In 2013, 16.3% of 12th-graders reported current (past-month) cigarette smoking, compared with 22.9% who reported current marijuana use.
First specific drug associated with initiation of illicit drug use among past year illicit drug initiates


Marijuana

2.4 million *NEW* users in past year

6,600 *NEW* users each day

Adverse Health Effects of Marijuana Use

Nora D. Volkow, M.D., Ruben D. Baler, Ph.D., Wilson M. Compton, M.D., and Susan R.B. Weiss, Ph.D.

Effects of short-term MJ use

- Impaired short-term memory (making it difficult to learn and retain information)
- Impaired motor coordination (heightening risk of injury and accidents)
- Altered judgment
- In high doses, paranoia and psychosis
Effects of long-term or heavy MJ use

- Addiction*
- Altered brain development*
- Poor educational outcome* (increased drop-out risk)
- Cognitive impairment* (lower IQ function among frequent adolescent users)
- Diminished life satisfaction and achievement*
- Symptoms of chronic bronchitis
- Increased risk of chronic psychotic disorders (including schizophrenia) in predisposed individuals

* the effect is strongly associated with initial MJ use in early adolescence

Marijuana Wax
Marijuana

Medical = 23 states, Wash DC

Recreational = Colorado, Washington, Alaska, Oregon, Wash DC, and Portland, ME.
There are currently 288 studies being conducted by the National Institutes of Health to research the cannabinoid constituents in marijuana.


Adverse Health Effects of Marijuana Use

Nora D. Volkow, M.D., Ruben D. Baler, Ph.D., Wilson M. Compton, M.D., and Susan R.B. Weiss, Ph.D.

DOI: 10.1056/NEJMr1402309
Clinical conditions with symptoms that may be relieved by MJ/cannabinoids:

- Epilepsy
- Glaucoma
- Nausea
- Multiple Sclerosis
- AIDS associated wasting syndrome
- Chronic pain
- Inflammation

Medical cannabis will be available to Minnesota residents whose health care provider certifies them to be suffering from conditions including:

- Cancer associated with severe/chronic pain, nausea or severe vomiting, or cachexia or severe wasting.
- Glaucoma.
- HIV/AIDS.
- Crohn’s Disease
- Tourette’s Syndrome.
- Amyotrophic Lateral Sclerosis (ALS).
- Seizures, including those characteristic of epilepsy.
- Severe, persistent muscle spasms, in characteristic of multiple sclerosis.
- Terminal illness, with a life expectancy of less than one year, if the illness or treatment produces severe/chronic pain, nausea or severe vomiting, cachexia or severe wasting.
MARIJUANA TALK KIT

http://drugfree.org/MJTalkKit

Helping parents talk with their teens about marijuana
Current trends:

Synthetic drugs

MOLLY

- Allegedly “molecular” MDMA, but ....?
- Powder that’s usually sold in capsules
- 3 to 6 hours duration
- Many are actually methylone
- Methylone in “bath salts”

Methylone is beta-ketone MDMA

SOURCE: National Institute on Drug Abuse
Synthetic drugs

- Manufactured in China
- Sold online
- Labeled “not for human consumption”
- Unknown chemical compounds
- Unknown & unpredictable effects
- State and Federally banned
- Chemists develop new compounds
- DEA reports 5 - 6 new ones /month

“Research chemicals”

- Depicted as research chemicals to be used by fellow researchers
- Most contain phenylethylamines – long-acting hallucinogens
- 2-CB “Nexus”
  2C-E “Europa”
  2C-I/2 C-T-7,
  NBOMe
“Bath Salts”
3,4-Methylenedioxymethcathinone

Substituted catherineones

- “Molly”
- Methylone
- MDPV

Effects like MDMA and amphetamines

Synthetic THC effects

Anxiety attacks
Agitation
Elevated heart rate
Elevated blood pressure
Vomiting
Paranoia
Hallucinations
Current trends:

Methamphetamine

Admissions to Minneapolis/St. Paul metro area addiction treatment programs by primary substance problem (excluding alcohol): 2007 - 2014

Minneapolis/St. Paul metro area addiction treatment program admissions by primary substance problem: 2014

- Alcohol: 43.1%
- Cocaine: 4.3%
- Meth: 11.8%
- Marijuana: 14.8%
- Heroin: 14.6%
- Other opiates: 8.7%
- Other/missing: 2.7%

Total admissions = 21,928

**Current trends:**

Rx opioids and heroin
Opioid prescriptions dispensed by US retail pharmacies: 1991 - 2013


Some states have more painkiller prescriptions per person than others.
Source of pain relievers for most recent nonmedical use among past year users


OPIOIDS:
- High abuse potential
- High addictive potential
- High overdose potential
Drug Deaths in United States
2000 - 2013

Heroin-related deaths nearly tripled within 3 years and quadrupled in 13


High availability of heroin

Percentage of NDTS respondents reporting high heroin availability in their jurisdictions 2007-2011, 2013

NOTE: The National Drug Threat Survey was not administered in 2012.
High availability of controlled prescription drugs


Prescription painkillers sold in Minnesota

Prescription opioid analgesics (painkillers) include: codeine, morphine, fentanyl (brand names: Sublimaze, Actiq, etc.), hydrocodone (brand names: Vicodin, Lortab), hydromorphone (brand names: Dilaudid, Palladone), meperidine, pethidine (brand name: Demerol), and oxycodone (brand names: OxyContin, Percocet, Percodan).
SOURCE: Minnesota Department of Health based on an analysis of reports of thefts or losses of controlled substances to the DEA from April of 2005 to August of 2013.
DRUG POISONING DEATHS INVOLVING HEROIN AND OTHER OPIOID DRUGS, BY COUNTY, 2006 - 2010

Source: CDC Wonder extracted February 4, 2014

http://www.whitehouse.gov/blog/2014/02/11/5-things-know-about-opioid-overdoses

Minnesota drug overdose deaths surpass traffic deaths

Sources: Minnesota Department of Public Safety, Minnesota Department of Health
• Coordinated effort across the Federal government
• 4 focus areas
  – Education
  – Prescription Drug Monitoring Programs
  – Proper Medication Disposal
  – Enforcement

Twin Cities: Addiction treatment admissions
If you encounter an opiate overdose:

NARCAN = Naloxone

Since 1996: 53,000 people trained and 10,000 overdose reversals.

“Providing opioid overdose education and naloxone to persons who use drugs and to persons who might be present at an opioid overdose can help reduce opioid overdose mortality, a rapidly growing public health concern.”

SOURCE: http://www.cdc.gov/mmwr/

Opioid Overdose Prevention Toolkit

http://store.samhsa.gov/product/Opioid-Overdose-Prevention-Toolkit-Updated-2014/All-New-Products/SMA14-4742
Addressing a drug epidemic:

- Law enforcement/curtail supply
- Public, professional education and prevention
- Access to evidence-based addiction treatment services

Addressing this drug epidemic:

Medical practitioners:
- medical education
- screening
- pain management Rxing
- Rx monitoring programs