

A Way to Approach Addiction in Your Readmission Reduction Efforts

Mark Stanford, PhD

Santa Clara Valley Medical Center - Dept of Alcohol & Drug Services
Associate Professor Psychopharmacology - UC Berkeley Extension
Clinical Associate Professor - Stanford University School of Medicine
(affiliate)

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There is a growing body of research that demonstrates the many living examples of the benefits of integrating primary care services that directly helps the system of care meet and sustain the goals of the Triple Aim as established by the Institute of Medicine.

1. Improved care quality
2. Improved patient experience of care
3. Reduced health care costs

The Case for Integrating Substance Use Services and Primary & Specialty Care

Individuals living with a substance use disorders (SUD) often have one or more physical health problems such as pulmonary disease, hepatitis, HIV/AIDS, cardiovascular disease, cancer and mental disorders such as depression, anxiety, bipolar disorder, and schizophrenia.

In fact, research has shown that persons with SUD have:

- * 9 times greater risk of congestive heart failure
- * 12 times greater risk of liver disease
- * 12 times the risk of developing pneumonia

Mertens JR, Lu YW, Parthasarathy S, Moore C, Weisner CM. Medical and psychiatric conditions of alcohol and drug treatment patients in an HMO. 2003, Arch Int Med 163:2511-2517.

The Case for “ROI”

Cost and utilization data show that the use of early identification of SUD in medical and primary care settings, together with collaborative care, can result in streamlined costs.

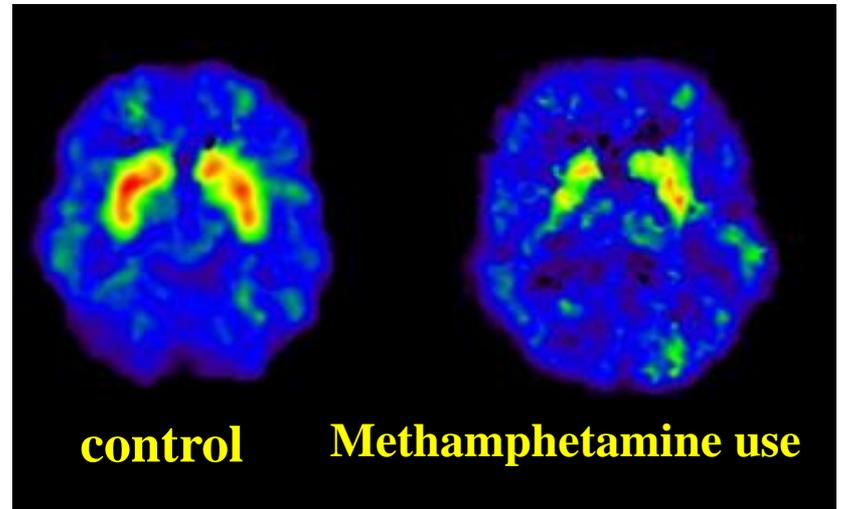
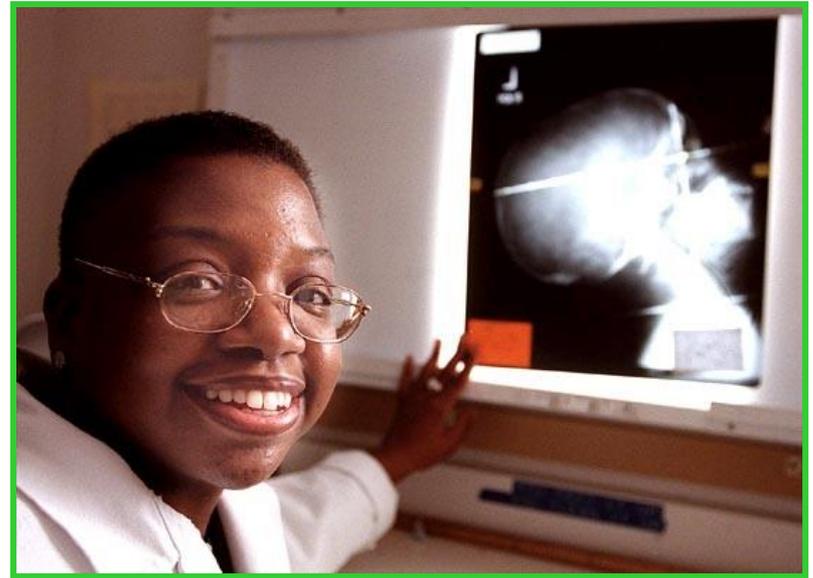
The case for a return on investment (ROI) includes specific areas of decreased overuse of medical care, avoided costs related to prevention, preventable hospital readmissions and improved disease management by a ratio of \$4.00 in savings for every \$1.00 spent on screening and treatment.

Parthasarathy, S., Mertens, J., Moore, C., & Weisner, C. (2003). Utilization and cost impact of integrating substance abuse treatment and primary care. *Medical Care*, 41(3), 357-367.

Objectives for today's talk

- Review the scientific literature on substance use disorders (SUD)
- Highlight the evidence-based practices to treat substance use disorders
- Review the SCVMC Heart Failure Program and the planned integrated care approach for comorbid SUD

In just the last 5 – 10 years, advances in science have revolutionized our fundamental views of substance use disorders and allowed for the development of improved treatments!

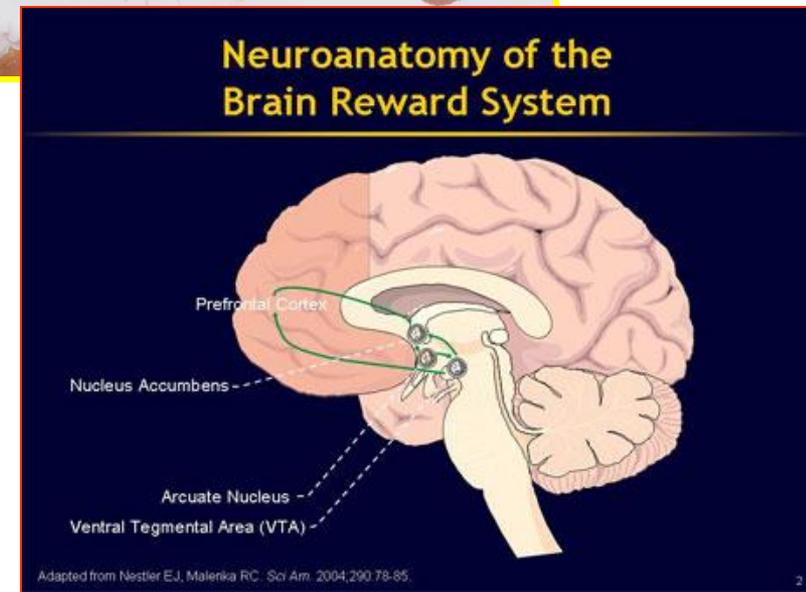


The Journey of Scientific Discovery

- Disease model
 - 1930 AA is founded by a physician and business man
 - 1956 AMA released formal statements supporting the definition of alcoholism as a disease”
- Reward center of brain (Olds and Milner, 1954)
 - Identified from work performed in animals
- Further Experimental results
 - Stimulation
 - Ablation
 - Blockade studies
 - Neuroimaging studies (PET Scans, SPECT scans)

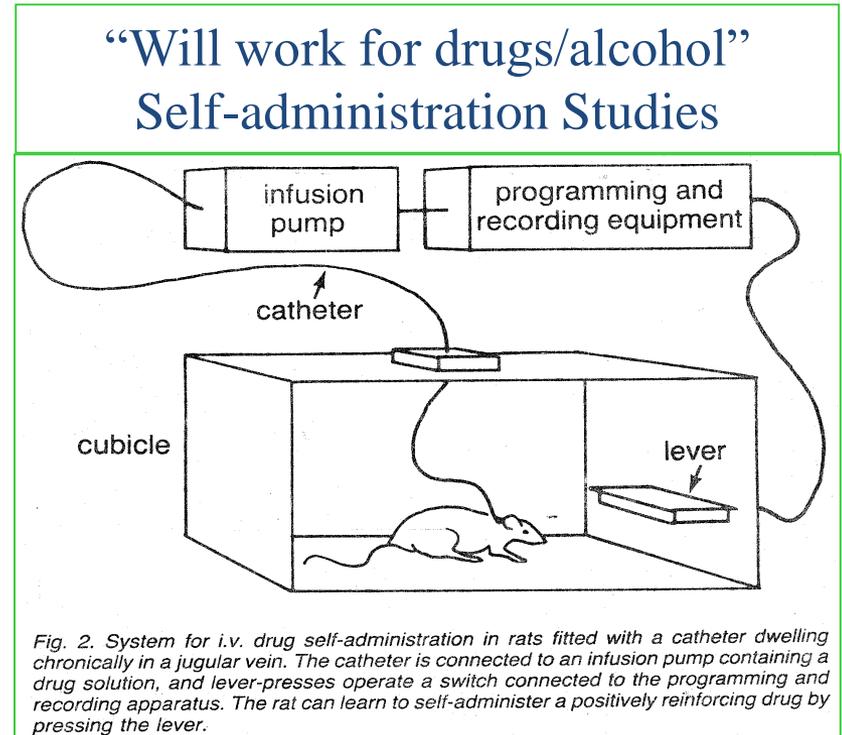
Behaviors experienced as pleasurable are processed by an area of the brain, called the *mesocorticolimbic (MCLP)* pathway – the brain reward system

- Hardwired in all animals and fundamental for survival
- Activated by the ntx *dopamine*
- Produces pleasure which motivates behaviors needed for survival:
 - Eating
 - Drinking
 - Mating
 - Nurturing

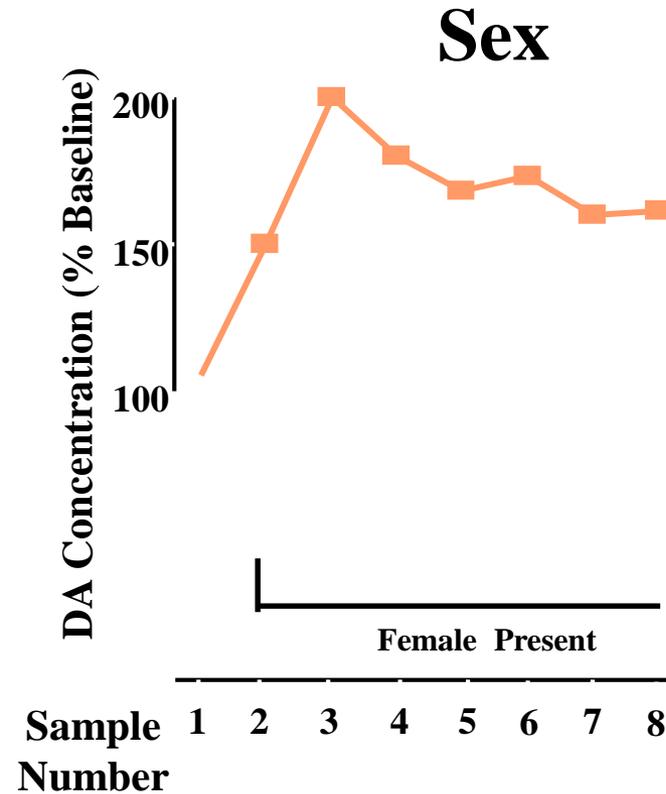
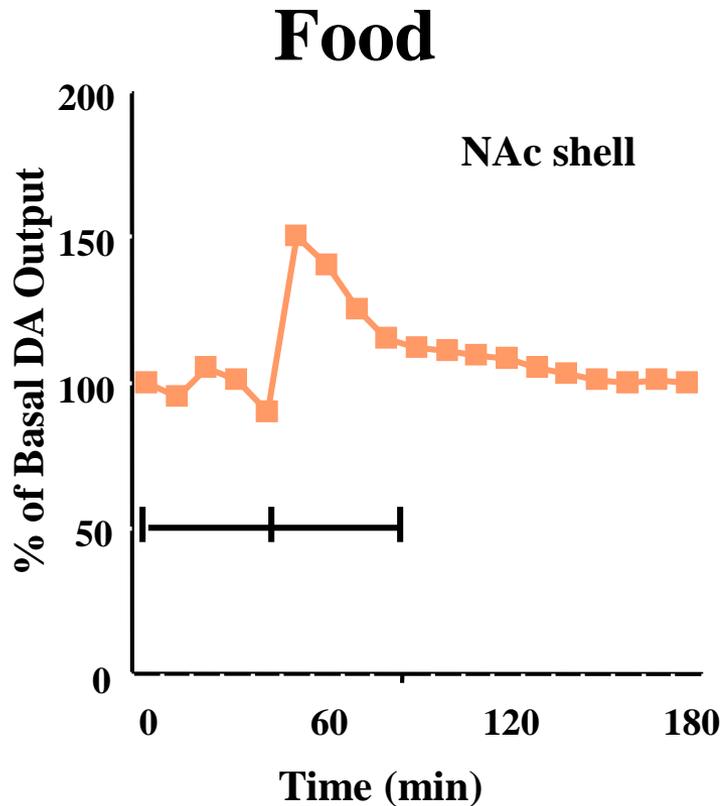


Evidence for reward pathway

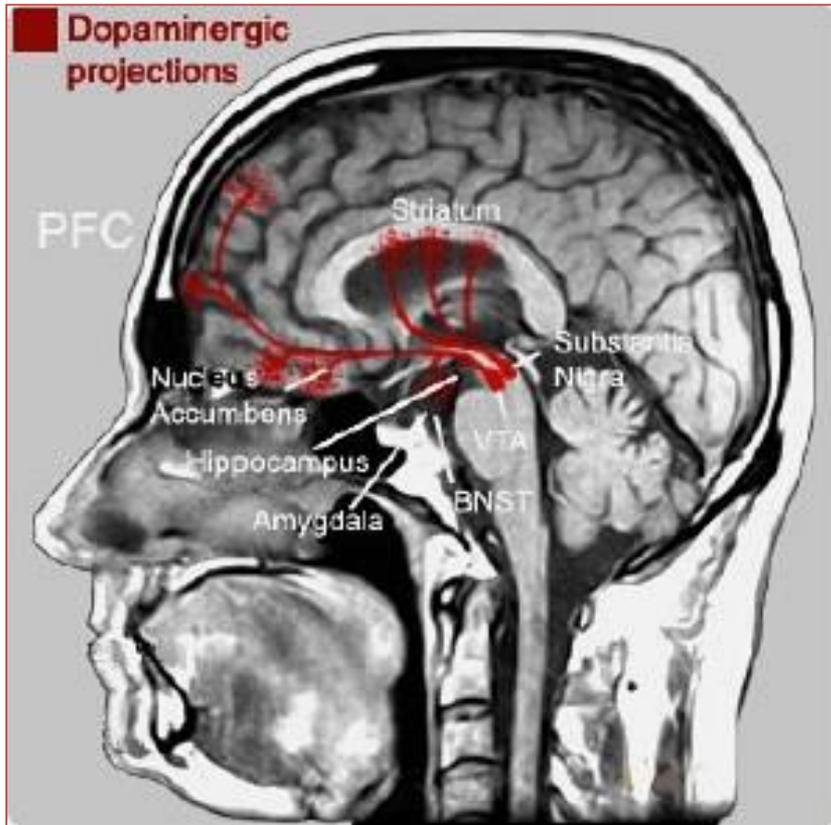
- Stimulation (electrical or chemical) of NA & VTA is intrinsically rewarding.
- Stimulation elsewhere is not
- Reward can be interrupted by
 - Severing NA-FC fibers
 - Using dopamine blockers
- Blocking can interrupt naturally rewarded behaviors
 - i.e., patients on drugs that block dopamine “look flat” to us and experience decreased emotions



Natural Rewards Elevate Dopamine Levels in the MCLP

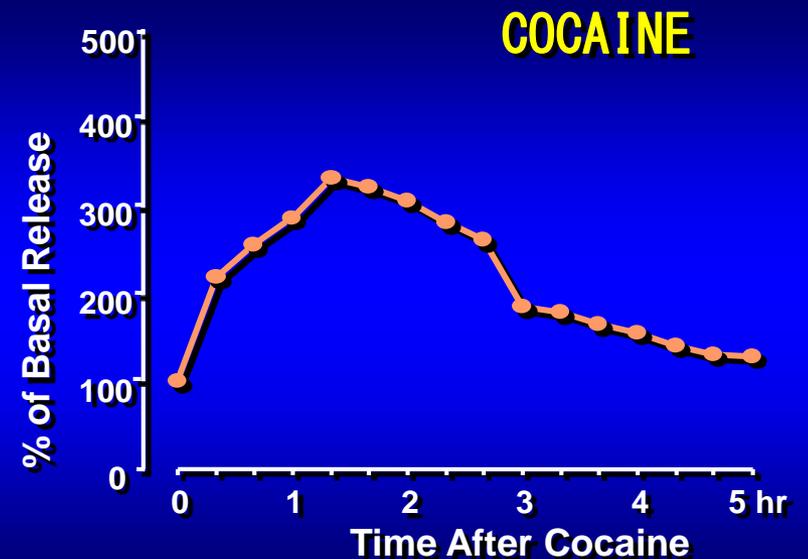
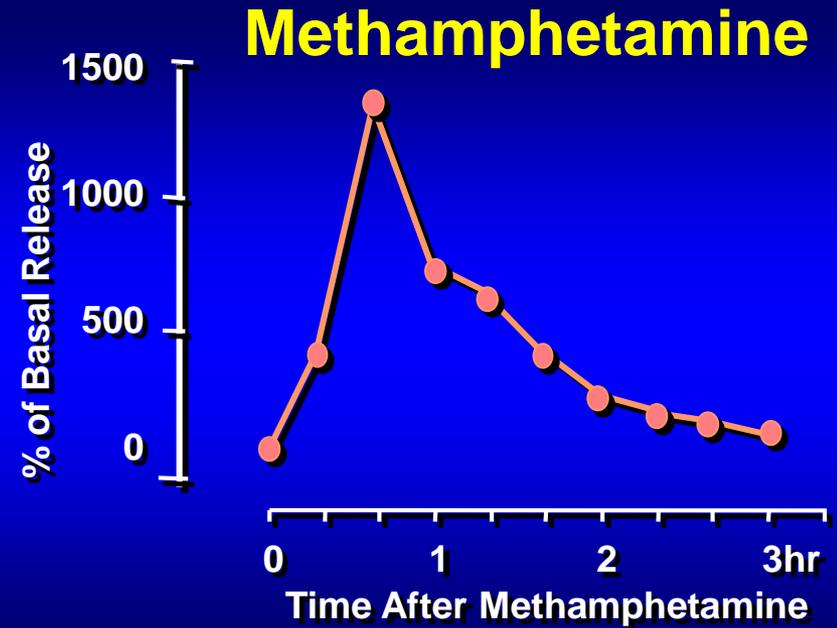
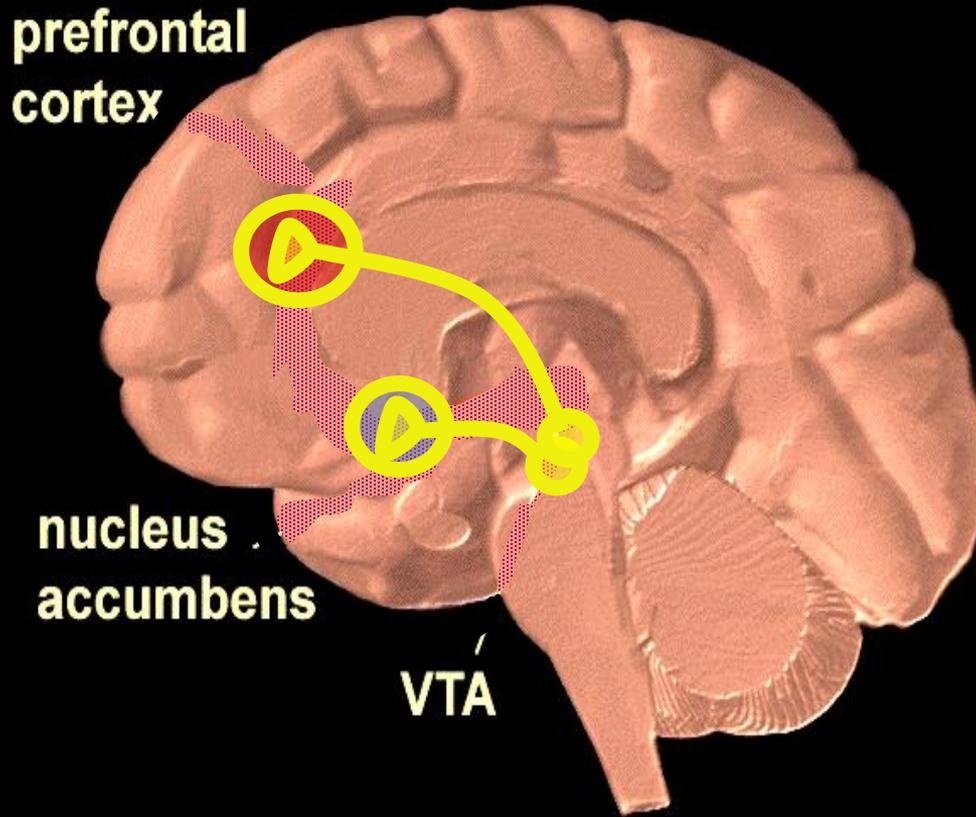


All drugs of abuse target the brain's reward circuitry and disrupt functioning



- Drugs change the brain's balance
- The brain has mechanisms to oppose this change
- The balancing action overcompensates, and
- The stronger the drug, the higher the dosage and the longer the use, the more the impaired functioning

Dopamine Levels

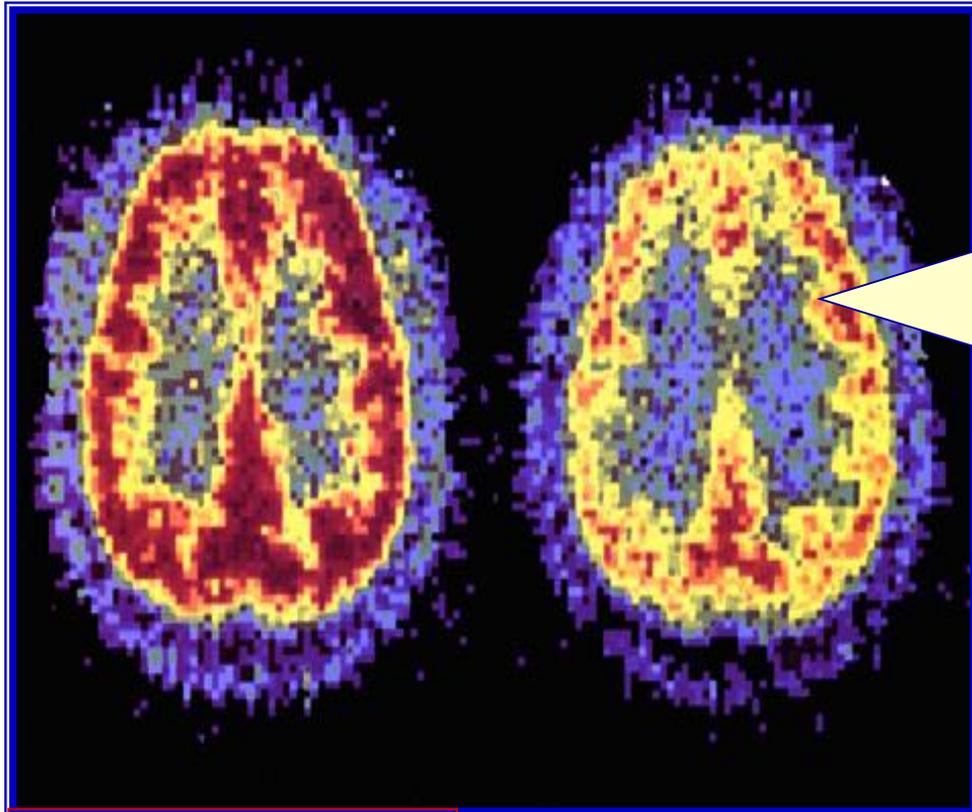


Neuroadaptation

Example: alcoholism

- Long term adaptive changes to the inhibitory GABAergic system and to the excitatory glutamatergic systems are thought to underlie the development and maintenance of alcohol dependence
- To compensate for the sedative effects of alcohol there occurs an up-regulation of the excitatory system and a down-regulation of the inhibitory system
- In withdrawal the CNS is left in a hyperexcitable state: anxious, sleepless, tremulous, and tachycardic/hypertensive

Research shows that . . .



control

**methamphetamine
addicted brain**

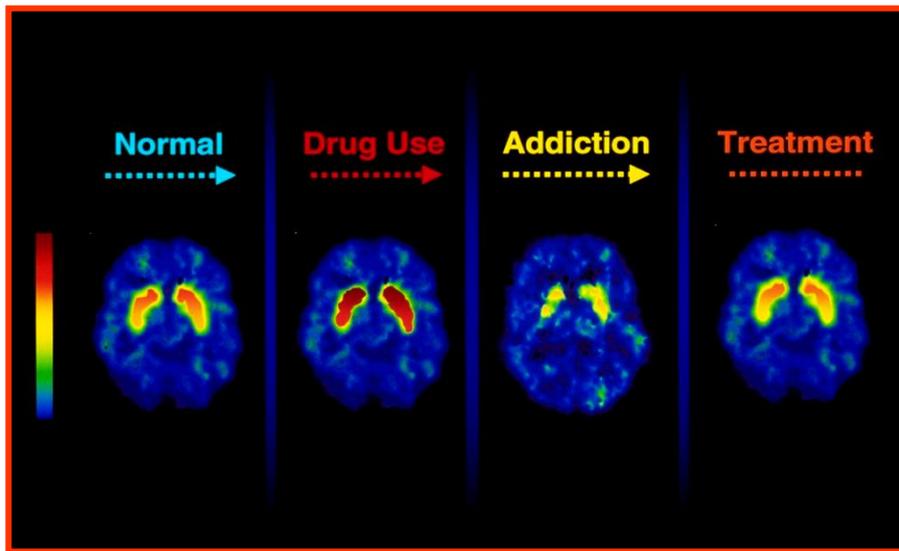
**Prolonged Drug
Use Changes
the Brain**

**in
Fundamental
and Lasting
Ways**

And there is scientific evidence that these changes can be both structural and functional.

How is substance abuse defined after 30 years of robust scientific study?

- Called *Substance Use Disorders* (SUDs), it more accurately describes a continuum of severity from misuse, to problem use, dependence, and addiction.
- Addiction, the most severe form of SUDs, is a chronic and relapsing condition much like diabetes, hypertension and asthma. Treatment success and relapse rates for SUD mirror those other chronic disorders
- Addiction is a primary disease and not the result of other emotional or psychiatric problems.



From decades of outcomes, we know that
Treatment works!

40-60%

**Compulsive
illicit drug use**

40-60%

**Criminal
activity**

60%

Unemployment

NIDA. 2006.

How do treatment outcomes compare?

Comparison of Relapse Rates Between Drug Addiction and Other Chronic Illnesses

Percentage of Patients Who Relapse



**Chronic Illness Relapse Rates
(after diagnosis, treatment and stabilization)**

The National Institute of Drug Abuse (NIDA), National Institute of Alcohol Abuse and Addiction (NIAAA), and the Institute of Medicine (IOM) have each articulated explicit evidence-based standards for effective SUD treatment services.

The cornerstones of these guidelines are:

- ✓ Addiction is a chronic disease
- ✓ Addiction is treatable
- ✓ Addiction treatment must be on-going and continuous
- ✓ No single treatment is effective for all individuals
- ✓ Co-occurring medical and psychiatric conditions must be addressed

The National Quality Forum

The National Quality Forum (NQF), dedicated to improving the quality of health care in the United States, has identified and endorsed 8 evidence-based standards of care for the treatment of substance use disorders:

1. Screening & case finding
2. Diagnosis & assessment
3. Brief intervention
(methadone, buprenorphine, acamprosate, etc.)
4. Promoting engagement in treatment
5. Withdrawal management
6. Psychosocial interventions
7. Pharmacotherapy
naltrexone,
8. Continuing care management

Substance Abuse Treatment Effectiveness

Insufficient Evidence of Effectiveness

- Alcoholics/Narcotics Anonymous (not treatment)
- Hypnosis
- Psychedelic medication therapy (i.e. Ibogaine)
- Non-SSRI antidepressant therapy (i.e. bupropion)
- Milieu Therapy
- Anxiolytic therapy (i.e. alprazolam)
- Relaxation training
- Confrontational counseling
- Psychotherapy
- General alcoholism counseling (i.e. 12 Steps)
- Educational lectures and films

Substance Abuse Treatment Effectiveness

Evidence-Based Practices

- Cognitive-behavioral intervention
- Community reinforcement
- Motivational enhancement therapy
- Manualized treatment (MATRIX Model)
- Contingency management
- Pharmacotherapy
- **SBIRT**

1. L. Onken (2002). Personal Communication. National Institute on Drug Abuse.
2. Principles of Drug Addiction Treatment: A research-based guide (2006). National Institute on Drug Abuse



Substance Abuse Treatment Effectiveness **Evidence-Based Practices** **Medication-Assisted Treatment**

Alcohol: Naltrexone, nalmefene, disulfiram,
acamprosate, odansetron, topiramate

Opiates: Methadone, buprenorphine, naltrexone

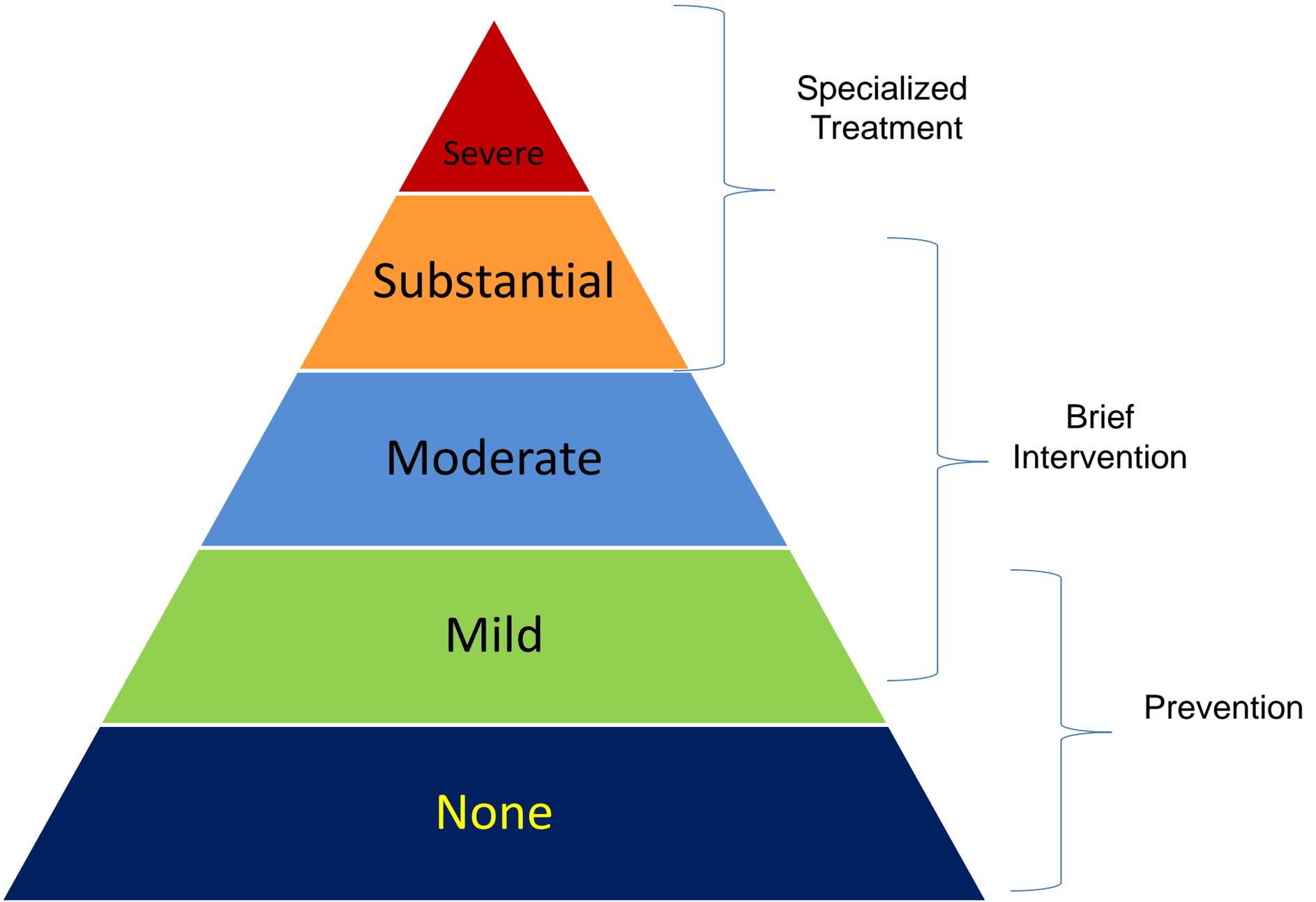
Nicotine: Nicotine replacement (gum, patches, spray),
Zyban, Chantix

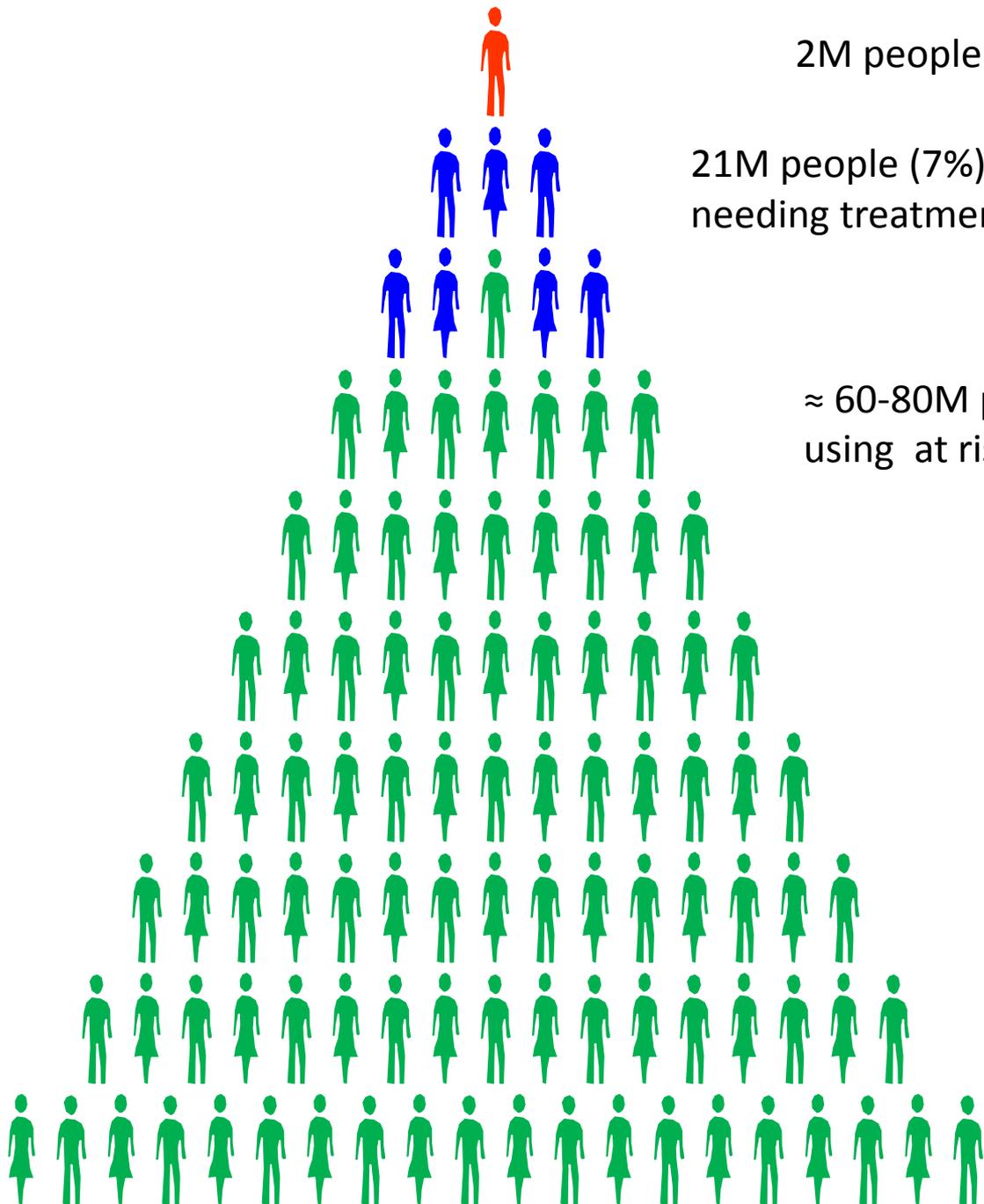
Cannabinoids Rimonabant, cannabinoid replacement therapy,
(Gabapentin maybe?)

Stimulants: None to date (3 in the pipeline)

**Persons with SUDs are not just a
homogenous group of people
who use/drink in excess.**

Rethinking the “Drug Abuser”





2M people (0.8%) receiving treatment*

21M people (7%) have problems
needing treatment, but not receiving it*

≈ 60-80M people (≈20-25%)
using at risky levels

US Population:
307,006,550

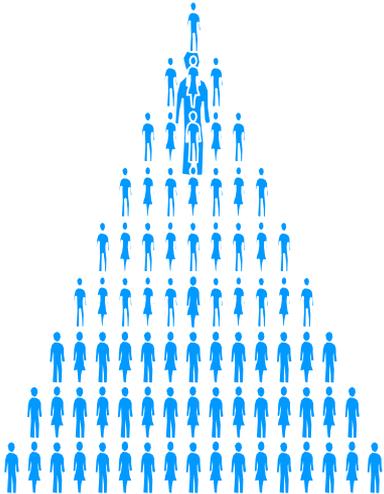
US Census Bureau, Population Division
July 2009 estimate

*NSUDH, 2008

Rawson, R. UCLA ISAP
2011

In need of treatment (21 Million)

- Reported problems associated with use
- Not in treatment currently
 - 1.1% Made an effort to get treatment
 - 3.7% Felt they needed treatment, but made no effort to get it.
 - **95.2% Did not feel that they needed treatment**



These people
need services,
but will
never enter
the treatment
system



Using at risky levels (60-80 Million)

- Do not meet diagnostic criteria
- Level of use indicates risk of developing a problems.
- Some examples:....

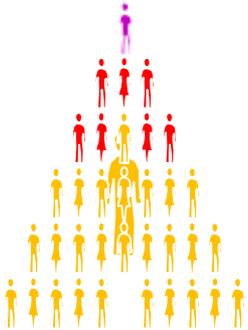


Drinks 3-4 glasses of wine a few times per week

Pregnant woman occasionally has a shot of vodka to relieve stress

Adolescent smokes marijuana with his friends on weekends

Occasionally takes one or two extra Vicodin to help with pain



Implications

As long as referral to specialty care treatment is the only way to address substance use disorders:

- most people with severe SUD will not receive treatment.
- virtually everyone with risky SUD will not receive any professional attention.

If the majority of persons with risky substance use disorders are not in or interested in treatment -

Where Are They?????



The link between substance use disorders and physical health has been well established

Addiction disorders affect 20% to 50% of hospitalized patients, and up to 30% of patients seen in primary care settings, yet in most patients the addiction disorder remains undiagnosed and untreated.

More than two thirds of individuals with substance use disorders have seen a primary care physician for a problem.

JAMA:2001;286:1764-1765.

About 20% of patients seen by family physicians have substance abuse problems (excluding tobacco use).

American Family Physician 2003;67:1529-32, 1535-6.

Health systems and practice standards are changing!

The National Association of Public Hospitals and Health Systems (NAPH)

NAPH has made reducing hospitalization readmissions a priority, motivated by a range of factors from patient satisfaction to cost reimbursement.

The most frequently cited significant contributors of readmissions are: *patient drug/alcohol abuse*; patients not following up with appointments; and homelessness

The Joint Commission

In January 2012, **The Joint Commission** developed an added core measure set for hospitals to meet their four core measure set accreditation requirement.

The new core measure set focuses on routine substance abuse screening, brief intervention, and referral to treatment (SBIRT) for all hospitalized patients

Specifications Manual for National Hospital Inpatient Quality Measures. TJC. 2012.

Health. 2012.

Trauma Centers and Emergency Departments

Alcohol interventions are associated with a reduction of alcohol intake and a reduced risk of trauma recidivism. Given the prevalence of alcohol problems in trauma centers, screening, intervention and counseling for alcohol problems should be routine.

Annals of Surgery. Vol 230.No 4. 473-483.

Patients who receive brief intervention (BI) during a trauma center admission are less likely to be arrested for DUI within 3 years of discharge. BI represents a viable intervention to reduce DUI after trauma center admission

Journal of Trauma. 2006;60:29-34.

Screening and brief intervention for alcohol problems in trauma patients is cost effective (an ROI of 1:4) and should be routinely implemented.

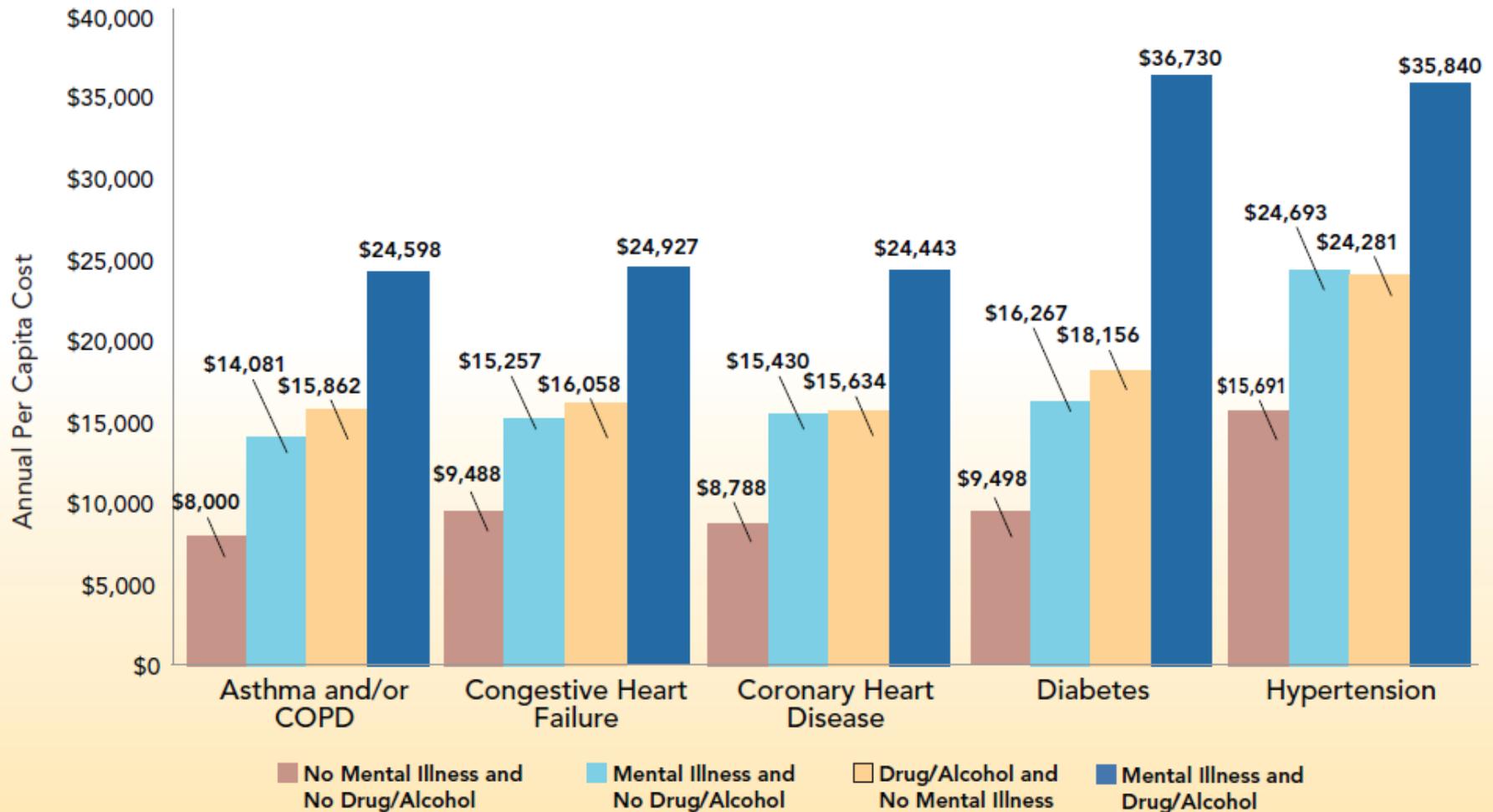
Annals of Surgery. 2005; 241: 541-550

What does this mean?

An Opportunity To Avoid Hidden Costs, Improve Quality of Care, and Improve Patient Experience of Care

Assumptions that SUD treatment is too costly or ineffective are incorrect and do not reflect the reality of advancements in treatment and health care management over the last two decades.

Substance Use & Per Capita Medical Costs

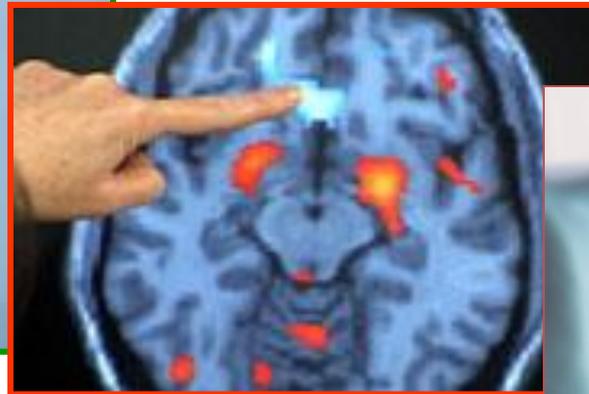


Targeting non-traditional healthcare settings for locating individuals with SUDs

- Primary care settings
- Emergency rooms/
Trauma centers
- Prenatal clinics/OB/Gyn offices
- Medical specialty settings for diabetes, liver and kidney disease, transplant programs
- Pediatrician offices
- College health centers
- Mental health settings



How to integrate SUD Treatment into Primary & Specialty Care Medicine



The SCVMC Heart Failure Program

The SCVMC Heart Failure Program

Heart Failure (HF) is a complex condition associated with considerable morbidity and mortality with readmission rates as high as 50 percent within one year of initial hospitalization for HF.

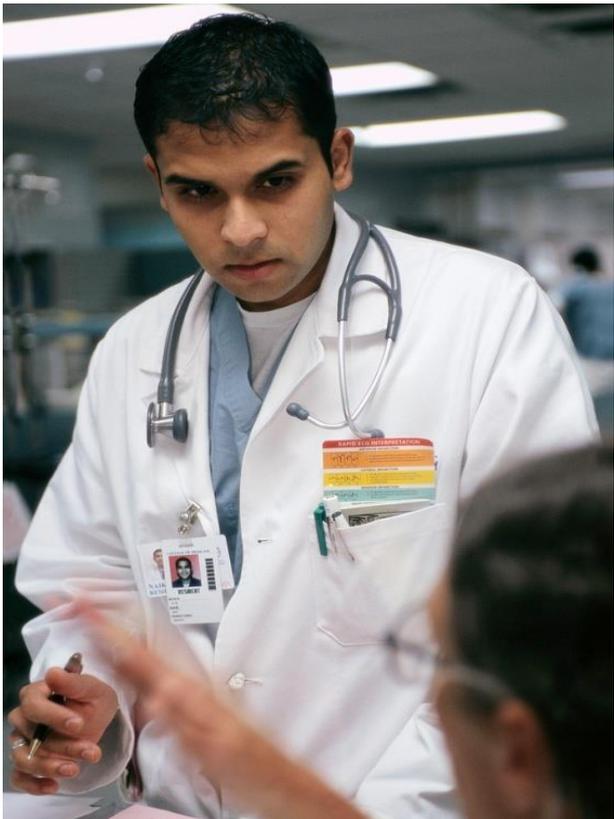
Despite advances in the medical management of HF, drug related problems, such as non-adherence, remain a major factor for hospital readmissions. In addition, poor continuity of discharge care with cardiology can also contribute to HF hospital admissions.

The main objective of the SCVMC Heart Failure Program study is to assess the impact of having a multidisciplinary team, consisting of cardiologists, hospitalists, a nurse, a pharmacist, a health education specialist, and a social worker, on HF hospitalizations and HF emergency department or Observation visits, over a six month period.

It is estimated that approximately 50% of patients within the HFP have co-occurring substance use disorders and a large cohort of this group are methamphetamine addicted.

Therefore, having specialty SUD treatment is an important component to the program.

Most Integrated Behavioral Health and Primary Care Medicine use the approach called *SBIRT*



- **S**creening, **B**rief **I**ntervention and **R**eferral to **T**reatment
- Evidence-based early intervention strategy
- Designed to identify and intervene with at-risk and high-risk users in the healthcare/hospital and other settings.

Screening

Involves the use of specific, evidence-based questionnaires in verbal, written or electronic formats that are designed to detect risky alcohol and/or drug use.

The questions asked in formal screening are intended to measure quantity and frequency of substance use over defined periods, as well as the occurrence of its adverse consequences.

These screenings are designed to be quick, often lasting only five to fifteen minutes.

Make screening a routine practice: CAGE-AID

When thinking about drinking or drug use, including illegal drug use and using prescription drugs in ways other than prescribed:

1. *Have you ever felt you ought to cut down on your drinking or drug use?*

Yes (1)

No (0)

2. *Have people annoyed you by criticizing your drinking or drug use?*

Yes (1)

No (0)

3. *Have you ever felt bad or guilty about your drinking or drug use?*

Yes (1)

No (0)

4. *Have you ever had a drink or used drugs first thing in the morning to steady your nerves or get rid of a hangover ?*

Yes (1)

No (0)

Brief Intervention

Generally consists of a nonconfrontational encounter between a health professional and a patient that is designed to help improve chances that the patient will reduce risky alcohol consumption or discontinue harmful drug use.

A brief intervention goes beyond the sharing of simple advice.

Evidence-based approaches are used to give the patient tools for changing his/her beliefs about substance use and coping with everyday situations that exacerbate his/her risk for harmful use.

SBIRT is all about creating a meaningful conversation.

One interviewing technique is known as the FRAMES model of intervention.

- Give **F**eedback regarding drug and alcohol use
- Leave **R**esponsibility for change to the patient
- Give **A**dvice to make a change
- Provide a **M**enu of options
- Use an **E**mpathic conversational style
- Boost the patient's **S**elf-efficacy to make a change

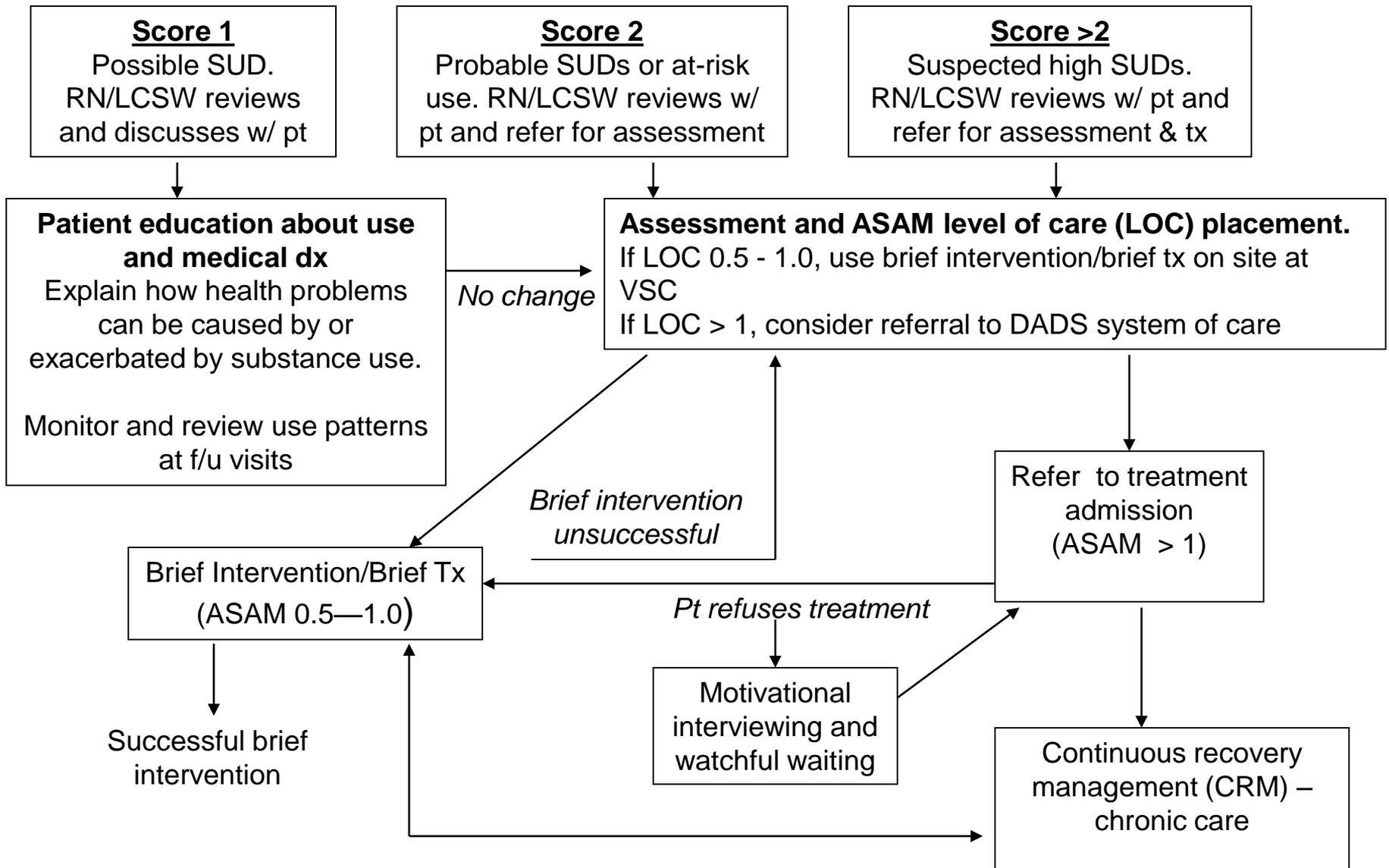
Next Steps

Brief Treatment: for individuals at moderate to high risk, brief treatment emphasizes motivations to change and client empowerment.

Brief Treatment consists of a limited number of highly focused and structured clinical sessions with the purpose of eliminating hazardous and/or harmful alcohol and/or substance use.

Referral to Treatment: for those whose screening indicates a severe problem or dependence or who find themselves unable to limit drinking, the next step is referral to specialized treatment for substance use disorders.

SCVMC Heart Failure Program – Patient Flow SUD



Routine screening for early identification of substance use disorders (SUD)

- Screen all primary care patients for SUD using the CAGE-AID.
- Patients can self administer the screen, although be mindful of language/reading concerns.
- Offer assistance.
- Inform patients that this is now being asked of all patients in order to help accomplish their health goals
- RN or LCSW reviews U-Tox and CAGE-AID screen with patient and clarifies frequency and duration of use.
- Assessments using the American Society of Addiction Medicine (ASAM) tool.

Results of SBIRT

SBIRT programs decrease illicit-drug use rates by 67.7 percent and heavy alcohol use rates by 38.6 percent.

Researchers from the Office of National Drug Control Policy, National Institute on Drug Abuse and the Substance Abuse and Mental Health Services Administration (SAMHSA) analyzed data from 459,599 patients who were screened for alcohol and other drug use at a variety of health-care facilities, and followed up with subjects six months later to track changes in drug-use rates.

The report showed that of the illicit-drug users participating in SBIRT programs, 64.3 percent reported fewer arrests, 45.8 percent who were homeless said they were no longer homeless and 31.2 percent reported fewer emotional problems.

Applying SBIRT to SCVMC HFP patients with SUD will result in improved compliance with their post discharge care plan, reduced preventable complications, and avoidable hospital readmissions.

Bibliography and Resources

Evidence-based treatment for substance use disorders

http://www.samhsa.gov/ebpWebguide/appendixB_Treatment.asp

<http://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/evidence-based-approaches-to-drug-addiction-treatment>

A Guide to Substance Abuse Services for Primary Care Clinicians

<http://www.ncbi.nlm.nih.gov/books/NBK64827/>

Integrating Addiction and Primary Care Services

<http://www.integration.samhsa.gov/about-us/esolutions-newsletter/integrating-substance-abuse-and-primary-care-services>

Screening, Brief Intervention, and Referral to Treatment (SBIRT)

<http://www.samhsa.gov/prevention/sbirt/>

Thank you!