



Addiction: It's a Brain Disease....But where do we go from here?

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Core Concept of addiction...

- MORE NEEDED..... (with diminished effects)
Tolerance /
- WITHDRAWAL..... (more taken to relieve symptoms)
Withdrawal
- MORE INGESTED..... (than intended)
- DESIRE or ATTEMPTS..... (TO CUT BACK)
Loss of Control
- TIME SPENT..... (much spent getting high or seeking drugs)
- ACTIVITY REDUCTION.... (social, occupational, and recreational)
Compulsive use
- CONTINUED USE (despite knowledge of harm)
Consequences

Core Concept of addiction...

- MORE NEEDED.....

*Tolerance /
Withdrawal*

- WITHDRAWAL.....

- MORE INGESTED.....

- DESIRE or ATTEMPTS.....

Loss of Control

- TIME SPENT.....

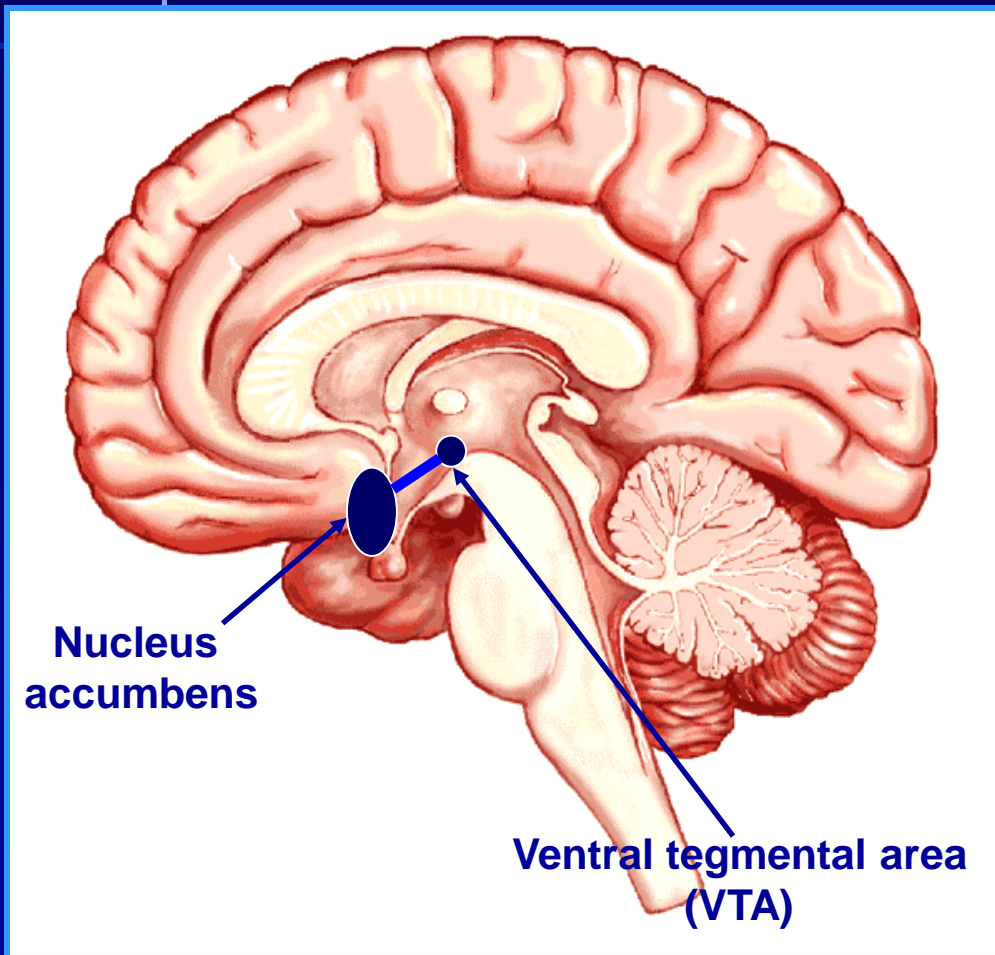
- ACTIVITY REDUCTION....

*Compulsive
Use*

- CONTINUED USE

Consequences

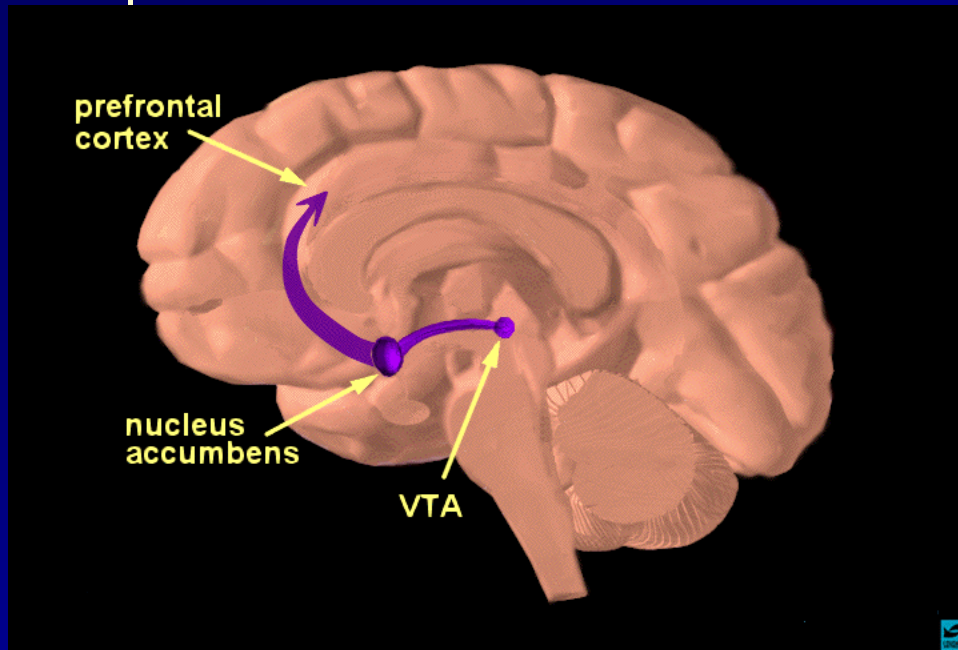
WHY DO WE LIKE TO GET HIGH?



BRAIN REWARD PATHWAY

Exists to reward us
for activities
consistent with our
survival

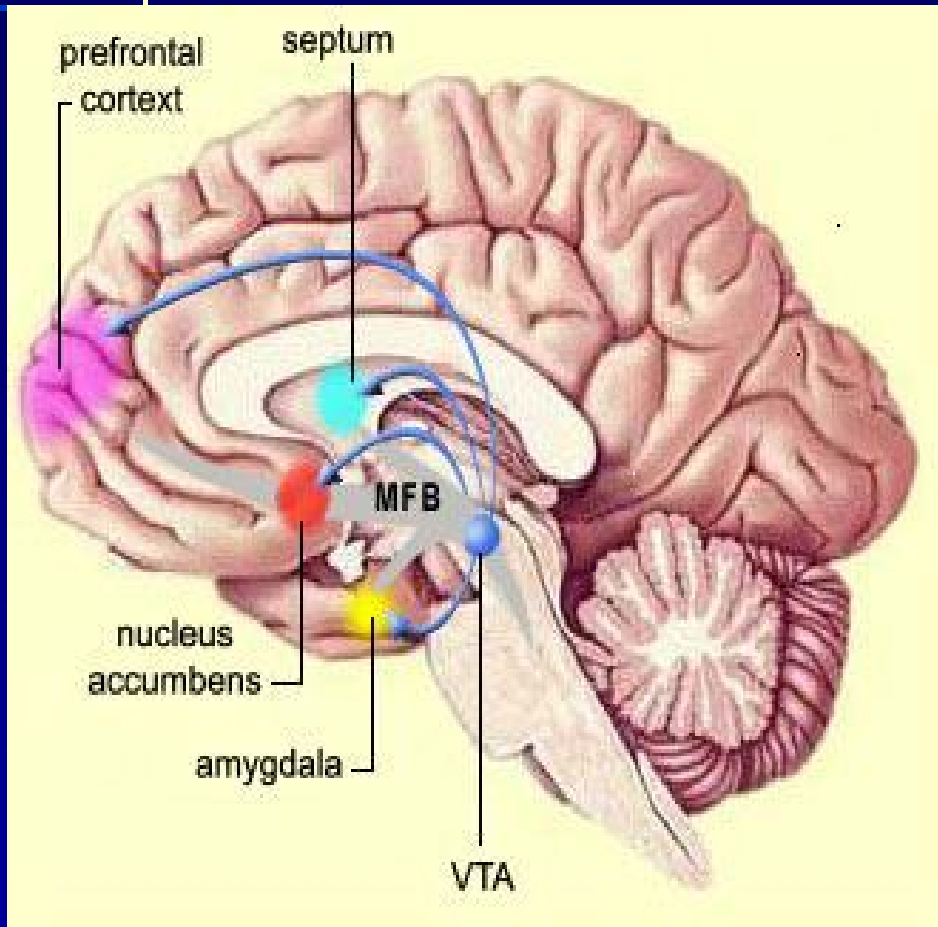
WHY DOES THE REWARD PATHWAY EXIST?



Exists to reward us for activities consistent with our survival

- Food
- Water
- Sex
- Child Rearing

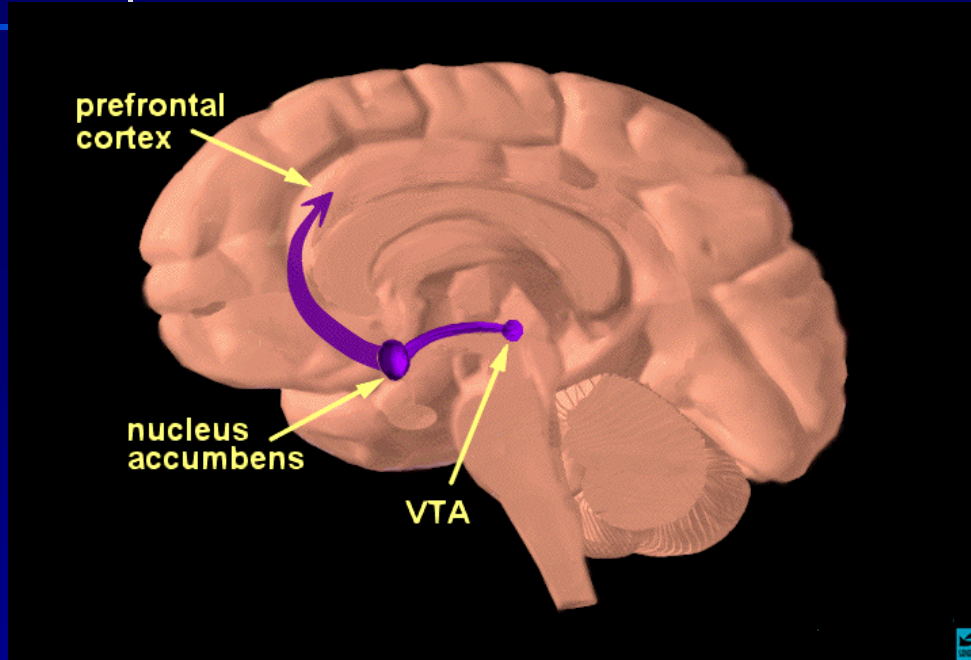
THE POWER OF THE BRAIN REWARD PATHWAY



**Exists to reward us
for activities
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survival**

- Food
- Water
- Sex
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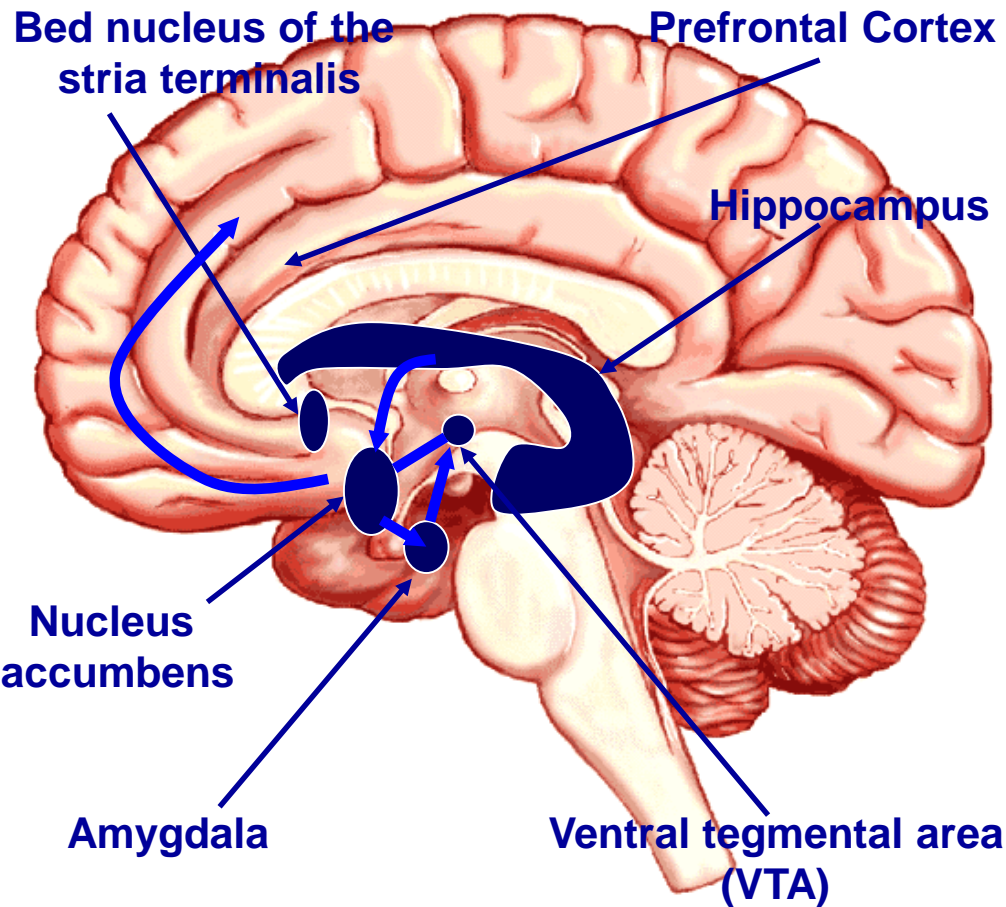
WHY DO WE USE DRUGS?



BRAIN REWARD PATHWAY

- I like
- I want
- NEUROADAPTATION
- I need !!!
- Brain Hijacked

WHY DO WE USE DRUGS?



BRAIN REWARD PATHWAY

- Food
- Water
- Sex
- Child Rearing
- **DRUG of CHOICE**

Loss of control or Powerlessness?

- We just described the Neurobiological basis of the "First Step."
- "Our lives have become unmanageable and we admit our powerlessness over alcohol."

Why are some people more predisposed?

- Genetic predisposition.
- Social factors and availability of drug.
- Environmental factors, trauma.
- Co-occurring psychiatric disorders.
- Disabling medical conditions.
- Chronic pain.

Genetic Predisposition

- Sons of alcoholics are 3-4 times more likely to develop alcoholism
- Wired to get high
- Genetics alone does not explain it all.
- Many children of chemically dependent parents never develop addiction

Social factors and availability

- Drug availability
- Societal attitudes toward drug use
- Peer group attitudes toward drug use

Environmental factors and trauma

- Childhood abuse or neglect is a strong predictor
- Adult trauma including bereavement
- Trauma is near universal, how it gets handled is what determines impact
- Unaddressed , untreated trauma is highly correlated with addiction

Veterans and returning Guardsmen

- Beginning to see increasing number of veterans and guardsmen from OIF and OEF
- Vast majority are abusing alcohol
- Prescription drug abuse is going unrecognized. Just as lethal and dysfunctional
- At High risk for illicit drug use.
- Need for early recognition and referral

Co-occurring psychiatric and medical conditions.

- Major depression, Anxiety disorders and PTSD
- Bipolar disorder and Schizophrenia
- Personality Disorders
- Chronic pain
- Terminal medical conditions

Addiction is.....

- A chronic relapsing medical disorder with relapses and remissions, that needs treatment.
- Has complex genetic, environmental and individual influences.
- It is NOT a moral weakness.
- characterized by loss of control .
- "Just say no !" does NOT work.
- Treatment works.

It's a Brain Disease...But where do we go from here?

- There is a part of our Brain that is trying to get us high!
- So how do you fight an enemy within?
- Are the 12 steps actually relevant?

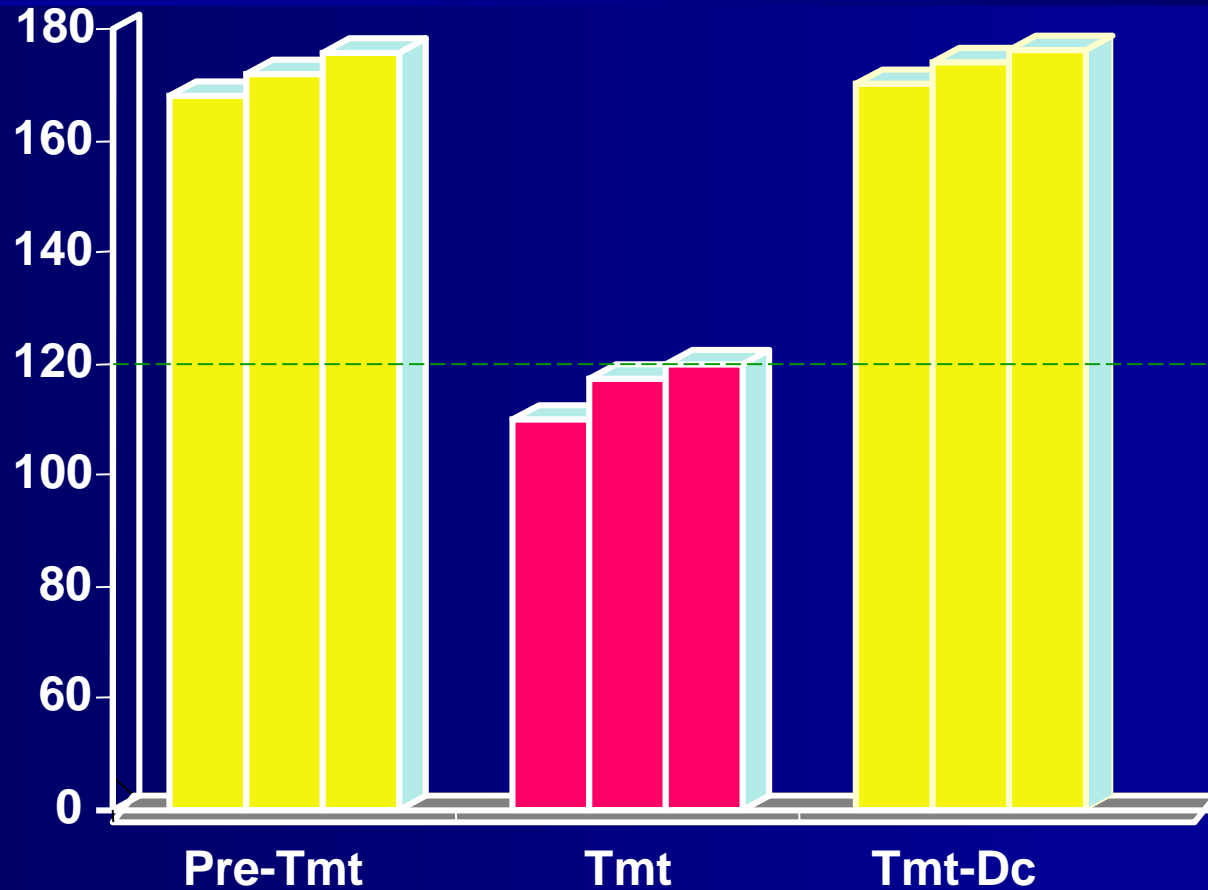
It's a Brain Disease...But where do we go from here?

- " I have not had a drink in 20 years, so I know I can have a drink now."
- " I only have a problem with cocaine, so I can keep on drinking...right?"
- "I am having surgery, do I need to tell my doctor I am an alcoholic"

BREAK

- Questions?

Treatment Implications



It is a Chronic Medical Disease..

- How do you talk to families with history of addiction.
- Role of primary prevention.
- Living with Addiction is like living with any other Chronic Medical Condition.

What drugs are likely to be abused?

- Cross the Blood Brain Barrier
- Cause euphoria
- Short onset of action
- Short half life
- Quick delivery mechanism
- Few side effects

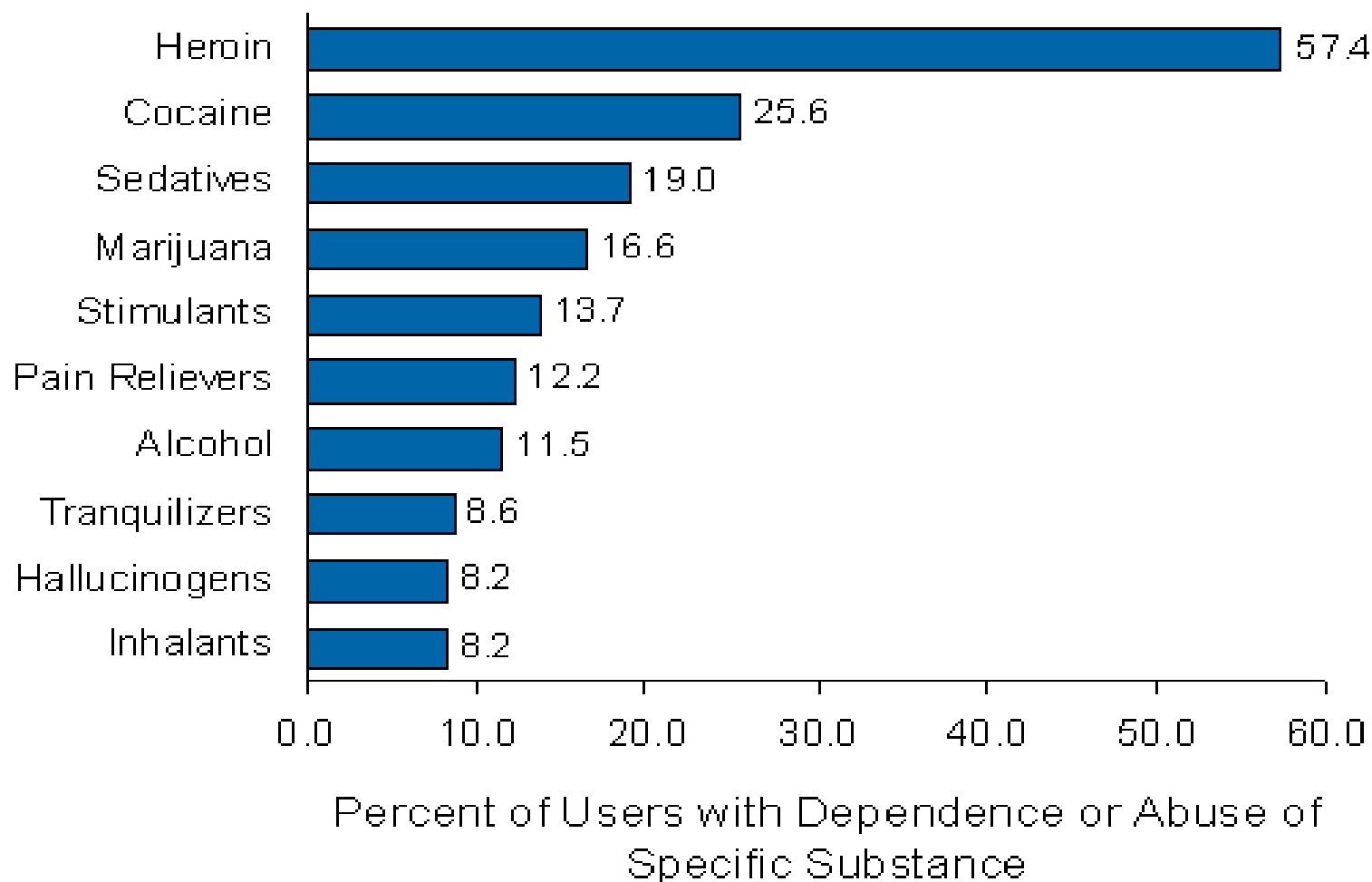
If there were an ideal drug of abuse.....

- Cheap
- Easy availability
- Quick onset, high reinforcement potential
- Route of delivery
- Does not impair judgment
- Legal
- Non lethal!

Nicotine is the ideal drug of abuse ...
and the cigarette is the ideal delivery
system for nicotine ...

Making cigarettes the most addictive
of all drugs!!

Past year Dependence by Drug Class



Past year Dependence by Drug Class

More than 90 % of people who smoke are addicted to nicotine!

Thought for the day: If we tell alcoholics they should not use cocaine, should we let them use the most addictive substance known to man: Nicotine?



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