METHAMPHETAMINE:
*Meth, Rx, and Other Related Stimulants*

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About your Presenter:
Kathi Ackerman, MSW, LGSW, LADC

- Executive Director of Minnesota D.A.R.E. (Drug Abuse Resistance Education), Inc., the nonprofit organization that administers the D.A.R.E. program for the state of Minnesota. She has been in this position for the past 17 years and also works part-time as a Medical Social Worker for Allina Home Health and Hospice.
- BS in Counseling Psychology and completed two Masters at the University of Minnesota in Addiction Studies and Social Work. She is licensed as a Graduate Level Social Worker and as an Alcohol and Drug Counselor. She specializes in Clinical Mental Health, Addiction, Medical Issues, Children and Families, and Grief and Loss.
- Worked in the nonprofit world for over 30 yrs. She was Health Safety and Youth Director of the American Red Cross in Sioux City, IA, the Executive Director of the American Red Cross in Sioux Falls, SD, and Guardian Advocate Coordinator for the 3rd Judicial District of Iowa Supreme Court where she represented severe cases of child abuse and neglect. She performs numerous speaking engagements on a variety of topics locally and nationally.
- Mother of (3) sons. Her oldest son Chris is the Manager of Addiction Services at St. Joseph/HealthEast Hospital in St. Paul, MN; her son Brian is an Aerospace Engineer in Carlingford, Ireland; and her youngest son Aaron is a senior at St. Cloud State University majoring in Criminal Justice. Her significant other, Dr. Les Lofgren, is a Primary Care Physician for HealthPartners. She lives in the Minneapolis area of Minnesota.
Why are we here again??

Rising heroin trends in Minneapolis/St Paul

- 14 percent of admissions to addiction treatment program were heroin in 2013 (40.2% age 18–25).
- Opiate-related deaths rose 57.1% in 2012 to 2013 (from 84–132)
- Statewide, 23 multijurisdictional law enforcement drug task forces seized 203.8% more heroin in 2013 than 2012.

What contributed to this up-swing in heroin/opiate usage??

- Hospital ED visits in Twin Cities nearly tripled from 2004 to 2011 (1,189 to 3,493) those involved Rx narcotic analgesics more that doubled (1,940 to 4,836)
- Hennepin County 132 opiate related deaths in 2013 (84 in 2012). Ages (18–65). At least 57 cases involved heroin (43.2), 14 involved cocaine used in combination w/an opiate (10.6%), 30% involved methadone (22.7%), 15 involved oxycodone (11.3%), 6 involved fentanyl, and 4 the use of methamphetamine in combination with an opiate.
- Primary sources – Mexico and lesser extent South America. Distributed – Mexican drug cartel. Price $20 per dosage.

9/11/2014
Cocaine:
- Cocaine related treatment admissions continued to decline in 2013, accounting for 4.3% of admissions although deaths increased (20 to 37).
- Of these cocaine related treatment admissions, 74.5% were age 35 or older.
- Cocaine was present in 22.6% of the drug items analyzed in 2013, compared to 17.9% in 2012.
- A gram of powder costs $80 to $120 sold by African American street gangs (a rock of crack $15 – $20).

Methamphetamine:
- Meth-related treatment admissions gradually increased in recent years and in 2013 accounted for 10% of total admissions. Rising in the Twin Cities since 2009. Smoking most common route of admin.
- Meth was present in 32.5% of drug items analyzed in 2013 compared with 22.6% in 2013.
- Meth-related deaths increased slightly in 2012–2013, in Hennepin Co. from 14-16 and in Ramsey Co. from 7-8.
- Meth-involved ED visits declined from 2004–2009, increased sharply in 2010 (71.1%), and fell slightly in 2011.
- Mexican drug trafficking organizations control the distribution of meth. It comes from Mexico, California, and Arizona.
- Meth costs $20 per dosage unit.
Dextroamphetamine/Amphetamine (Adderall):

- Used in treatment of attention deficit hyperactivity disorder (ADHD) and narcolepsy.
- Central nervous system stimulant
- Available in two forms, instant release and extended release. Both forms are suitable for the treatment for ADHD, but only the instant release form is approved for use in the treatment of narcolepsy.
- Fourteen million young people between the ages of 20 and 40 take the prescription drug Adderall, or one like it, to treat Attention Deficit Disorder.

Also used as a performance and cognitive enhancer and recreationally as an aphrodisiac and euphoriant.

- Substance addiction is a serious risk of Adderall abuse, but only rarely arises from medical use. Very high doses can result in a psychosis (e.g., delusions and paranoia) which rarely occurs at therapeutic doses even during long-term use. Recreational doses are generally much larger than prescribed therapeutic doses, and carry a far greater risk of serious side effects.

Methylphenidate (Ritalin):

- Rx medication used for ADHD.
- Used non-medically to increase alertness and suppress appetite.
- Crushed and snorted, or ingested orally, each pill sells for up to $5 or simply shared with others at no cost.
- Sometimes known as the "hyper pill" or "the study drug."
- In March 2014, 6.3% of Rx’s report to the MN Rx Monitoring program were for methylphenidate and 10.1% for amphetamines.
- Both drugs are illegal to possess and distribute w/out prescription.
MDMA (3,4-methylenedioxyamphetamine (Ecstasy, X, E))

- Sell for $20 per pill.
- Stimulant and mild hallucinogenic properties.
- Produces feelings of energy and euphoria in users.
- Can heighten body temp. and precipitate feelings of confusion and agitation.

Molly & Synthetics:

- Slang for “molecular.”
- Pure crystalline powder form of the drug MDMA.
- However…sometimes contain methylone (chemical in bath salts).
- 19 MDMA exposures reported to Hennepin Regional Poison Center in both 2012 and 2013.
- Bath salts are sometimes sold under names such as Vanilla Sky, Bliss, and Ivory Bliss.
- The effects are unpredictable and can include agitation, paranoid delusions, and extreme psychosis. Hennepin Co. Regional Poison Center reported 144 bath salt exposures in 2011, 87 in 2012 and 50 in 2013.

- Contain multiple compounds and ingredients.
- Statewide law enforcement task forces seized 1,017,252 grams of synthetic drugs in 2013 compared to 4,648 grams in 2012.
- Synthetic cannabinoids refer to synthetically produced chemicals that are sprayed onto dried herbal mixtures and smoke to mimic the effects of THC. Sold as herbal incense with a warning not for human consumption. They are illegal to sell or possess but sold online under K2, Spice, Stairway to Heaven or California Dreams.
Other Popular Stimulants:

- Mountain Dew
- Coffee Drinks
- Energy Drinks

What do all of these trends tell us?

Tables:

- See handouts.
Methamphetamine...What is it?

- Illegal/Illlicit drug – Illegally manufactured
- Powerful central nervous system stimulant
- Derivative of Ephedrine

**Extremely addictive**

- Slang: Meth, crank, speed, glass, poor man's cocaine, ice, uppers, black beauties, amp, crystal, go-fast, tweak, zoom, fluff, sh**

What does it look like?

- [Image of methamphetamine]
- [Image of methamphetamine packaging]

- [Image of methamphetamine being prepared]
- [Image of methamphetamine in a bag]

- [Image of methamphetamine in a spoon]
- [Image of methamphetamine in a powder form]
Forms:

- Methamphetamine usually comes in the form of a crystalline white **powder** that is odorless, bitter-tasting and dissolves easily in water or alcohol.

- Other colors of powder have been observed, including brown, yellow-gray, orange and even pink. It can also be compressed into pill form.

- It can be **snorted, smoked or injected**.

- Crystal meth comes in clear **chunky crystals** resembling ice and is most commonly smoked.

Methods of use...

- Ingestion
- Injection
- Inhalation (powder, aerosol)
- Smoke
- Absorption

What Does Meth do “FOR” users:

- Provides euphoric feeling
- To look better: Weight loss
- To feel better: Energy, thinking
- To improve sex
- Fun with friends
What does it do TO the user?
- Causes release of high levels of Dopamine
- Use triggers addiction, psychotic behavior and permanent brain damage
- Methamphetamine stays in the body for up to 12 hours. (Believed to remain in fat cells for about six months.)
- Produces energetic (often violent) behavior resulting in confusion, delusions, mood disturbances and paranoia
- Produces wild sleep cycles
- Loss of weight (reason for use with some females)
- Damage to the brain results in symptoms similar to Alzheimer’s disease, stroke and epilepsy.

- Over “amping” on any type of speed is pretty risky. Creates a false sense of energy and push your body faster than it is meant to go.
- Increases the heart rate, blood pressure, and risk of stroke.
- It can kill. An overdose can result in heart failure. Long term physical effects such as liver, kidney, and lung damage (may kill you).

Patterns of Meth Abuse
- Low Intensity Abuse: User’s swallow or snort meth to suppress appetite or to stay awake to work or play.
- Binge Abuse: Bingers smoke or inject meth and experience intense rushes that are psychologically addictive.
- High Intensity Abuse: Addicts use to prevent crashing but experience declining euphoria with each additional smoke or injection.
**Meth Binge Cycle**

- **Tweaking**: Danger, Isolation, Psychosis.
  - End of the binge: User adjusts and prolongs high by taking more drug or other drugs
- **Crash**: Lifeless. Non-threatening.
  - 1–3 days: User sleeps
- **Normal**: Depression.
  - 2–14 days: As addiction increases, normal phase decreases.
- **Withdrawal**:
  - Some symptoms … 30–90 days after last use.

**Long-Term Effects**

- Dependence
- Chronic fatigue
- Addiction psychosis
  - Paranoia
  - Hallucinations
  - Mood disturbances
  - Repetitive motor activity
  - Rages and violent behavior
- Stroke
- Severe weight loss
- Inflammation of pericardium (heart lining)
- Damaged blood vessels
- Tooth and bone loss

(Photo courtesy of NIDA)

**Brain Activity**

- **Normal**
- **Long-term user with brain damage evident (2 years clean)**
- **Methamphetamine user in rehab treatment**
- **Early stages of Parkinson’s disease**

- **Control**
- **Methamphetamine**
- **Methedrine**
- **PD**

- After 4 months of meth
Dangers!

- Extremely addictive
- Causes numerous health problems
  - Heart attacks (all ages)
  - Stroke (all ages)
  - Seizures
  - Psychosis and paranoia
  - Hyperthermia (sometimes lethal)
  - Weight loss
  - Depression
  - Memory impairment
  - Birthing complications
  - Route complications (lung disease, septal necrosis, burst vessels, infection)
- Manufacturing process risks
  - Fire/Explosion
  - Respiratory complications
Exposure to an Unborn Child

- Meth passes through placenta to fetus
  - Elevated fetal B/P – causes prenatal stroke and organ damage
  - Exposed babies shown to have CNS abnormalities, cardiovascular abnormalities, intestinal abnormalities, urogenital abnormalities and malformations of extremities.
  - Exposed newborns often very sleepy for first few weeks after birth (causes weight loss and failure to thrive).
  - Infants shown to have increased risk of SIDS, viral hepatitis and HIV.

Where does it end?

- Chemical Abuse Treatment
- Long-term confinement
- Physical disability
  - Nursing/Assisted living homes
- Persistent psychiatric problems
  - Mental wards/Aftercare facilities
- Hospital ER’s
  - #1 – Trauma: GSW, stab, assaults, accidents, burns, falls
  - #2 – Psychosis, agitation, hallucinations
  - #3 – Seizures, syncope, suicide attempts, skin infections
- Death from violence, accident, overdose
- Suicide (in and out of jail)

Other Dangerous Issues: Manufacturing and Distribution

Meth Labs:
Common Chemicals used to Make Methamphetamine:
- Alcohol (isopropyl or rubbing alcohol)
- Toluene (brake cleaner)
- Ether (engine starter)
- Sulfuric Acid (drain cleaner)
- Red Phosphorus (matches/road flares)
- Salt (table/rock)
- Iodine (teat dip or flakes/crystal)

Lithium (batteries)
- Trichloroethane (gun scrubber)
- MSM (cutting agent)
- Sodium Metal
- Methanol/Alcohol (gasoline additives)
- Muratic Acid
- Anhydrous Ammonia (farm fertilizer)
- Sodium Hydrosylide (lye)
- Pseudoephedrine (cold tablets)
- Ephedrine (cold tablets)
- Acetone, Cat Litter
ONE POT – Shake n Bake

9/11/2014

90% pure meth sells for about $7,000.00 per pound

By the time it gets to the end user, only about 10-12% pure

That original pound, cut numerous times, sold for about $33,000.00

Now We Have meth...now what?
Dangers:

- “One pot can be even more dangerous than “garage labs.” “Garage labs” catch fire, in “One Pot” the cooker is holding the bottle when it fails.
- Environmental dangers
- Second hand dangers
- Smurfing – When several friends of a lab operator shop at multiple stores that sell ephedrine or pseudoephedrine.
- Mexican Meth Labs (Super Labs) – Mexican Drug Trafficking Organizations

What’s Happening in MN:

- 8/27/14 – Bemidji Woman Pleads Not Guilty to Meth Distribution
- 8/21/14 – A Federal Jury in Sioux Falls has Convicted a Minnesota Man in a Drug Case Involving Large Quantities of Methamphetamine and Marijuana
- 7/30/14 – MN Man Pleads Guilty in Meth “Stash House” Case
- 6/6/14 – Claremont, MN Man Sentenced for Conspiring to Distribute Methamphetamine and Illegal Firearms Usage.
- 6/13/14 – Four Charged in Bemidji Meth Ring Bust

- 5/28/14 – Little Falls Man Pleads Guilty to Conspiring To Distribute Methamphetamine
- 4/15/14 – Meth Lab Found In Nice Southwest Minneapolis Neighborhood
- 3/3/14 – Mpls. Resident Roberto Ortiz Arrested With $1.75 Million Of Meth In His SUV
- 2/27/14 – Meth Addiction Blamed in Murder-Suicide, Minnesota Deputy Shooting (Alexandria)
- 1/24/14 – 16 Arrested In Central Meth Sting
- 4/15/13 – Tainted Meth Has At Least 12 Hospitalized
Heroin Use Steady, But Meth Is Coming Back in Twin Cities  
(MPR News – June, 2013)

Carol Falkowski (Former State Drug Abuse Officer) states in the above article that her findings for methamphetamine show methamphetamine activity has sharply reversed from a previous decline that began in 2006. Falkowski states that there is a nationwide increase especially in the Midwest.

Drug Abuse Trends in Minneapolis/St. Paul, Minnesota: June, 2013

Signs/Symptoms:

✓ Inability to sleep  
✓ Increased sensitivity to noise  
✓ Nervous activity (scratching) – Hyperactive  
✓ Picks at skin constantly  
✓ Easily agitated & aggressive, dizziness, or confusion  
✓ Increased heart rate, blood pressure, and risk of stroke  
✓ Grayish, leather-like skin  
✓ Tooth loss  
✓ Sores on skin  
✓ Rapid weight loss  
✓ Paranoid behavior  
✓ Injection sites/bruising  
✓ Red & dry nose  
✓ Strange body odor  
✓ Cotton mouth  
✓ Presence of injecting paraphernalia (syringes, spoons, or surgical tubing

Minnesota Methamphetamine Offender Registry:

» Free service established by the MN Dept. of Public Safety by order of the Governor  
» Purpose – Enhance public safety by identifying individuals who have been convicted under state law of felony level manufacture of Methamphetamine.  
» [https://mor.state.mn.us/](https://mor.state.mn.us/)
When a trend gets moving, it is hard to stop

Please report all suspicious activity…

There is NO event not important enough to report…

You may remain anonymous.

MN Pharmacists can help provide education and information to our communities and families.

Please call local law enforcement:

**EMERGENCY**
Non-Emergency (Local Number)
Crime Stoppers (Local Number)

Thanks!