Drug Trends Update
“Old Drugs”

Jane Maxwell, Ph.D.
Center for Social Work Research
The University of Texas at Austin
Percentage of Texas Seniors Who Had Driven While Drunk or High from Drugs: 1990–2012

Driving While Drunk

8% drove 1+ times after drinking and 1+ times high on drugs

Source: DSHS
% of Weekend Nighttime Drivers with BACs>0.08g/dL or Positive for Drugs in the 2007 National Roadside Survey

More drivers, particularly night-time drivers are positive for drugs than drivers over legal BAC

NHTSA Traffic Safety Facts, 2009
Alcohol Energy Drinks (AmED) Emergency Room Reports

- Emergency Room visits due to AmED doubled between 2007 and 2011. More males than females; more patients ages 18-39 but largest increase was among those 40 and older.

- 58% involved only AmED; 42% also involved other drugs, including CNS stimulants (Adderall), alcohol, illicit drugs (marijuana).

- Those mixing alcohol & AmEd were 3x more likely to leave bar highly intoxicated and 4X more likely to drive drunk.
Drugs Most Commonly Identified by U.S. Tox Labs Reporting to NFLIS: 2003 vs. 2008 vs. 2013
Percentage of Drug Items Identified as Heroin by Tox Labs: NFLIS 2010
Percentage of Drug Items Identified as Cocaine by Tox Labs: NFLIS 2010

Map showing the percentage of drug items identified as cocaine across different states, with varying shades indicating different percentage ranges: <5%, 5-9%, 11-15%, 16-19%, 20-29%, and 30-44%.
Percentage of Drug Items Identified as Methamphetamine by Tox Labs: NFLIS 2010
Primary Drug of Abuse at Admission to Treatment: 2012

SSA, DGE. SISVEA 2012. TEDS
Heroin
Mexican Black Tar Heroin

Mexican Brown Heroin

South American Heroin
Average Purity of Heroin Samples in the US: 2003-2012

DEA's Heroin Domestic Monitor Program
Heroin

- Almost all heroin in the U.S. is from Mexico or South America. East of the Mississippi, white S. American heroin and in the West, Mexican Black Tar, but seeing Tar move eastward into the South, while S. American now seen in Chicago and St Louis. Mexican cartels, as well as S. American cartels, are now trafficking S. American heroin.
- Fentanyl being added to white heroin to increase its potency.
- June 2014 CEWG meeting—all correspondents reported heroin indicators increasing, and especially in suburban areas and among young users.
- Role of Naloxone and NEED FOR MEDICATION-ASSISTED THERAPY FOR YOUNG USERS.
Indicators of Heroin Trends in Texas: 1998-2013
Texas Heroin and Other Opiate Admissions by Age Group: 2005-2013

Source: DSHS
Average Age of Persons Dying with Mention of Heroin in Texas: 1992-2013

Source: DSHS
Other Opiates

• Shifting back and forth between Rx opiates and heroin. Studies show more go from pills to heroin.

• Problem with pain pill mills. Houston Cocktail “Holy Trinity”: oxycodone, soma, alprazolam (Xanax).

• Evidence in Florida of decreasing problems due to Prescription Monitoring Programs.

• Grams of hydrocodone and oxycodone/100K distributed in the U.S. decreased from 2012 to 2013.

• Reports of difficulty in using “hardened” extended release versions.

• Cost difference? In Texas, heroin cap is $10-$20 vs. $1/mg for 72 mg OxyContin.
Human Exposure Cases Reported by Poison Centers in the US: AAPCC 2004-2012

- Hydrocodone
- Oxycodone
- Cocaine
- Methadone
- Heroin
Vicodin/Norco (Hydrocodone/Acetaminophen)
Street Names: Vikes, Viko, Hydro, Norco, Tab
Pharmacy’s Cost = $0.10/tablet
Street Value = $5 - $8/tablet
Soma (Carisoprodol 350 mg)
Street Names: Stoned On/Off My Ass, Dance
Pharmacy’s Cost = $0.75/tablet
Street Value = $3 - $5/tablet
Xanax 2 mg (Alprazolam)
Street Names: Candy, Downers, Tranks, Bars
Pharmacy’s Cost = 0.80/tablet
Street Value = $4 - $7/tablet
<table>
<thead>
<tr>
<th>Medicine</th>
<th>#60</th>
<th>#90</th>
<th>#120</th>
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<td>LorCet 10/650</td>
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<tr>
<td>Lortab 10/500</td>
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<tr>
<td>Vicodin ES 7.5/750</td>
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<td>Vicodin HP 10/660</td>
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<tr>
<td>Norco 10/325</td>
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<tr>
<td>Soma 350 MG</td>
<td>#60</td>
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<tr>
<td>Flexeril 10/5 MG</td>
<td></td>
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<tr>
<td>Motrin 800 MG</td>
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<tr>
<td>Suboxone 2/8 MG</td>
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<tr>
<td>Alprazolam 2/1/0.5/0.25MG</td>
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<tr>
<td>Diazepam 10/5/2.5 MG</td>
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<tr>
<td>Lorazepam 2/1/0.5/0.25MG</td>
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Pill Mill Pharmacy Shelves
Overdoses: Opioids, Alcohol

- Difficulty breathing or decreased or irregular breathing.
- Listen for gurgling sound
- Turns pale or bluish hue—fingertips, mouth
- Can’t follow directions, unconscious, doesn’t respond to pinch
- Place on side- danger of inhaling vomit
- Don’t leave to sleep it off—call 911 immediately
- Overdose reversal kit—Naloxone-Narcan—need prescription. More than one dose may be needed.
- Texas has good Samaritan law for alcohol if minor calls for EMS and stays on scene until help arrives. No similar provision for drug overdose.
Risk Factors for Opioid Overdose

• Taking opioids at high doses (equal to 20 mg of morphine or more per day).
• Having a doctor change an opioid dosage or switch you to a different opioid.
• Having problems with your lungs, such as COPD (chronic obstructive pulmonary disease), sleep apnea, and/or asthma.
• Taking medications or substances that interact with an opioid, including alcohol, some sleeping aids, and anxiety medications.
• Taking certain medications for depression.
Pharmacologic Treatments for Opiate and Alcohol Dependence

FDA approved for Alcohol
- Naltrexone (Revia©) 1 pill per day-reduces craving--genetics
- Depo-Naltrexone (Vivitrol©)-injected every 30 days.
- Acamprosate (Campral©) pills 3x/day
- Topiramate (2 oral doses per day)
- Disulfiram (Antabuse©) 1 pill/day.

FDA approved for Opiates
- Buprenorphine-daily pill or film
  - Duo (Suboxone© is buprenorphine & naloxone partial agonist-causes withdrawal if use opioids)
  - Mono (buprenorphine--Subutex©)
- Methadone-daily oral dose
- Naltrexone (Revia©) 1 pill per day
- Depo-Naltrexone (Vivitrol©)-injected every 30 days.
“SYRUP” in Texas

- Codeine cough syrup continues to be abused.
- Cut with Karo syrup, jolly ranchers, and soft drink.
- Rap music on syrup continues to drive this phenomenon.
- Prepackaged to introduce to youths
- One manufacturer has withdrawn their product from the market.
New “Relaxation” Drinks: Drank and *Lean*

- Valerian Roots
- Melatonin
- Rose Hips
- “Slow Your Roll”
- “Slow Motion Potion”

Google for Cannabist

And now grape syzurp with a cannabidiol instead of codeine

And Justin Bieber

Lil’Wayne
Cocaine Indicators in Texas: 1998-2013

# PCC Calls  % Treatment  % Tox Items  # Deaths
Cocaine: Why the Decline?

- Poison control, treatment, deaths, & tox lab indicators down in Texas; price up.
- Amount of coca under cultivation in South America is down 15% and demand in Europe for cocaine.
- Use of Levamisole as a filler with serious medical consequences.
- Users in Austin report it is so weak “not worth paying for” and mixing coke with synthetic cathinones like “Spice” to increase effect.
- In 2012, DEA reports price per pure gram increased from $98 to $255 while purity decreased from 67% to 44%.
- But proportion of cocaine items seen at tox labs on the Texas border in 2013 is up. Return of cocaine?
New Problems with Cocaine

- Levamisole is cancer medication also used in de-worming animals.
- Can result in agranulocytosis (discoloration of skin, beginning in ears—sign of skin cell death)
- Results in neutropenia (bone marrow does not make enough white blood cells)
Marijuana

• Supply changes. More hydroponic & indoor grows in Texas. Fewer number of cannabis items seen at Texas border in 2013 (more cocaine seen in 2013).
• Increased proportion of treatment admissions (23%) and more impaired.
• What will happen with medical marijuana and legalization?
• Google for Cannabist
Monitoring the Future Survey: 1991-2013: Marijuana Use by 12th Graders

- % Used in Past Year
- % Great Risk in Using Regularly
- % Strongly Disapprove of Use
- % Easy or Very Easy to Get
Blunts
% Texas Secondary Students Who Had Used Marijuana in the Past Month, by Ethnicity: 1990-2012

Source: DSHS
Rolling Papers and Cones
Vapor Pens

- Advertised for “patients”
- Cost $100-$200
- Potency varies
- Higher percentage of THC
- No odor. Similar to electric cigarettes
- Pen-style vaporizers contain 100-150 hits
- Some can be recharged & refilled
- http://potappetit.com/the-pen-is-mightier-than-the-bong-or-mini-vaporizers-got-the-right-stuff/
Dabs, BHO, Honey, Budder

• Dabs, shatter wax and vaporizer pens contain hash oil ("wax"). Supposedly 80%-90% THC. Different methods on the web.

• Butane Honey Oil or Butane Hash Oil is a golden resin created by placing dried and ground marijuana into a special pvc filter. Butane gas is shot in through one end of the filter while the other end is placed in a bowl full of water. The filter spews out the fresh oil in to the cold water where it sinks to the bottom. The bottom is scraped and the oil is ready to use.

• Touch the heated knife point or the pin to the Budder on the end of a pin and inhale fumes (and sit down).
Wax, Budder, Shatter
Marijuana in Colorado

- Medical use legal since 2000. 2,000 on registry 2001-2008. In 2013, 111,000 patients with valid registry ID and 248,000 additional patient applications.
- In 3 months, Colorado has earned $12.6 million in taxes and fees.
- 148 retail stores, 520 medical marijuana centers and 751 Optimal Premises Cultivation Licenses,
- Fewer treatment admissions (fewer cj referrals); fewer pot arrests, fewer marijuana positives in fatal crashes, but increases in hospital discharge rates & calls to poison center.
- Study has found retail demand is from out-of-state residents and users who previously purchased on black market.
- Need to regulate/label potency and label candy & cookies that contain THC.
Consequences of Marijuana Abuse

Acute (present during intoxication)
- Impairs short-term memory
- Impairs attention, judgment, and other cognitive functions
- Impairs coordination and balance
- Increases heart rate
- Psychotic episodes

Persistent (lasting longer than intoxication, but may not be permanent)
- Impairs memory and learning skills
- Sleep impairment
Long-Term Cumulative Effects of Chronic Abuse

- Can lead to addiction
- Increases risk of chronic cough, bronchitis
- Increases risk of schizophrenia in vulnerable individuals
- Age of onset of cannabis use directly associated with age at onset of psychosis and age of first hospitalization.
- May increase risk of anxiety, depression, and amotivational syndrome
- New finding suggesting neurotoxic effect of cannabis on the adolescent brain and cessation did not fully restore functioning.

Meier; Caspi, Ambler et al., Persistent cannabis users show neuropsychological decline from childhood to midlife. Proceedings of the National Academy of Sciences, published ahead of print, August 27, 2012.
A Few Other Substances to Throw in the Mix...

- Ketamine - dissociative anesthetic that distorts perceptions of sight and sound, and can produce feelings of detachment.
- Kratom – opioid-like effects
- Krokodil – cheap heroin replacement
- Salvia divinorum – hallucinogenic effects
- Methoxetamine – “legal ketamine”
- Benzo Fury (5-APB) – stimulant and hallucinogenic effects
- GHB - sexual assault
- LSD
- Rohypnol - along the Texas-Mexico border.

Synthetic Drugs

- Not really “Spice,” “Bath Salts,” “Incense,” or “Plant Food”
- Chemically-based; not plant derived
- Complex chemistry
- Constantly changing to “stay legal”
Will They Turn You into a Zombie?  
What Clinicians Need to Know about Synthetic Drugs (2nd Edition)

Cannabis vs. Cannabinoids: Clinical Cases

Most symptoms are similar to cannabis intoxication

- Tachycardia
- Reddened eyes
- Anxiousness
- Mild sedation
- Hallucinations, acute psychosis
- Memory deficits

Symptoms not typically seen after cannabis intoxication

- Seizures
- Hypokalemia (low potassium)
- Hypertension (high blood pressure)
- Nausea/vomiting
- Coma
- Agitation, violent behavior

Schneir 2012 J Med Tox
Rosenbaum et al. 2012 J Med Chem
Forrester et al. 2011 J Add Dis
Hermanns-Clausen et al. 2012 Addiction
Synthetic Cathinones: Bath Salts

• Mimics the effects of the Khat Plant.
• Could be 4-MMC, mephedrone, or over 37 other varieties.
• Sold on-line with little info on ingredients, dosage, etc.
• Advertised as Legal Highs, Legal Meth, Cocaine, or Ecstasy.
• Taken orally or by inhaling; injectors report abscesses and pain.
• Serious side-effects include tachycardia, hypertension, confusion or psychosis, nausea, convulsions.*
• Labeled “not for human consumption” to get around laws prohibiting sales or possession.
• Austin outreach workers report bath salt use declined quickly among injecting drug users

*Wood & Dargan, Novel Psychoactive Substances: How to Understand the Acute Toxicity Associated with the use of these substances, Therapeutic Drug Monitoring, 34: 363-367, 2012.
Calls to Texas & US Poison Control Centers: 2010-1/2 2014

Texas

- Tx Syn Cannabinoids
- Tx Syn Cathinones

U.S.

SOURCE: AAPCC and DSHS
Attitudes That Use of Synthetic Cannabis Once or Twice was Harmful by Age Group and Prevalence of Use: Monitoring the Future 2012-2013

Decreased Use by 18 Year Olds Between 2012 and 2013

![Bar chart showing decreased use of synthetic cannabis by 18 year olds between 2012 and 2013.](chart.png)
### Comparison of Texas Poison Control and Treatment Cases: 2012-2014

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<tbody>
<tr>
<td>% Male</td>
<td>71%</td>
<td>74%</td>
<td>74%</td>
</tr>
<tr>
<td>Average Age</td>
<td>23</td>
<td>23</td>
<td>29</td>
</tr>
<tr>
<td>Intended to Abuse</td>
<td>88%</td>
<td></td>
<td>88%</td>
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<tr>
<td>Moderate Effect (returns to pre-exposure state)</td>
<td>42%</td>
<td>47%</td>
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</tr>
<tr>
<td>Major Effect (life threatening)</td>
<td>6%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Deaths</td>
<td>4</td>
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<tr>
<td># Exposures</td>
<td>2135</td>
<td>412</td>
<td>583</td>
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</table>

**SOURCE:** Texas DSHS
Characteristics of Synthetic Cannabis Users in Texas Drug Treatment

• 412 admitted to publicly-funded treatment in Texas in 2013.
• Average age 23; had been using the drug 2.5 years prior to treatment admission.
• 75% male; 52% white, 38% Hispanic, 6% black.
• Only 38% had no legal problem.
• 33% lived with family; 6% homeless.
• 8% employed full time; 45% unemployed.

SOURCE: Texas DSHS
Synthetic Cannabis Items Identified and Reported to NFLIS: 2010-1/2 2014

- 2010: 3,285 seizures, 18 subst.
- 2011: 22,957 seizures, 32 subst.
- 2012: 42,709 seizures, 46 subst.
- 2013: 33,239 seizures, 47 subst.
From the term “Bath Salts” to...

**Synthetic Cathinones**
- Mephedrone, methylone, 4-MEC, MDPV, Alpha-PVP
- Stimulants related to methcathinone, MDMA, amphetamines

**2C Phenethylamine**
- Created to imitate MDMA
- Psychedelics related to mescaline
- MDA, MDEA, 6-APB, DOM, DOB,

**Tryptamines**
- 5-MeO-DMT & 4-AcO-DMT
- Psychedelics related to psilocin & bufotenin

**Piperazines**
- BZP & TFMPP
- Stimulants (fake ecstasy)
- MeOPP

And Dissociatives related to ketamine and PCP and Opioids with varying potencies of morphine: 80%, 5.4x potency, 10,000 times potency.
Synthetic Cathinone Items Identified and Reported to NFLIS: 2000-1/2 2014

2010: 729 seizures, 10 subst.
2011: 6,766 seizures, 21 subst.
2012: 14,604 seizures, 31 subst.
2013: 15,284 seizures, 26 subst.

Source: US NFLIS.
**Psychedelics**

- **5'-substituted tryptamines**
  - Related to: bufotenin
  - 5-MeO-DMT, 5-MeO-DALT, 5-MeO-NPT, 5-MeO-MET, 5-MeO-DIPT, 5-MeO-DPT, 5-MeO-AMT, 5-MeO-AET

- **NBOMe series**
  - Related to: 2C-x series
  - 25C-NBOMe, 25I-NBOMe, 25F-NBOMe

- **Ergolines**
  - Related to: LSD, LSA
  - LA-52, LA-SS-Az (LSZ), PRO-LAD, ETH-LAD

- **4'-substituted tryptamines**
  - Related to: psilocin
  - 4-AcO-DNT, 4-HO-DPT, 4-AcO-DET, 4-HO-DALT, 4-HO-MPT, 4-HO-DIPT, 4-MES-DMT

- **Psychedelic amphetamines**
  - Related to: 2C-x, amphetamine
  - DB2, DOM, DOC, DOET, DOI, TMA-2, Bromo-dragonFLY

**Stimulants**

- **Cathinones**
  - Related to: methcathinone, cathinone, amphetamine, MDMA
  - Mephedrone, Pentedrone, Methylene, Phedrone, Butylone, bk-PiMA, Benzodrene, 4-TEC

- **Piperazines**
  - Related to: piperazine
  - BZP, mCPP, MBZP, pFPP, DBZP, MeOPP, MMBZP, TFMP

- **Phenylalkylpyrrolidines**
  - Related to: Pyrovalerone, Prolintane
  - NDFV, a-PPP, a-PVP, NDFV/P, a-PBP, MDFV/P
  - Methiopropamine, Ethylenediamate

- **Substituted amphetamines**
  - Related to: amphetamine, methamphetamine
  - 4-FA, 3-FA, MFA, PMA, 3-FA, PMMA

**Cannabinoids**

- Functionally related to naturally occurring cannabinoids including THC

- **Naphthoylindoles**
  - JWH-018, JWH-019, JWH-021, JWH-022, JWH-020
  - AM-1221, AM-2201

- **Phenylacylindoles**
  - CP-47,497, CP-47,497, C8 homologue, CP-55,940

- **Cyclopropanoylindoles**
  - UR-144, SF-UR-144, A-934,735, A-796,260

- **Naphthoxypyryroles**
  - JWH-307, JWH-175

**Dissociatives**

- Related to: ketamine, PCP

- **Methoxetamine**
  - 3-MeO-PCP, 4-MeO-PCP, 3-MeO-PE, 2-MeO-ketamine

**Sedatives**

- **Opioids**
  - Related to: morphine, fentanyl, heroin
  - a-methylfentanyl, 7-acetoxyxymetramine
  - Metonitazene, AH-7921

- **Phenazepam**
2C Phenethylamines

- Phenethylamines (stimulant and hallucinogenic effects—Bees, Nexus, etc.). Almost all of the 2C phenethylamines are produced in Asia, but some small labs in the US are capable of producing 2C (usually 2C-B).

2C-C-NBOMe, 2C-I-NBOMe, Mescaline-NBOMe

- Analogs of the 2C-X family of phenethylamines
- Strongly active at the sub-milligram dose (a Super Potent drug)
- Most 25I and 25C is sold as pure powder, liquid, or blotter.
- Risk of confusing one white powder for another or simply misunderstanding the difference between one psychedelic or stimulant drug and another
- Obtained from China.
- NFLIS Labs nationwide identified 10 reports of 2-C-Nbome variations in 2011, 480 in 2012, and 1563 in 2013.
- Weighing and handling pure high-potency chemicals such as 25I-NBOMe should be performed wearing eye protection, gloves, and a filter mask (at a minimum).

Tryptamines

- Related to psilocin, and they have hallucinogenic effects
- They are naturally occurring (toad, shamantic brews)
- They are smoked: almost immediate effects, very intense, short effect (<30 min)
- 5’-substitute tryptamines related to bufotenin, 5-Meo-DMT, etc.
- 4’-substitute tryptamines related to psilocin mushrooms 4-HO-DALT, etc.
Piperazines

- Frenzy, Bliss, Charge, Herbal ecstasy, A2, Legal Z, Legal E.
- Mainly available over internet and sold as ecstasy pills that are “safe.”
- Two classes: (1) benzylpiperazaines (BZP) and (2) phenylpiperazaines (TFMPP).
- Mimics effects of ecstasy (MDMA); dangerous with seizure disorders, psychiatric illness, or coronary disease.
- Adverse events included hypertension, reduced consciousness, psychotic episode, hallucinations, tachycardia, hyperthermia, coma. Could be toxic if combined with MDMA or amphetamines.

Glimpses of MDMA Situation in U.S.: 1999-2013

Results of Pill Tests Containing MDMA*

- Any MDMA
- MDMA Only

Mephedrone and methylone act on the brain like MDMA

MDMA Items Identified in DEA’s NFLIS Tox Labs: 2004-2013

- MDMA
- Synthetic cathinones

Baumann, M.H., et al. The designer methcathinone analogs, mephedrone and methylone, are substrates for monoamine transporters in brain tissue. *Neuron-psych*

*http://www.ecstasydata.org/stats_substance_by_year.php
New MDMA Warning
Watch out for Molly!

• “Molly” initially referred to ecstasy pills with high quality MDMA powder. With MDAM shortage, now have more caffeine, meth, & methylone with little MDMA in them.

• European Monitoring Centre for Drugs and Drug Addiction issued warning in February 2014 that “dangerously high” levels of MDMA are appearing in Europe.

• MDMA tablets in the EU in 2012 contained 60 – 100 mg of MDMA, but tablets containing 150 and 200 mg of MDMA are currently available and can contain even higher amounts, e.g. 240 mg.
Changes in Psychoactive Substances Identified in Forensic Laboratories in US: 2004-2013

Changes in Psychoactive Substances Identified in Forensic Laboratories in US: 2004-2013

New Issues?

• Need better way to disseminate information on harms of new drugs. Adults know very little about them. How can parents talk to their kids when they have no idea what they are talking about?

• Phenethylamines. Need better categorization of these drugs, particularly those with amphetamines such as DOM, DOB, etc.

• Need information on the new and “more potent” generation of cannabinoids and opioids.
METHAMPHETAMINE
Different Manufacturing Processes

I. Ephedrine/Pseudoephedrine Based (d-form): (1% of samples tested)
   A. “Nazi Method”-lithium, anhydrous ammonia
   B. Cold method-red phosphorus, iodine crystals
   C. “One Pot” and “Shake and Bake” cooking using dry ammonia nitrite and cough syrup rather than liquid anhydrous ammonia.

II. P2P/Phenylacetone (Illegal in US-Schedule II, precursors legal in Mexico) (l and d,l-forms): (95% of samples tested).

   If drug is 100% potent, it’s all d-form. If 0% potent, is all l-form. Mexican chemists are refining their process to produce more potent P2P meth.

Production Routes
- P2P
- Pseudoephedrine

Purity and Potency
- Purity
- Potency

Source: DEA
Methamphetamine

• Indicators are now equal to or at higher levels than before the ban on pseudoephedrine. Proportion of NFLIS items that were meth rose from 19% in 2012 to 24% in 2013 in Texas. Only cannabis more frequently identified in Texas in 2013.

• Purity & potency across US remain at 95-96% which means the cooks have figured out how to get rid of the l-isomer.

• Areas which had traditionally been dominated by heroin now reporting increasing problems with meth and new users becoming psychotic in short period of time due to potency.

• More crystal meth use among young MSM and high-risk heterosexual populations.

• STDs being spread by use of GRINDR© and Craig’s List© but outreach workers also using these apps to locate their cases.

• Meth can be brought in from Mexico as powder dissolved in water and converted to crystal in the US.
Indicators of Methamphetamine Trends in Texas: 1998-2013
A Few Other Substances to Throw in the Mix…

• Ketamine - dissociative anesthetic that distorts perceptions of sight and sound, and can produce feelings of detachment.
• Kratom – opioid-like effects
• Krokodil – cheap heroin replacement
• Salvia divinorum – hallucinogenic effects
• Methoxetamine – “legal ketamine”
• Benzo Fury (5-APB) – stimulant and hallucinogenic effects
• GHB - sexual assault with it.
• LSD
• Rohypnol - along the Texas-Mexico border.

Phencyclididine

• PCP, Angel Dust, Killer Weed
• Dissolved in embalming fluid ("Fry," "Amp," "Water, Water").
• Swallowed, sniffed, smoked on joints dipped in "Fry".
• Out-of-body strength.
• Dissociative drug like DXM and ketamine; effects are similar to cathinones.
What is **DxM**? Dextromethorphan is a psychoactive drug found in common over the counter cough medicines.

Dextromethorphan (DXM)

• At high doses, may produce dissociative hallucinations (distance from reality, visual effects with eyes open and closed; perceptual changes, drug liking, mystical-type experiences similar to use of psilocybin.*

• Can produce tachycardia, hypertension, agitation, ataxia, and psychosis at high doses.

• Dose-dependent use pattern to try to gauge the amount they need to take to produce the desired effect, which is one of 5 plateaus.


Source: DSHS
Enter your weight in pounds: 150

Second Plateau

Strength: 2 mg/mL

You must drink between 85mL and 256mL of cough syrup to achieve your desired high!
Krokodil

• Russian cheap replacement drug for heroin made from cooking down desomorphine with gasoline, paint thinner, alcohol, iodine, red phosphorous (match heads), etc.
• In Russia, lack of clean needles, methadone, poverty, high numbers of HIV+ individuals, etc.
• Injuries due to bacteria, toxic adulterants, gangrene, staph, streptococclis, infection
• No verified cases in the US since 2004—most were just serious wound infections reported by people who had never seen such injuries.
NEEDLES & RISKS

• Role of needles in transmission of HIV/AIDS, HCV, STD—not just heroin. Focus on dangers of dirty needles for abscesses, MRSA, streptococcus (and skin infections that could be publicized as Krokodil) as well as transmission of HIV/AIDS.

• Increase focus on non-injected party drugs/meth and social networking for increased risky anonymous sex. (And counter the assumption that HIV is easy to treat, so condoms not needed).
Hepatitis C

- HCV is the leading cause of liver failure and liver transplantation in the U.S. Up to 70% of injectors test positive for HCV.
- Many injectors are unaware of their HCV status and do not know about treatment options. All IDUs or ever IDU need screening.
- Deaths due to AIDS are decreasing but deaths due to liver disease are increasing. Avoid alcohol and Rx and OTC drugs that can potentially damage the liver, such as non-aspirin pain relievers.
- Two new FDA approved drugs: Boceprevir (Victrelis) & Telaprevir (Incivek). Used in combination with either Interferon or Ribavitrn.
- Everyone working in this field should have HBV vaccination.
- **DO WE TEACH OUR CLIENTS WHO ARE HCV+ HOW TO AVOID INFECTING OTHERS?** Risk for sex partners, sharing personal items that might have blood on them and cover cuts and sores on skin. Use same precautions for HIV.

*Larney at al., The contributions of viral hepatitis and alcohol to liver-related deaths in opioid-dependent people, Drug and Alcohol Dependence 131 (2013) 252-257.*
Percent of Texas AIDS Cases Reported by Selected Modes of Exposure and Injectors Entering Treatment: 1987-2013

Source: DSHS
Texas Male and Female AIDS Cases by Race/Ethnicity: 1999-2013
Jane C. Maxwell, Ph.D.
Senior Research Scientist
Addiction Research Institute
Center for Social Work Research
The University of Texas at Austin
1717 West 6th, Suite 335
Austin, Texas 78703
512 232-0610
http://www.utexas.edu/ssw/cswr/institutes/ari/research/drug-trends/
Or google GCATTC