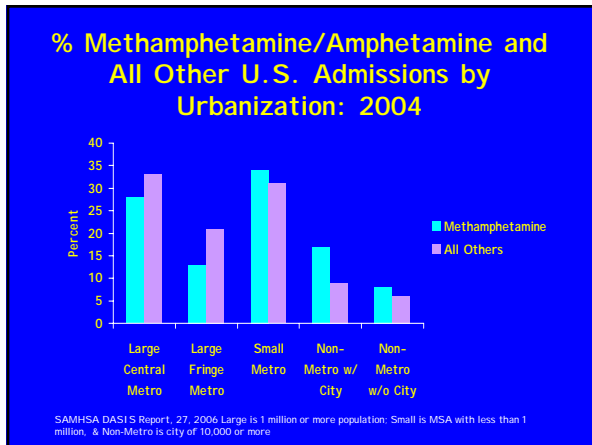


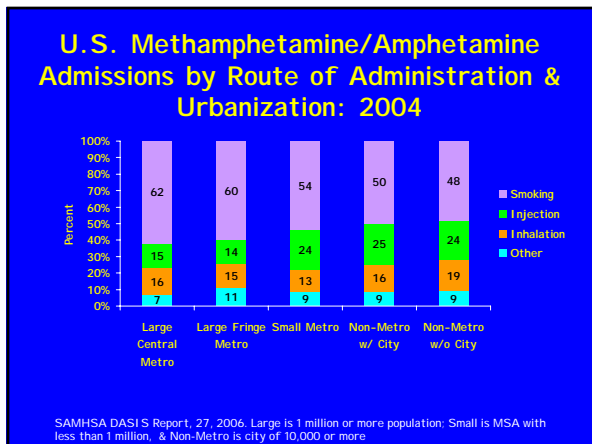
Stages of Meth Epidemic?

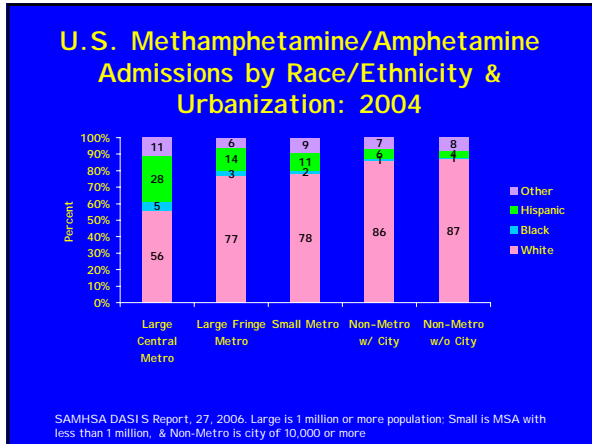
- **Early Stages**—Ice in gay and party scene; powder meth via overnight express from California; crack in urban areas.
- **Middle Stages**—Mom & Pop cookers and large problem in rural areas; crack still strong in urban areas; Mexican meth starts being trucked in to urban areas.
- **Late Stages**—primary problem for treatment admissions; spreads across racial/ethnic groups; Ice is dominant form and powder supply decreases; increasing types of traffickers (criminal groups, ethnic gangs, outlaw bikers).

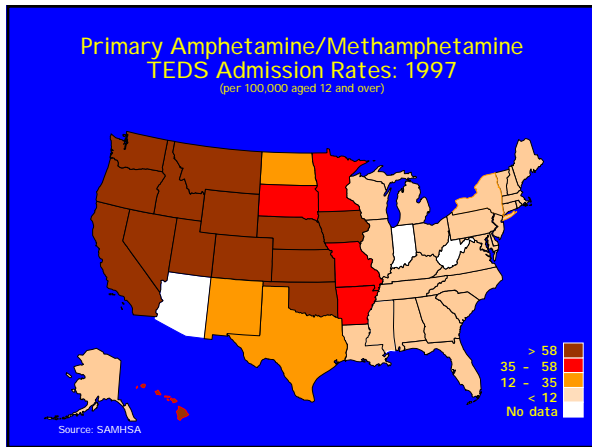


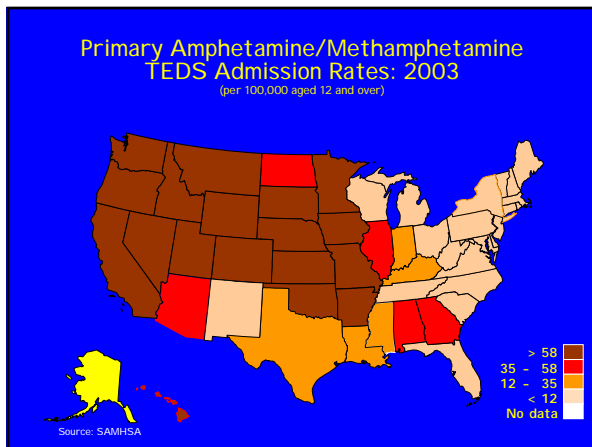


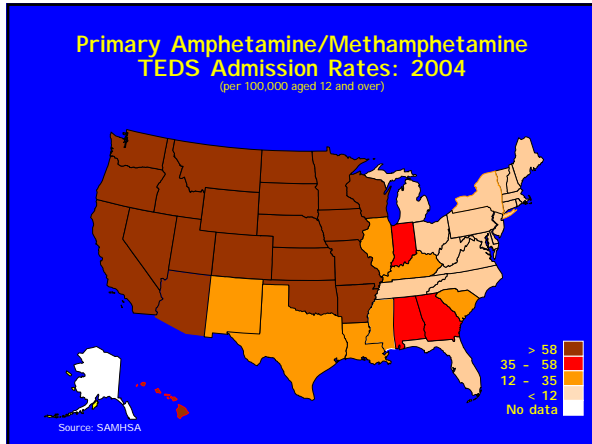














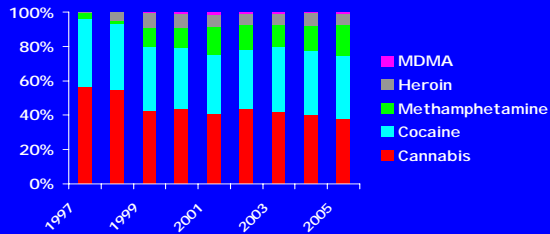
Areas to Watch

- **Use of meth on the job (Work Force needs)**
 - Truckers, day laborers, people working long hours and boring jobs.
- **Risky sexual behaviors**
 - Heterosexuals & homosexuals.
 - Party people
 - Immigrants/migrants away from home and families.
- **Increasing criminal distribution**
 - Traffickers following the migrant trail.
 - More organized and criminal gangs.

Club Drugs

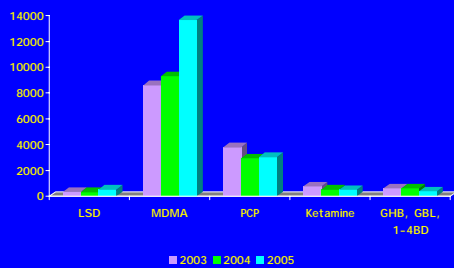
- Problems identified early: MDMA in 1985, GHB in 1990, Ketamine in 1991, Rohypnol in 1993, but slow responses.
- Research studies underway but are incomplete and can be problematic.
- Use of Internet to obtain information from pro & anti-drug sites (**BUT** information can be erroneous, untested, outdated, or extreme). And trends move around the world through the Internet.
- Problems testing & identifying various drugs.
- Lack of detox & treatment protocols.
- Misperception that all club drugs are alike.

Substances Identified by Labs Participating in the National Forensic Laboratory Identification System: 1997-2005

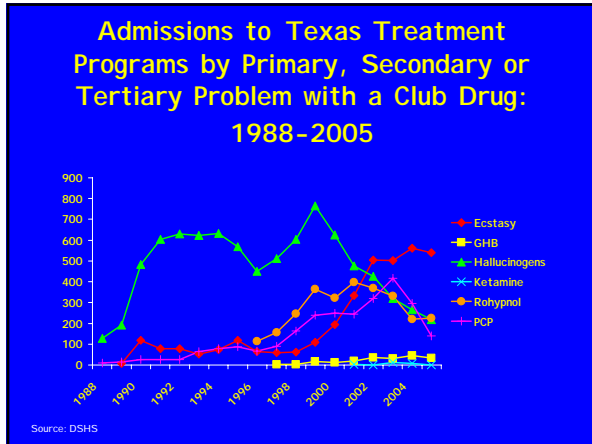


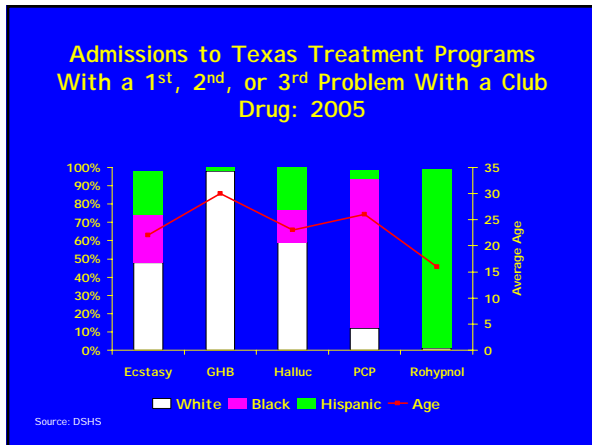
Source: NFLIS

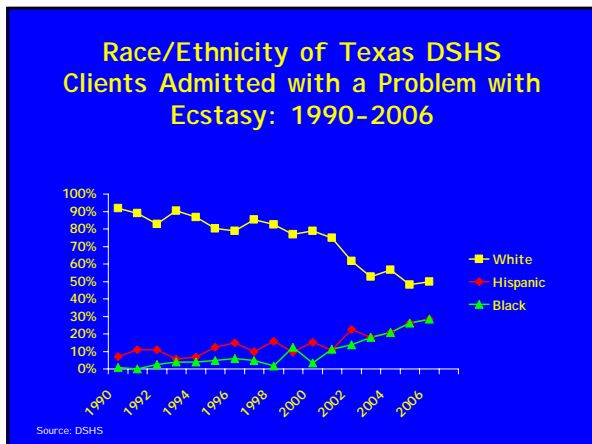
Party Drugs Identified by U.S. Toxicology Labs: 2003-2005



Source: NFLIS







LSD and Mushrooms

- LSD low dose and more prevalent than we think?
- Mushrooms are more popular than LSD? Need to start watching for them.

GHB, GBL, 1-4BD

"Fantasy"



SPECIAL ADVISORY FROM MARIJUANA
(updated 12-11-01)
AMPHETAMINE
PRECAUTIONS AND DIRECTIONS

"JLF sells **poisonous-non-consumable** items, consisting of various raw materials and related merchandise used for art, hobby, science, industry, and/or religion. Products include Amanita muscaria ("Fly Agaric") mushrooms, Claviceps purpurea ("Ergot Fungus") sclerotia, Trichocereus pachanoi ("San Pedro") cactus, **Psilocybin mushroom spores and kits**, Papaver somniferum ("**Opium Poppy**") pods, Argyleia nervosa ("Hawaiian Baby Woodrose") seeds, Anadenanthera colubrina ("Cohoba") seeds, and many other ethnobotanicals. Also pure compounds such as yohimbine, L-tryptophan, etc."

JLF Poisonous Non-Consumables
P.O. Box 184
Elizabethtown, IN 47232

DISSOCIATIVE DRUGS: PCP, Ketamine, DXM

Distort perceptions of sight and sound and produce feelings of detachment, but not hallucinations (Zombie effect)



Phencyclidine

- PCP, Angel Dust, Killer Weed
- Dissolved in embalming fluid or ether ("Fry," "Amp," "Water, Water").
- Swallowed, sniffed, smoked on joints dipped in "Fry".
- Menthol cigarettes are dipped into liquid PCP or blunts are laced with powdered PCP.

NDARC Study of Ketamine Users*

- N=100; well-educated; older group of party drug users.
- Some had access because in medical field.
- Used with MDMA, MDA & amphetamines.
- Many had regular negative side effects such as inability to speak, blurred vision, lack of coordination.
- Issue for warnings: Usually unpleasant side effects seen by some as "positive" and encouraged experimentation.

*Dillen, Copeland, Jansen, Patterns of Use and Harms Associated with Non-Medical Ketamine Use, *Drug and Alcohol Dependence* 69 (2003) 23-28.

What is **DxM**? **Dextromethorphan** is a psychoactive drug found in common over the counter cough medicines.



Source: [www.http://third-plateau.lycaeum.org/beginner/index.html](http://third-plateau.lycaeum.org/beginner/index.html)

DXM

- "Robotrip" - high dosages can produce hallucinogenic effects
- Part of family of psychoactive compounds called "dissociative anesthetics."
- Some effects have been described as similar to those of ketamine (Special K) and PCP.
- The DXM experience is described as occurring on levels, or plateaus depending on the amount of the dose taken.
- Each plateau is different from another. There are 4 major plateaus + a fifth one that is generally unpleasant and involves a possible trip to the hospital

Source: [www.http://third-plateau.lycaum.org/beginner/index.html](http://third-plateau.lycaum.org/beginner/index.html)

DXM Calculator

DXM Dosage Calculator

Enter your weight in pounds:

Cough Syrup Powder Strength: mg/mL

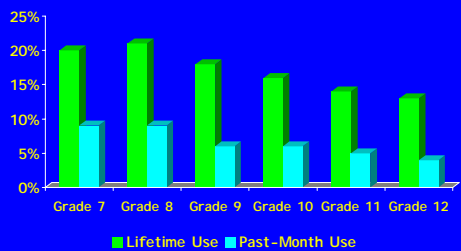
You must drink between 85mL and 250mL of cough syrup to achieve your desired high!

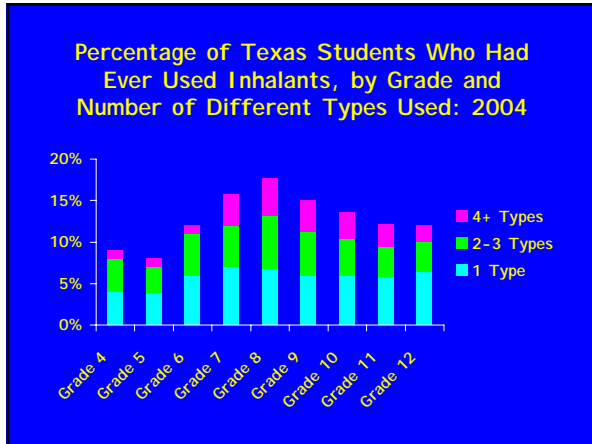
Carisoprodol

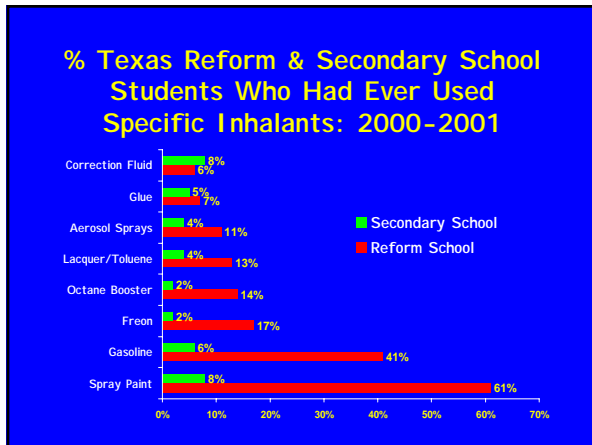
- "Ds", "Dance," Las Vegas Cocktail (with hydrocodone), "Soma Coma" (with codeine).
- Reported as problem by CEWG members in Washington, South Florida, and Texas.
- Texas PCC abuse calls from 1998 to 2003—39% involved only carisoprodol. More likely males, adolescents, happened at other residences, schools, public areas; serious medical outcomes
- 2004 Texas deaths with mention of carisoprodol: 60% male, 93% white, av. age 41. Only 3 of 87 were just carisoprodol; the rest also involved other substances, especially hydrocodone and alprazolam.

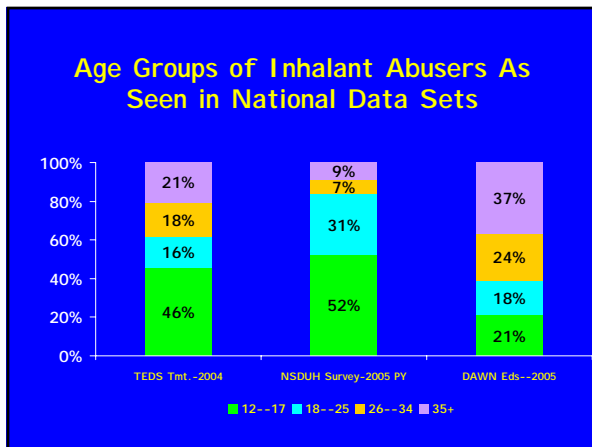
Inhalants

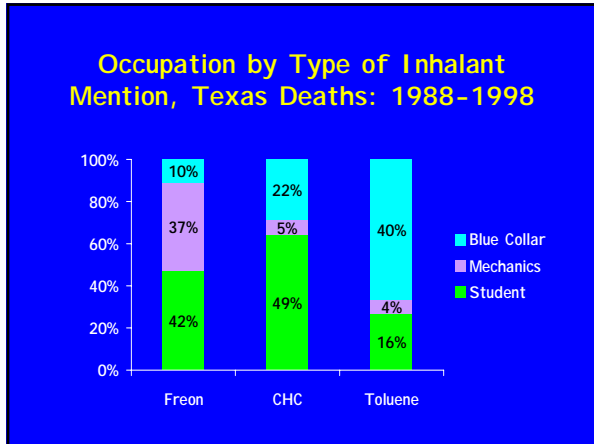
% Texas Secondary Students Who Had Used Inhalants Ever or in the Past Month, by Grade: 2004

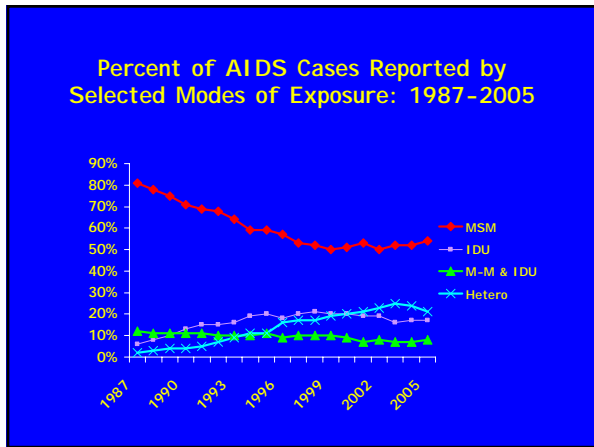


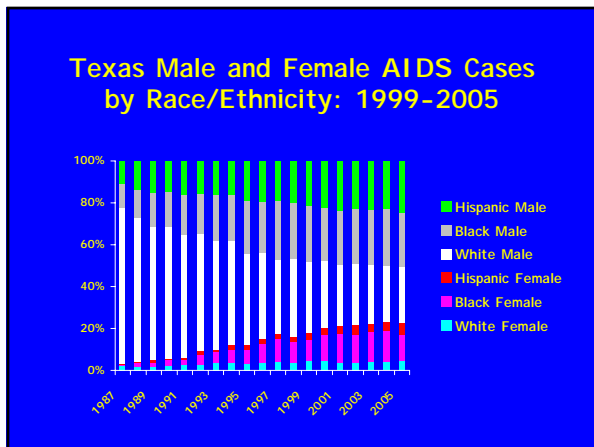




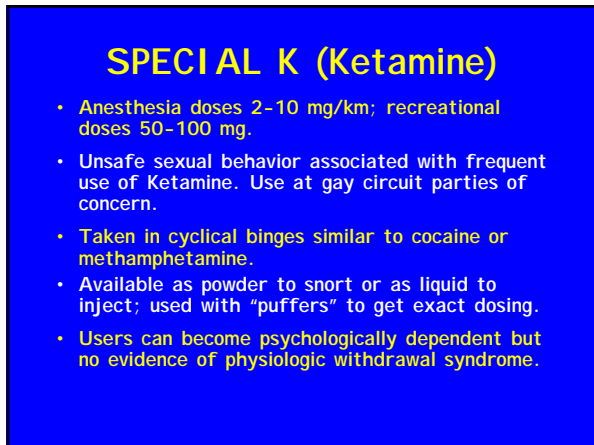


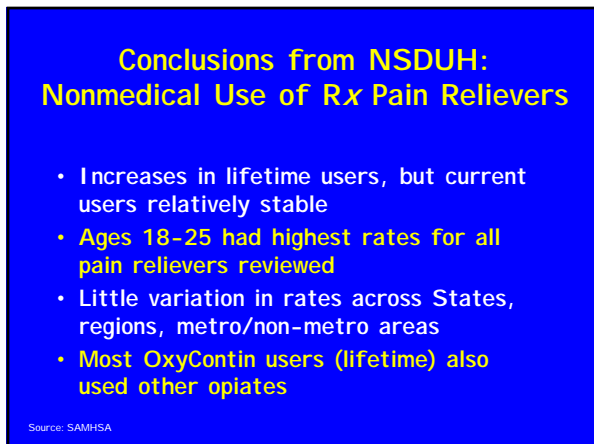












**Conclusions from DAWN:
Nonmedical Use of Opioid Pain
Relievers**

- ED visits in 2004 > 150,000 (131k-185k)
 - Oxycodone, hydrocodone, methadone > fentanyl, morphine, propoxyphene
 - Polydrug use is typical
 - About half of oxycodone products are SR type
- Patients aged 21-54 had highest visit rates
- Rates vary across metro areas examined
- Majority of patients treated and released

Source: SAMHSA
