

Behavioral Health is Essential To Health



Prevention Works



Treatment is Effective



People Recover



Prescription Drug Abuse & Misuse: Neurobiology, Epidemiology, & EBPs

H. Westley Clark, M.D., J.D., M.P.H., CAS, FASAM

Director

Center for Substance Abuse Treatment

Substance Abuse Mental Health Services Administration

U.S. Department of Health & Human Services

**ASTHO Winter Member Meeting
Prescription Drug Abuse & Misuse
Chapel Hill, NC • December 4, 2013**





President Barack Obama

“Every day, millions of Americans with substance use disorders commit to managing their health by maintaining their recovery from drug or alcohol addiction. People in recovery are not strangers: they are our family members, friends, colleagues, and neighbors.”

Presidential Proclamation -- National Alcohol and Drug Addiction Recovery Month, 2012

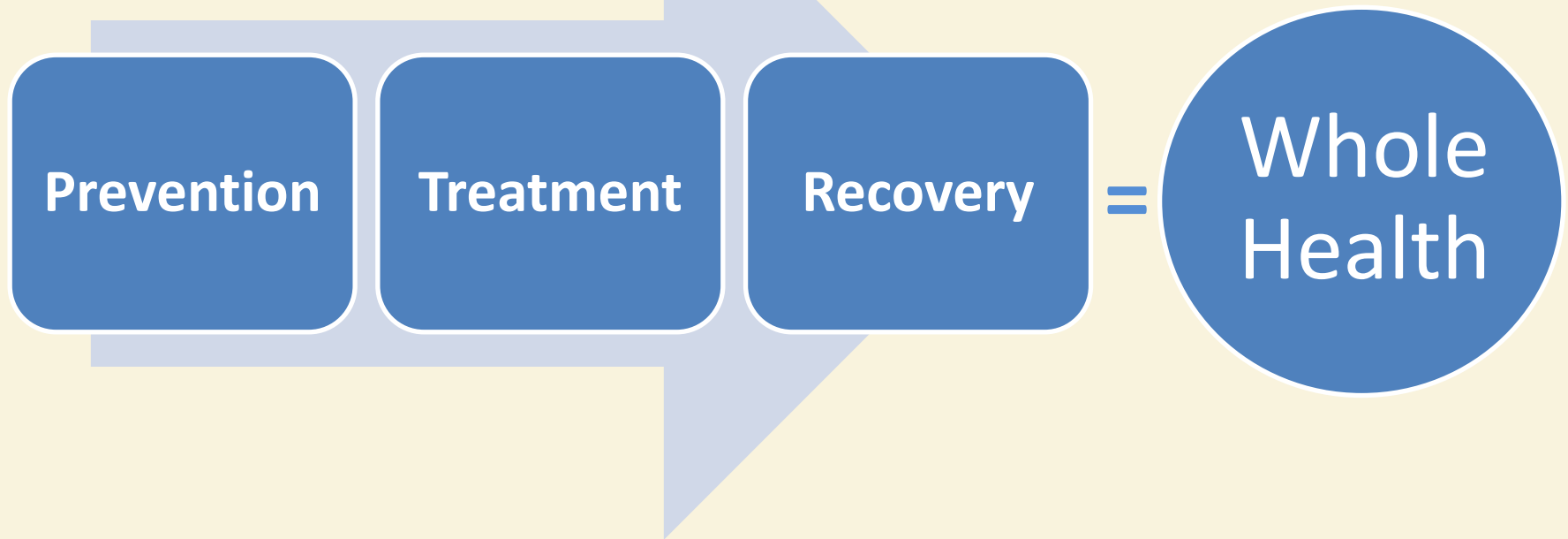


Secretary Kathleen Sebelius
U.S. Department of Health & Human Services

“We have a very real opportunity to improve – and in some cases save – the lives of millions of our friends, neighbors and family members. We have to change hearts in order to treat minds.”

Carter Center,
November 8, 2013

Behavioral Health + Physical Health = Whole Health



- BH & PH are interdependent, and whole health depends on both.
- Prevention, treatment, and recovery are essential for behavioral *and* physical health.

Prescription Drugs Abuse & Misuse: Public Awareness & Policy Initiatives



ENERGY & COMMERCE COMMITTEE

UNITED STATES HOUSE OF REPRESENTATIVES
CHAIRMAN FRED UPTON

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Health Subcommittee Kicks Off Hearing Series Examining America's Prescription Drug Abuse Crisis

June 14, 2013



Issues in Focus

The Idea Lab - Opinion: Rep. Tim Murphy: Pennsylvania is coal country
September 18, 2013 | ICYMI



USA TODAY
A GANNETT COMPANY

- NEWS
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This story is part of
HEALTH AND WELLNESS

Scary amount of candy will
be consumed on Halloween

Hospital 'cuddlers' add
extra level of infant care

Yes, men really
women's bc

More states focusing on prescription drug problem

Matthew Daneman, USA TODAY 8:59 p.m. EDT October 13, 2013

From databases to "doctor shopping" laws, states are trying to staunch painkiller abuse.

HEALTH AND WELLNESS

FDA U.S. Food and Drug Administration
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Drug Safety and Availability

Information by Drug Class

New Safety Measures Announced for Extended-release and Long-acting Opioids

[9/10/2013]

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The New York Times

Business Day

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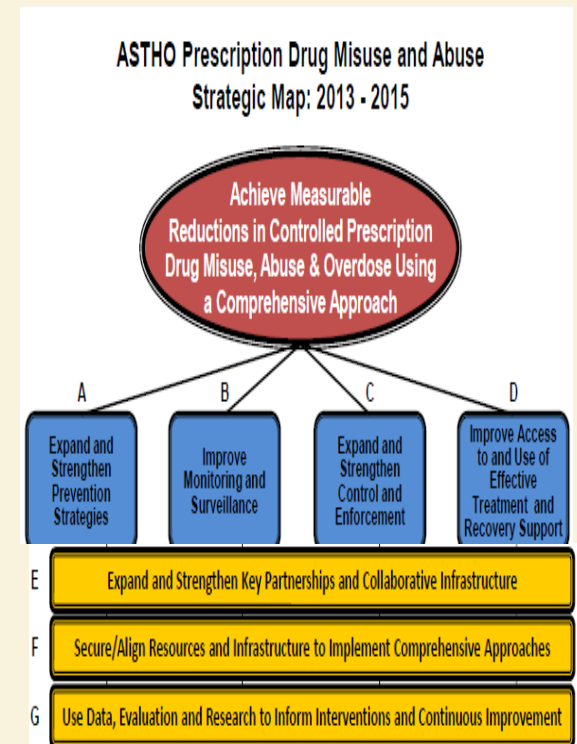
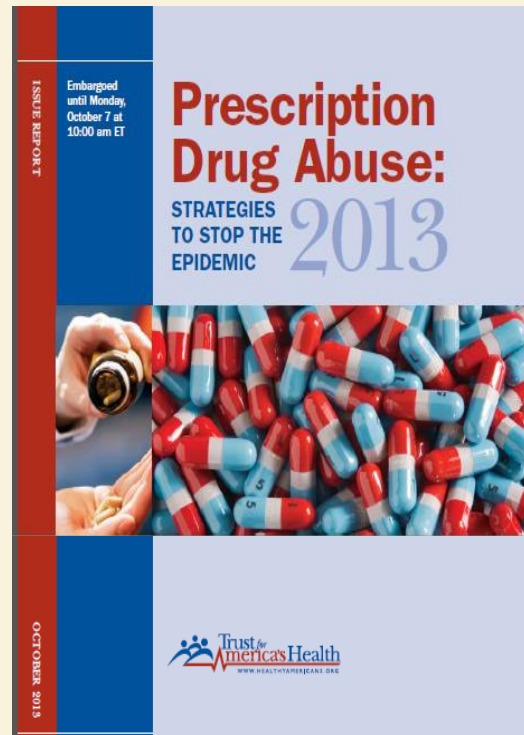
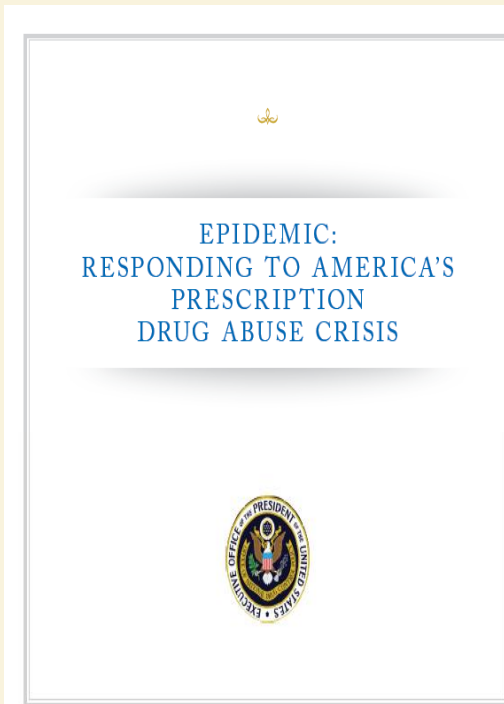
AUTOS

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F.D.A. Urging a Tighter Rein on Painkillers



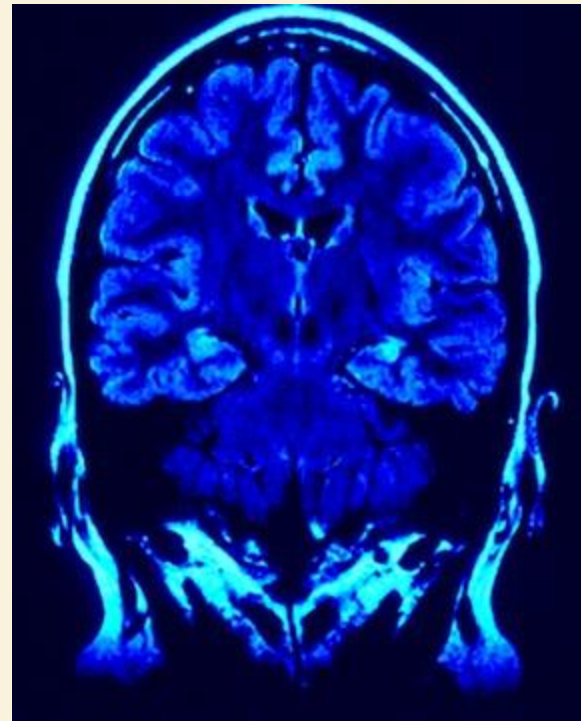
Prescription Drug Abuse & Misuse: Strategies to Stop the Epidemic



SAMHSA's Strategic Initiatives & Partnerships

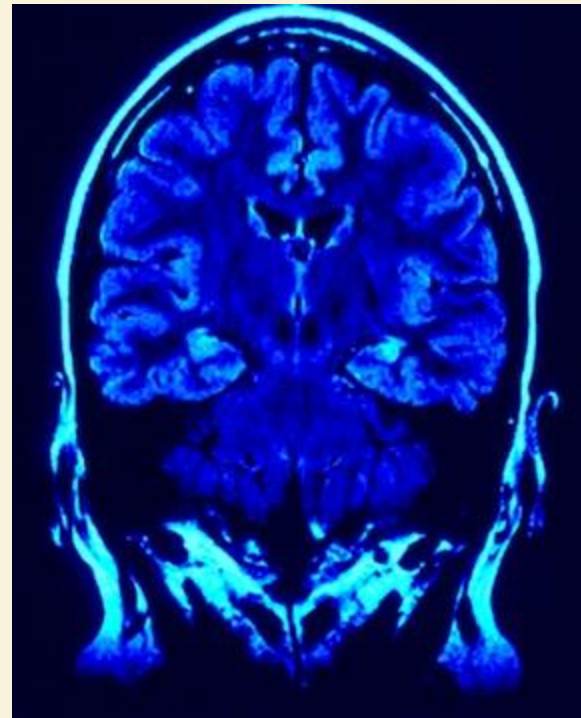
Topics

- Neurobiology
- Epidemiology
- EB Treatment
- Fostering EBPs



Topics

- Neurobiology
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- Fostering EBPs

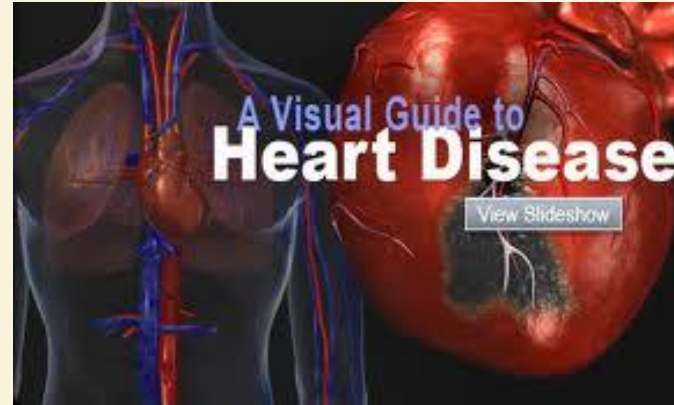


Addiction *is* a Chronic Brain Disease

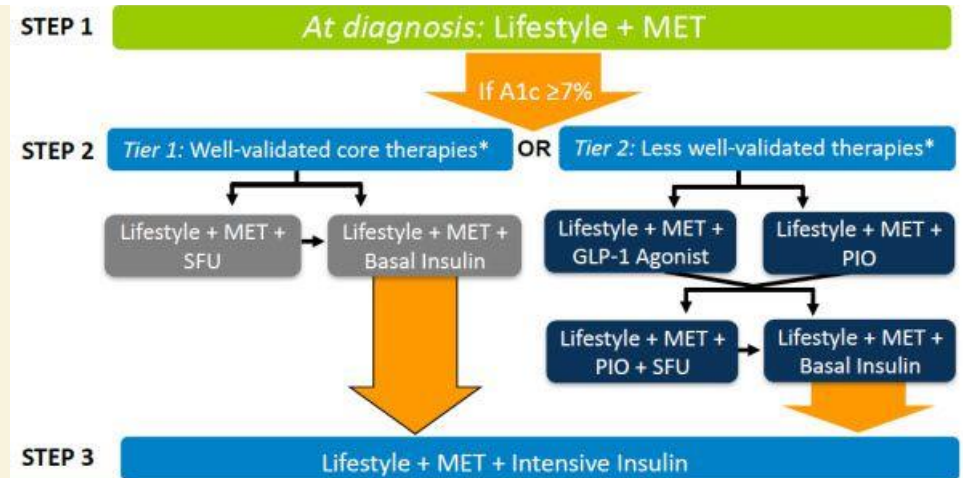
- Drug and alcohol addiction are chronic & relapsing diseases involving the brain's reward and control circuitries.
- Neuroadaptations that follow chronic drug exposure ultimately serve to impair the function of brain regions involved with motivation and self-control.
- Substance dependence disorders have relapse rates similar to those of hypertension, diabetes, and asthma.

Addiction *is* like other chronic diseases...

- It changes biology
- It is preventable
- It is treatable



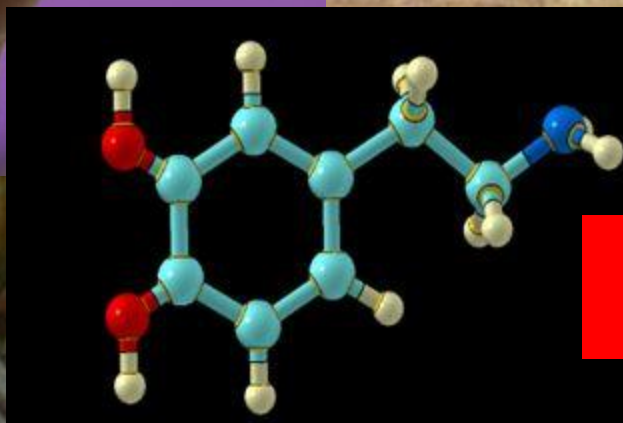
Diabetes Treatment Strategies: Lifestyle + Medication



Movement



Motivation



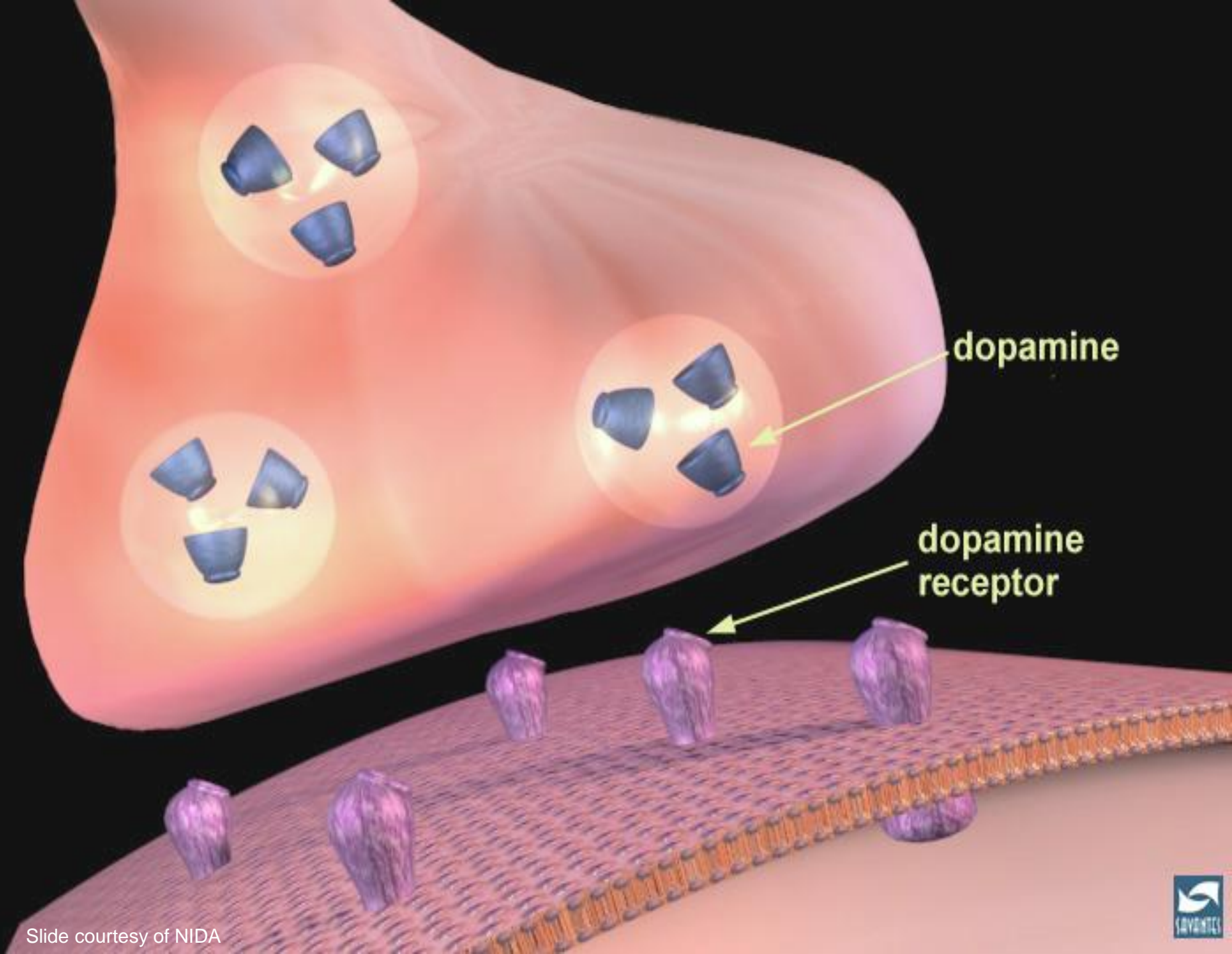
Dopamine

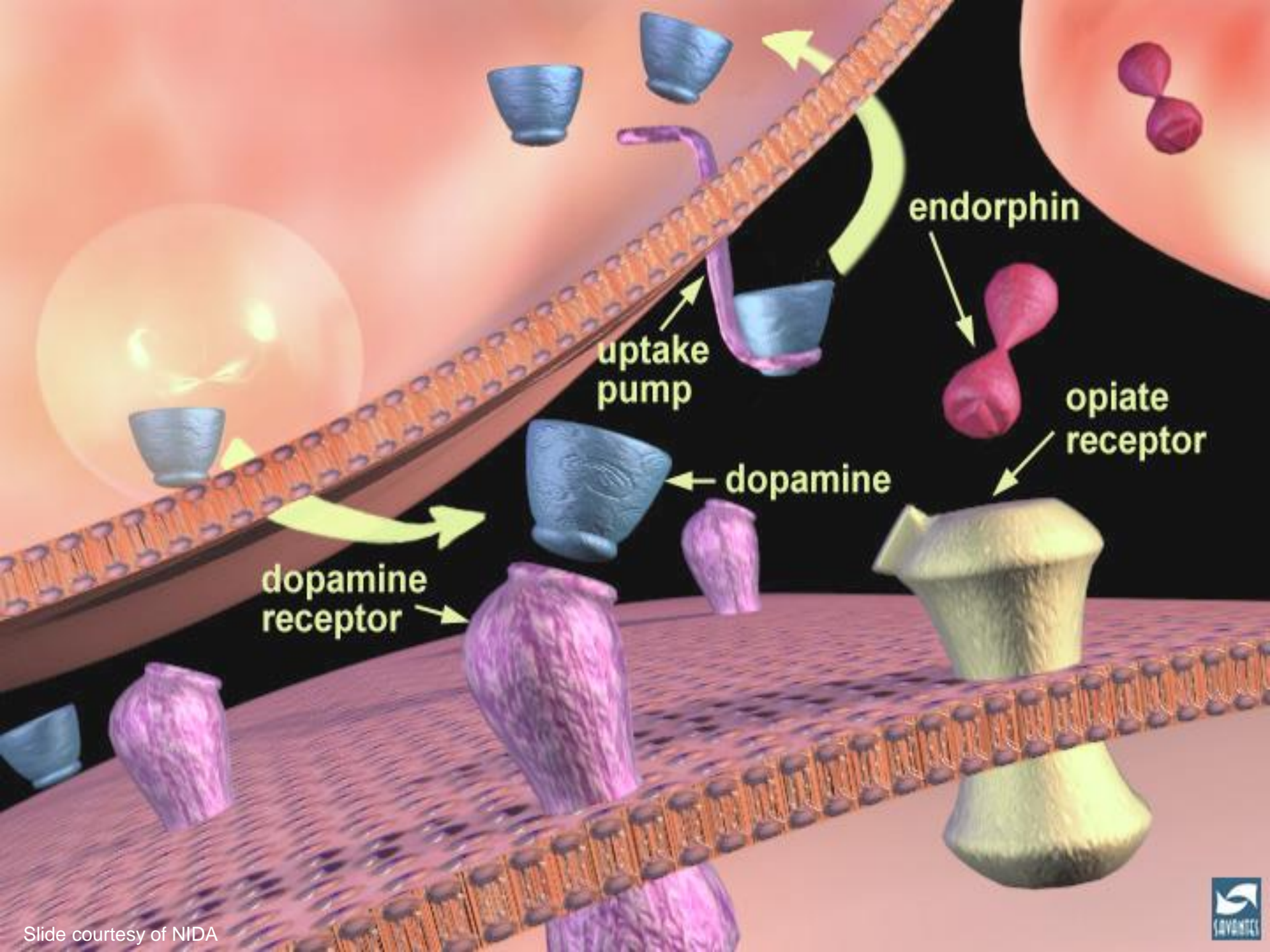


Addiction

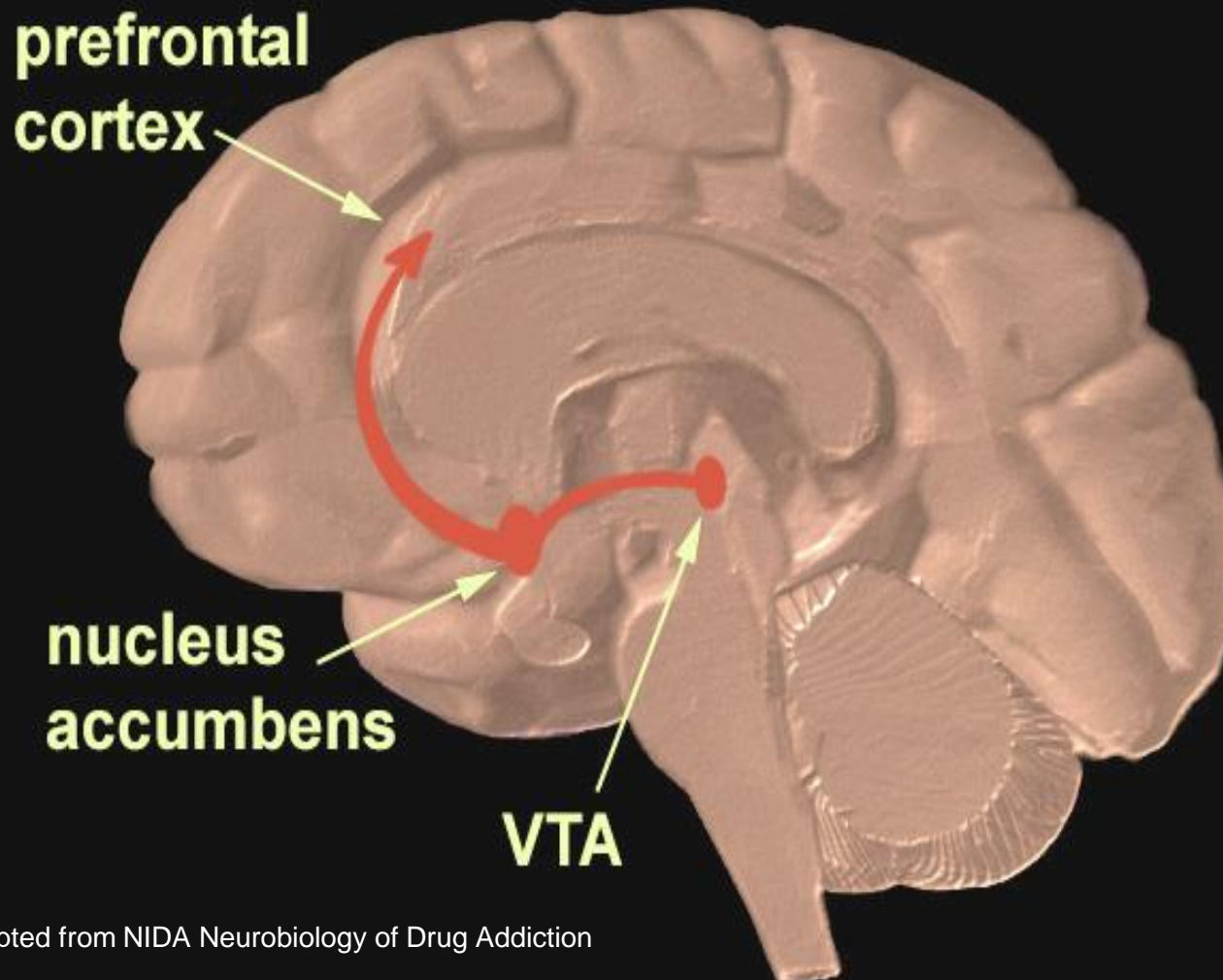


Reward & well-being





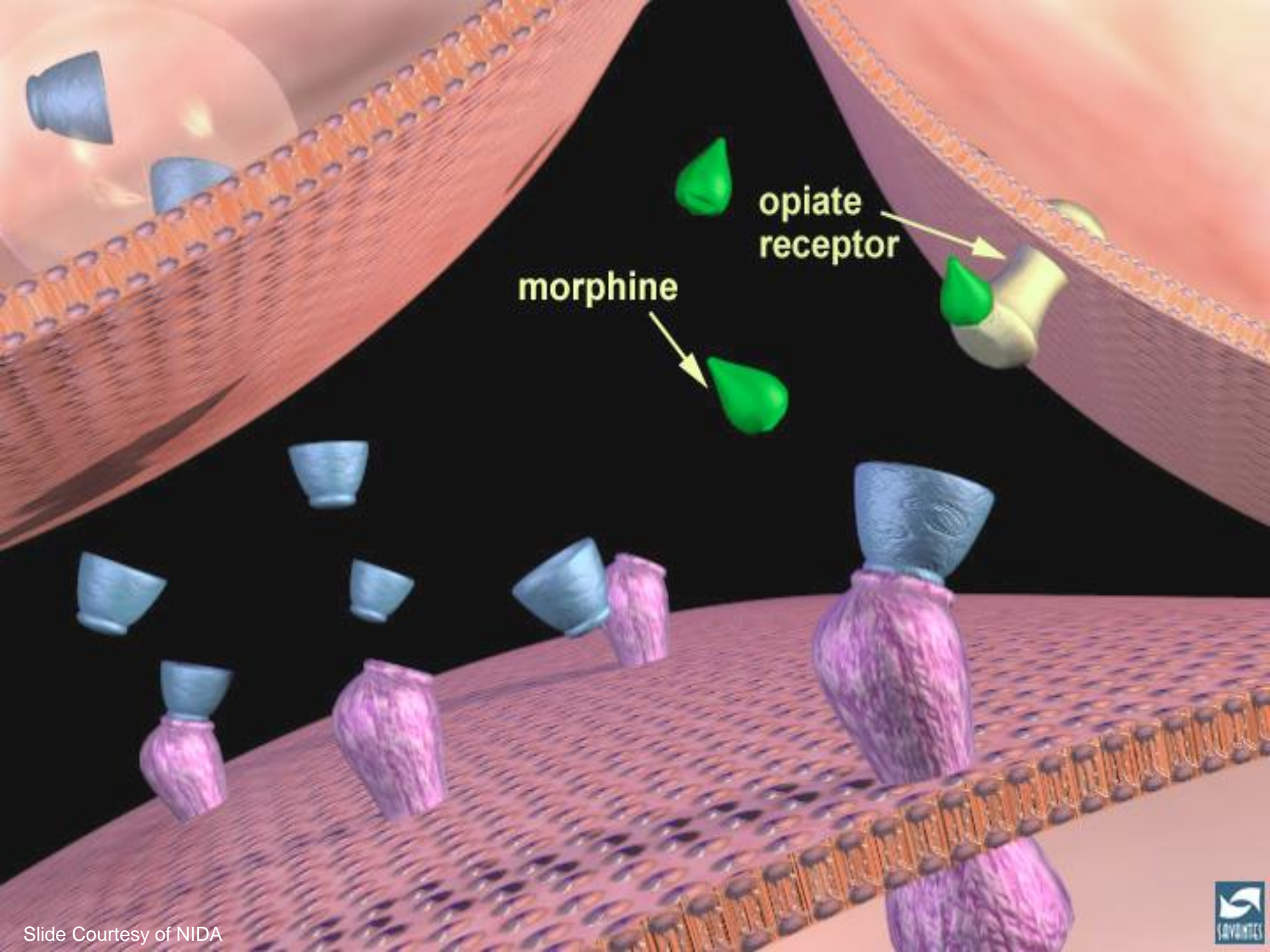
Endogenous Reward Pathway: Example



Adapted from NIDA Neurobiology of Drug Addiction

Dopamine & Exogenous Opioids: Hypercharging the Brain Reward Pathway

- ➔ Nearly all drugs of abuse increase dopamine neurotransmission, and in doing so increase activity in the brain reward pathway.
 - Many of these drugs activate the brain reward pathway *more effectively* – and for longer periods of time – than endogenous molecules, and consequently have an intrinsic risk of abuse.



morphine

**opiate
receptor**

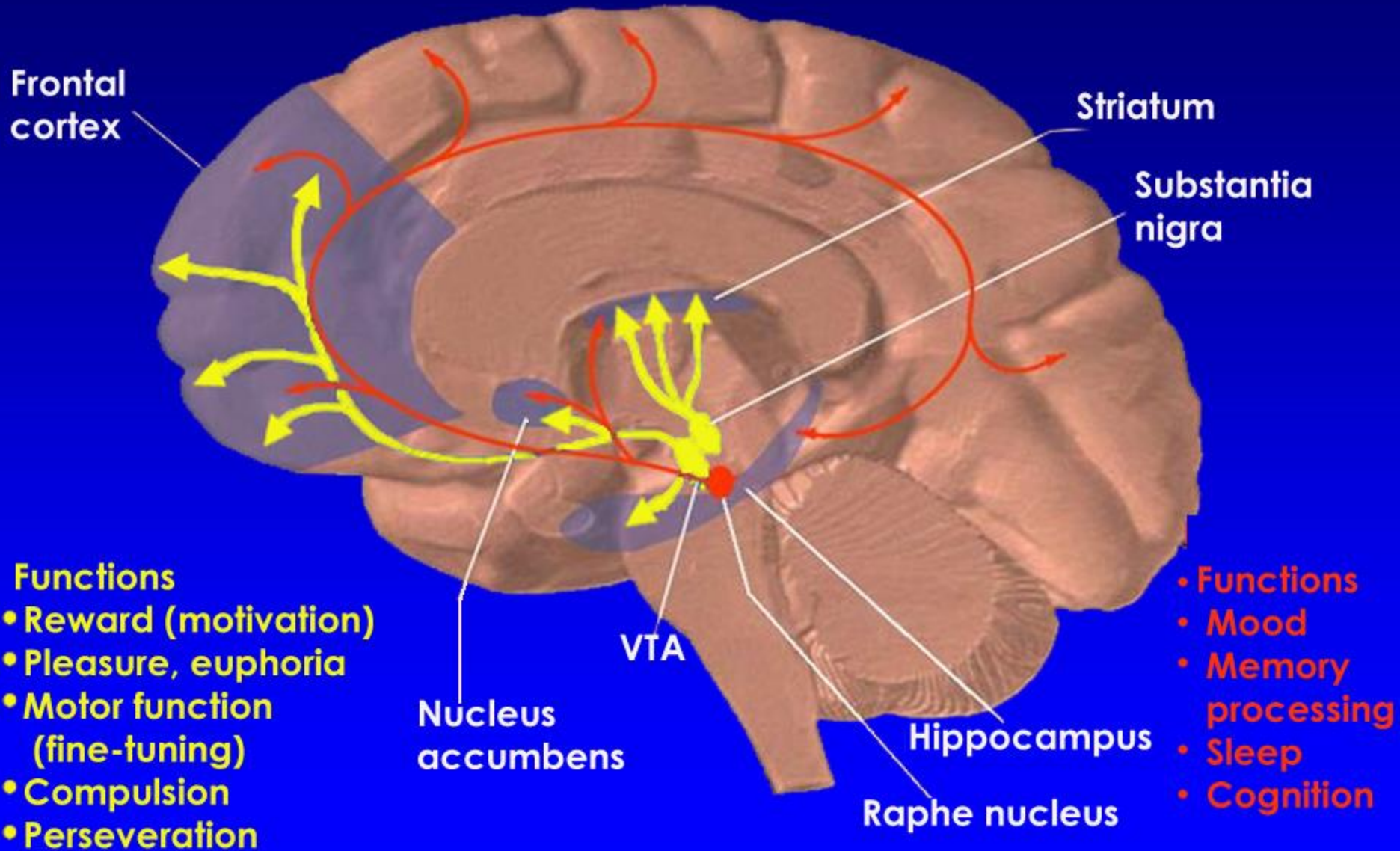
Other Neurotransmitter Systems



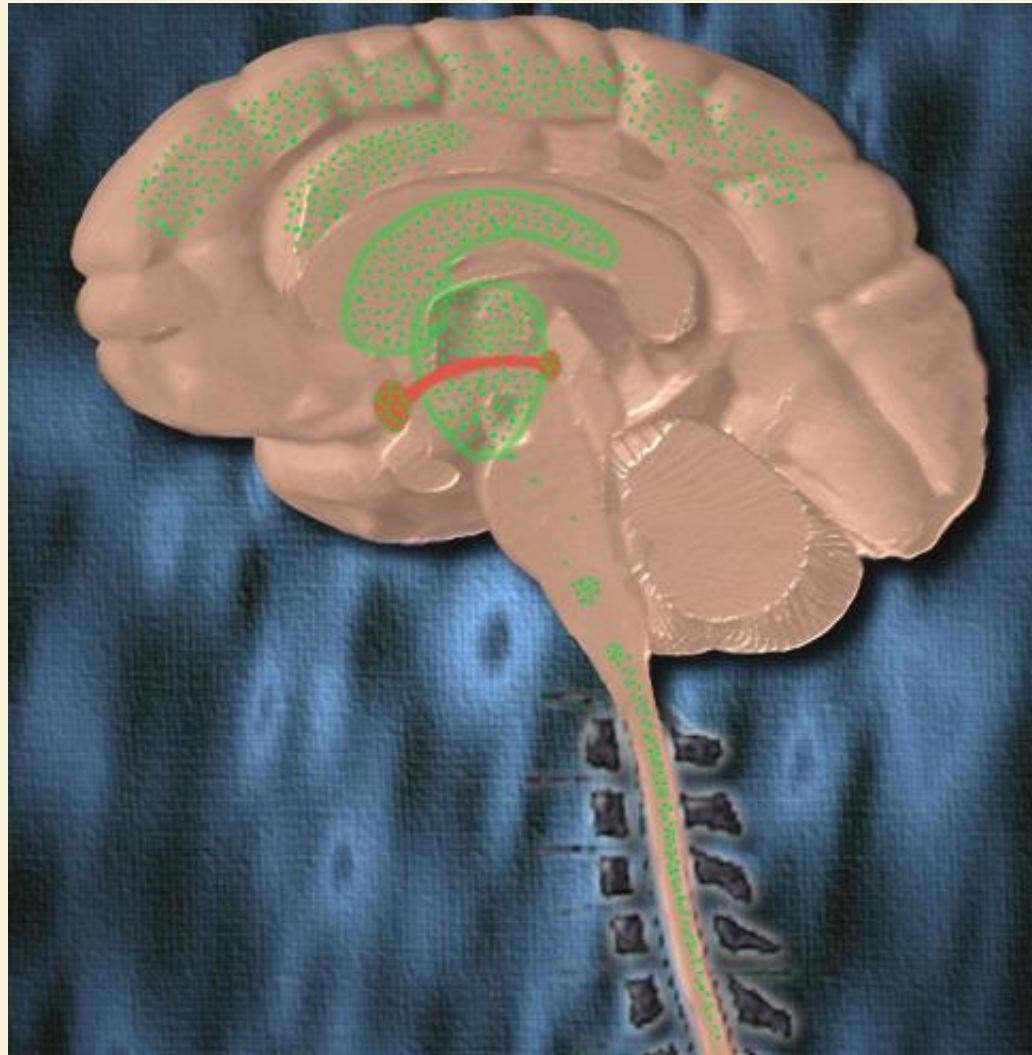
- Scientific research has shown that other neurotransmitter systems are also affected:
- Serotonin: Regulates mood, sleep, etc.
 - Glutamate: Regulates learning and memory, etc.

Dopamine Pathways

Serotonin Pathways




Opioid Binding Sites



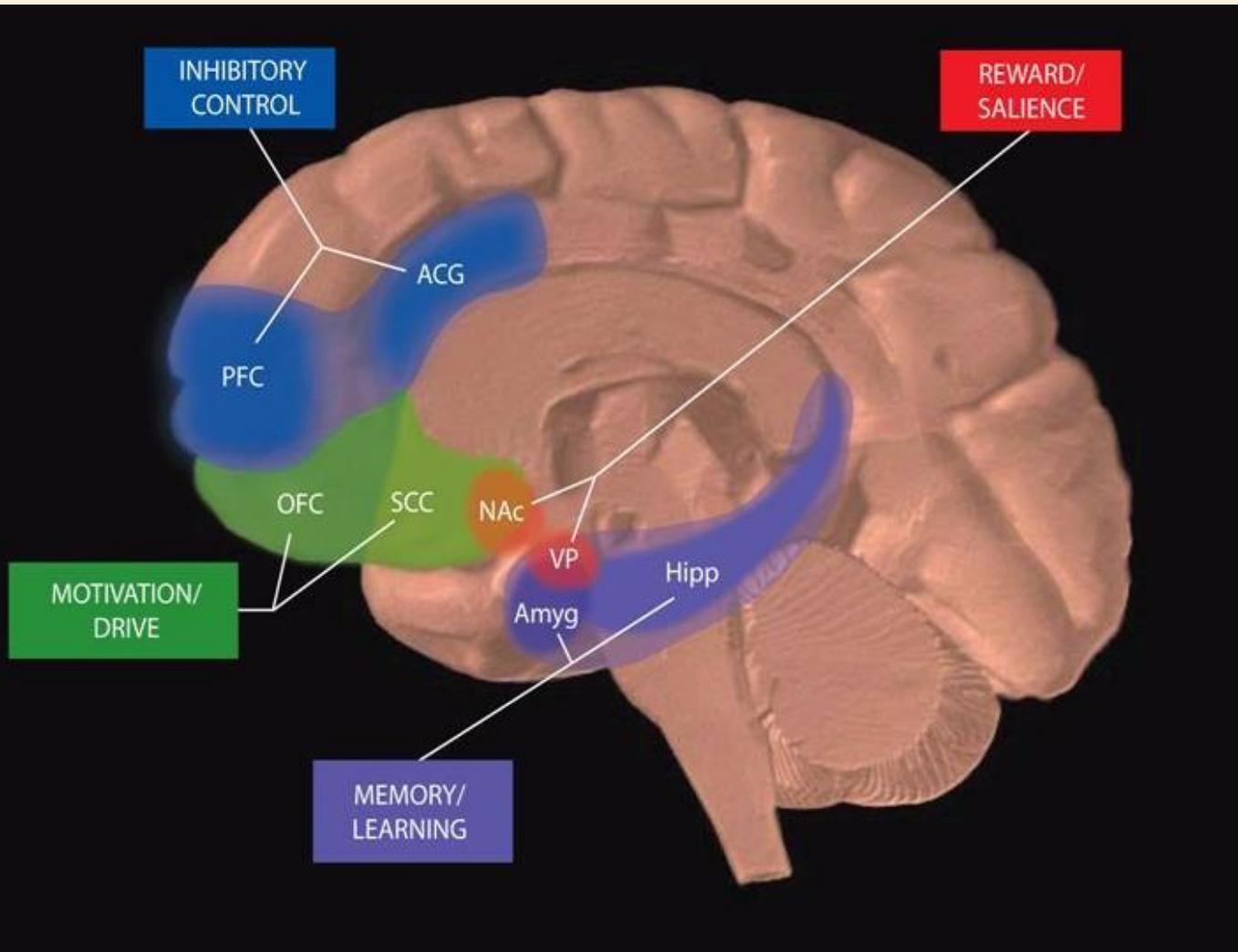
Prolonged Drug Use

- Changes the brain in fundamental ways that reinforce drug taking and lead to addiction.
 - Structural & functional changes
 - Can impair mental & motor functions (e.g., memory deficits, slowed motor reactions)
- Changes are difficult to un-do and may be long lasting.
- Successful prevention efforts & early intervention are key to avoid/mitigate these neural changes.

One Size Does Not Fit All: Addiction

- 
- Addiction involves the complex interaction of multiple, individual-specific factors including a person's inherent biology as well as their environment, experience, and age.
 - Gene-environment interactions
 - Developmental stages
 - Mental health & stressful life events including physical & sexual abuse
 - Evidence that social factors and life experiences influence dopamine transmission pathway
 - Co-morbidities

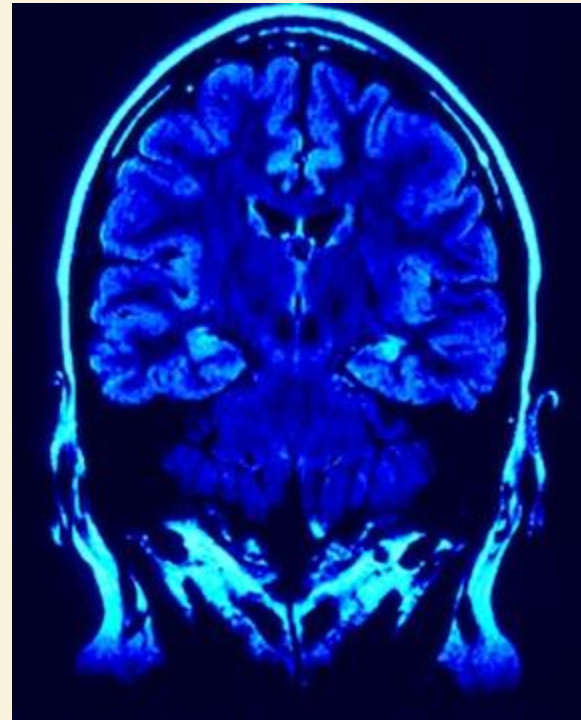
Addiction: Neurobiological Interdependencies



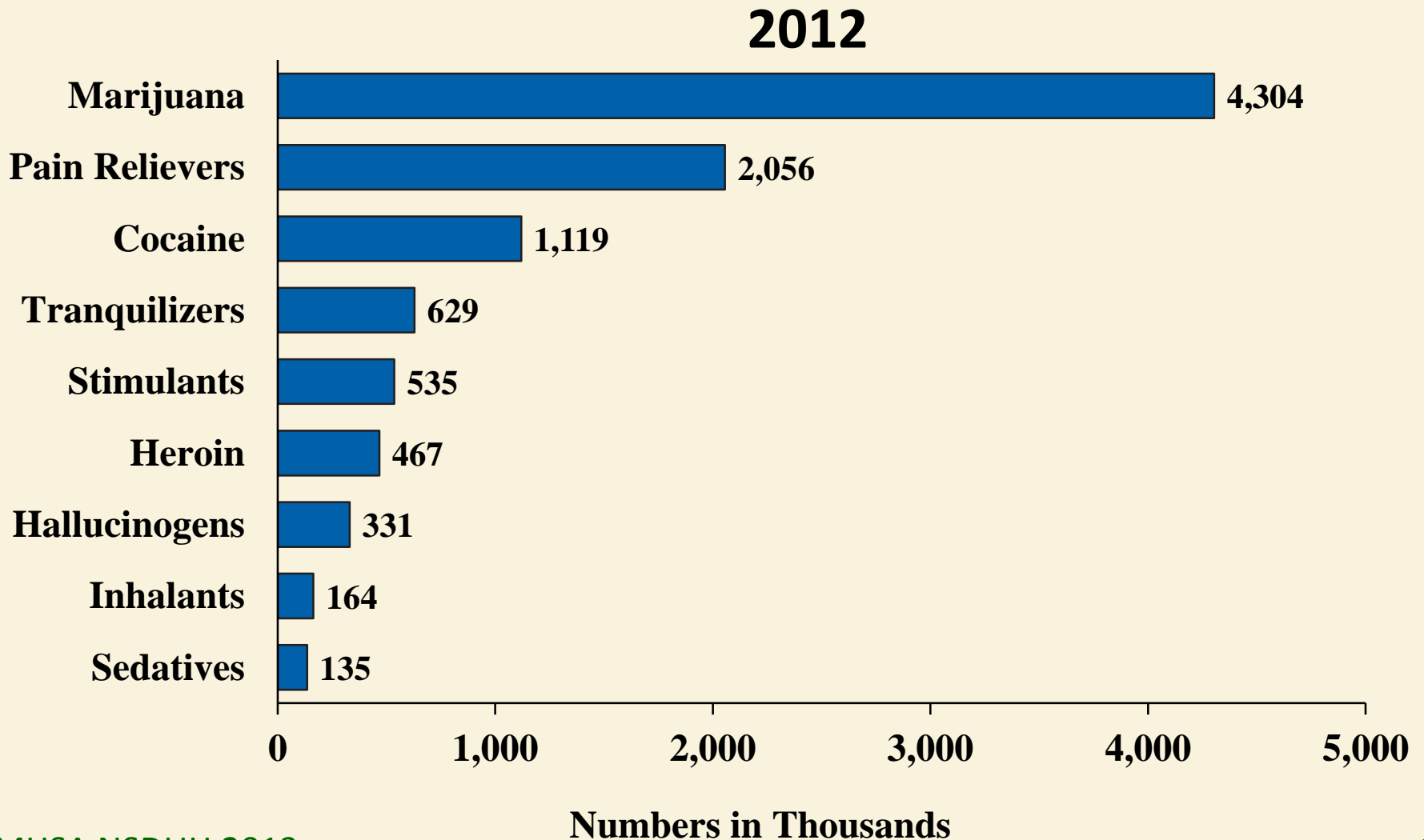
→ All of these brain regions must be considered in developing strategies to effectively treat addiction.

Topics

- Neurobiology
- Epidemiology
- Treatment
- Fostering EBPs

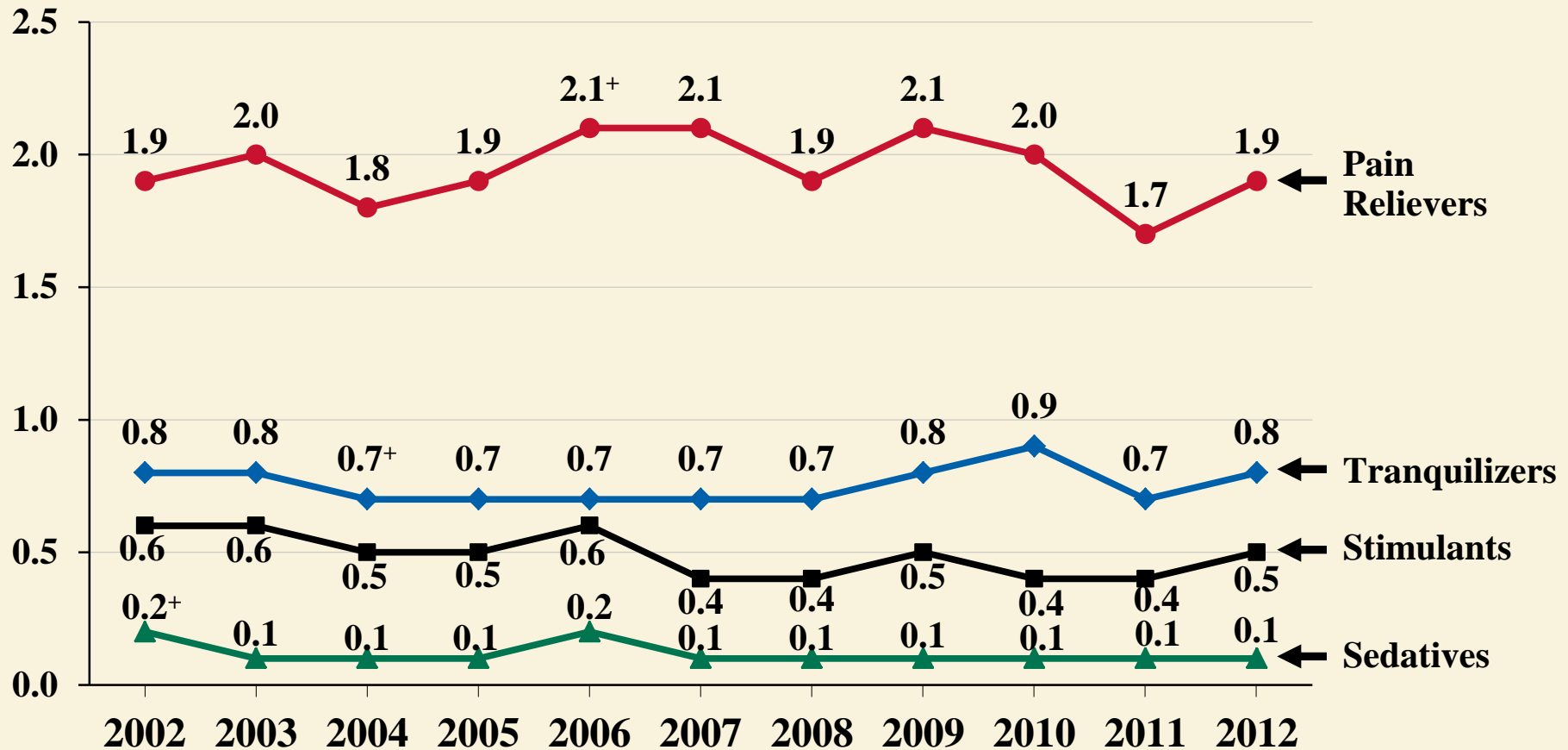


Specific Illicit Drug Dependence or Abuse in the Past Year among Persons ≥ 12 years old



Past Month Nonmedical Use of Types of Psychotherapeutic Drugs among Persons ≥ 12 years old

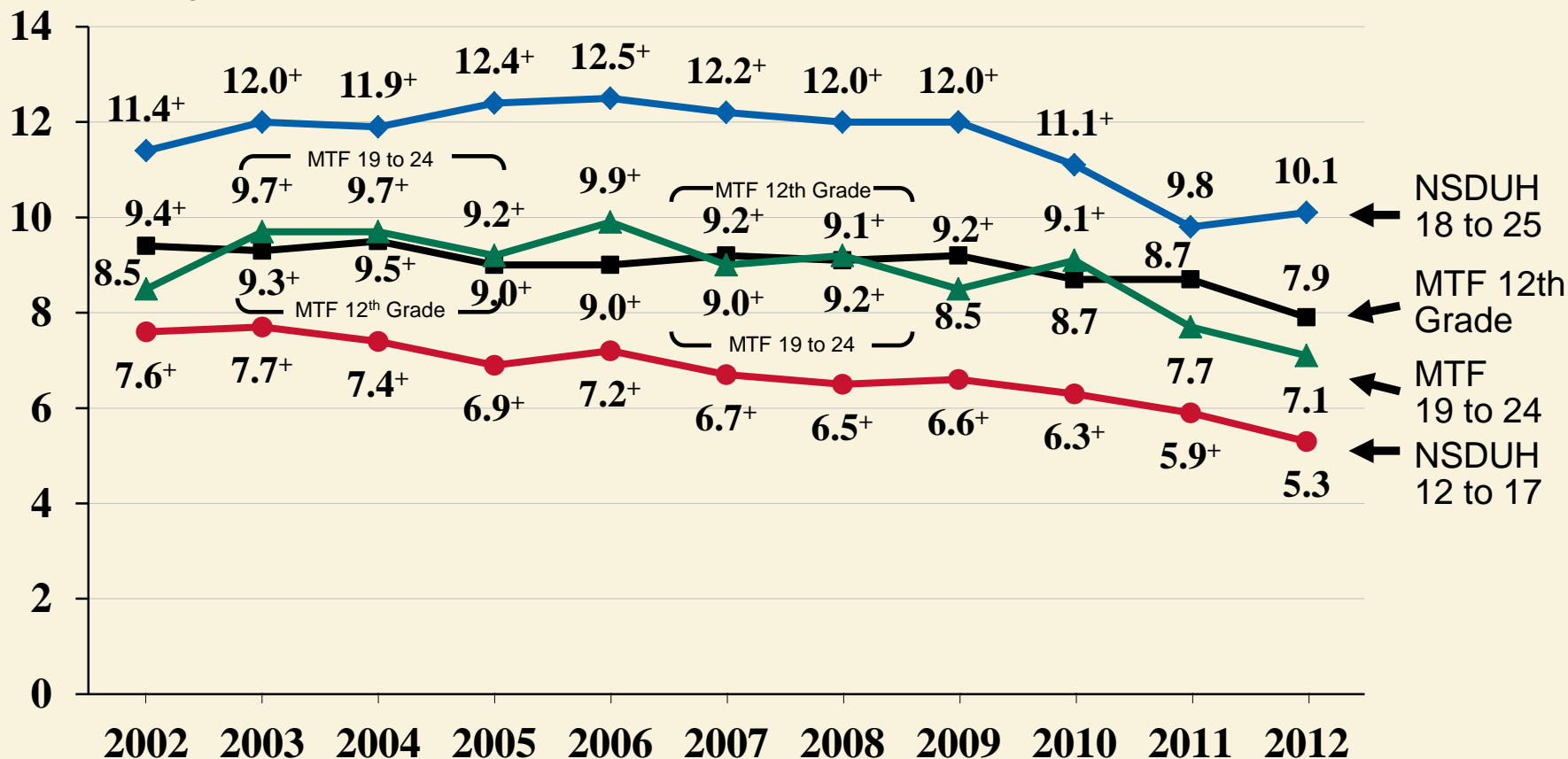
Percent Using in Past Month



⁺ Difference between this estimate and the 2012 estimate is statistically significant at the .05 level.

Past Year Nonmedical Pain Reliever Use among Youths and Young Adults in NSDUH and MTF

Percent Using in Past Year



MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health.

Note: Data for MTF are for "narcotics other than heroin."

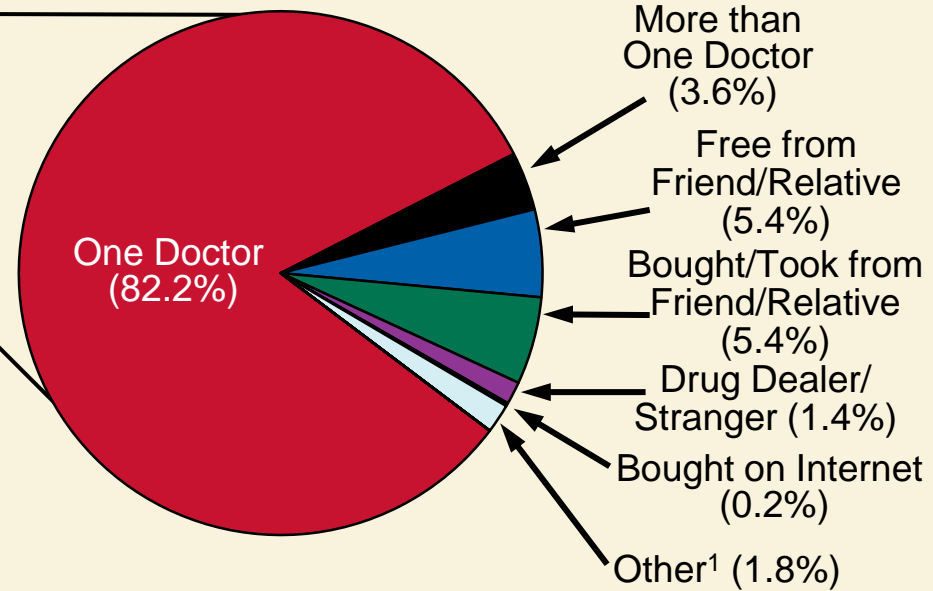
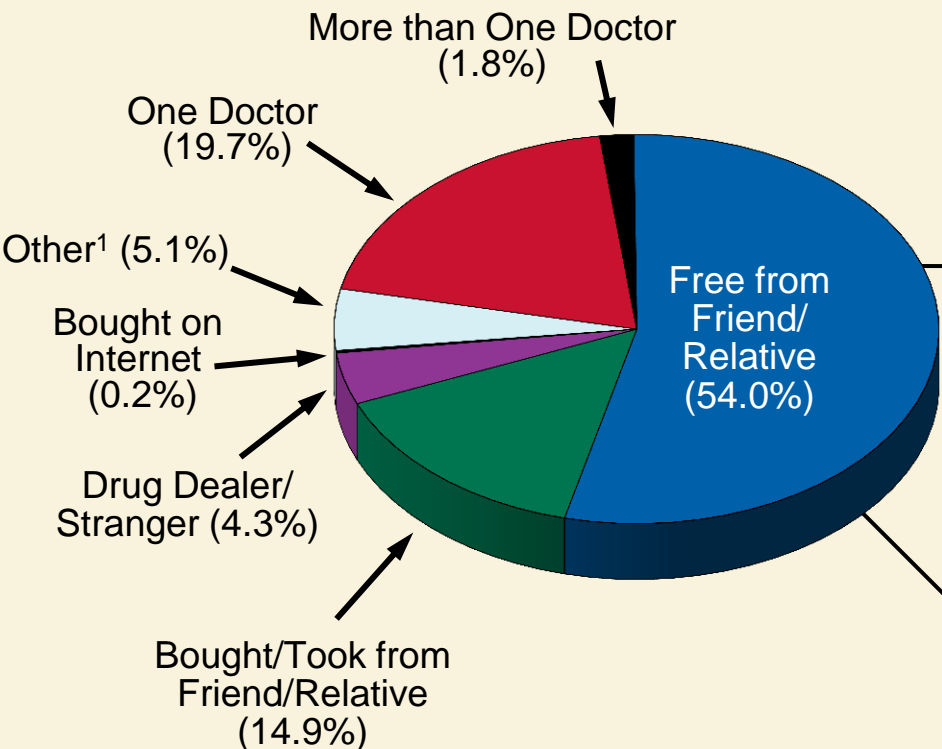
+ Difference between this estimate and the 2012 estimate is statistically significant at the .05 level.

Source Where Pain Relievers Were Obtained for Most Recent Nonmedical Use among Past Year Users

Source Where User Obtained

2011-2012, ≥12 years old

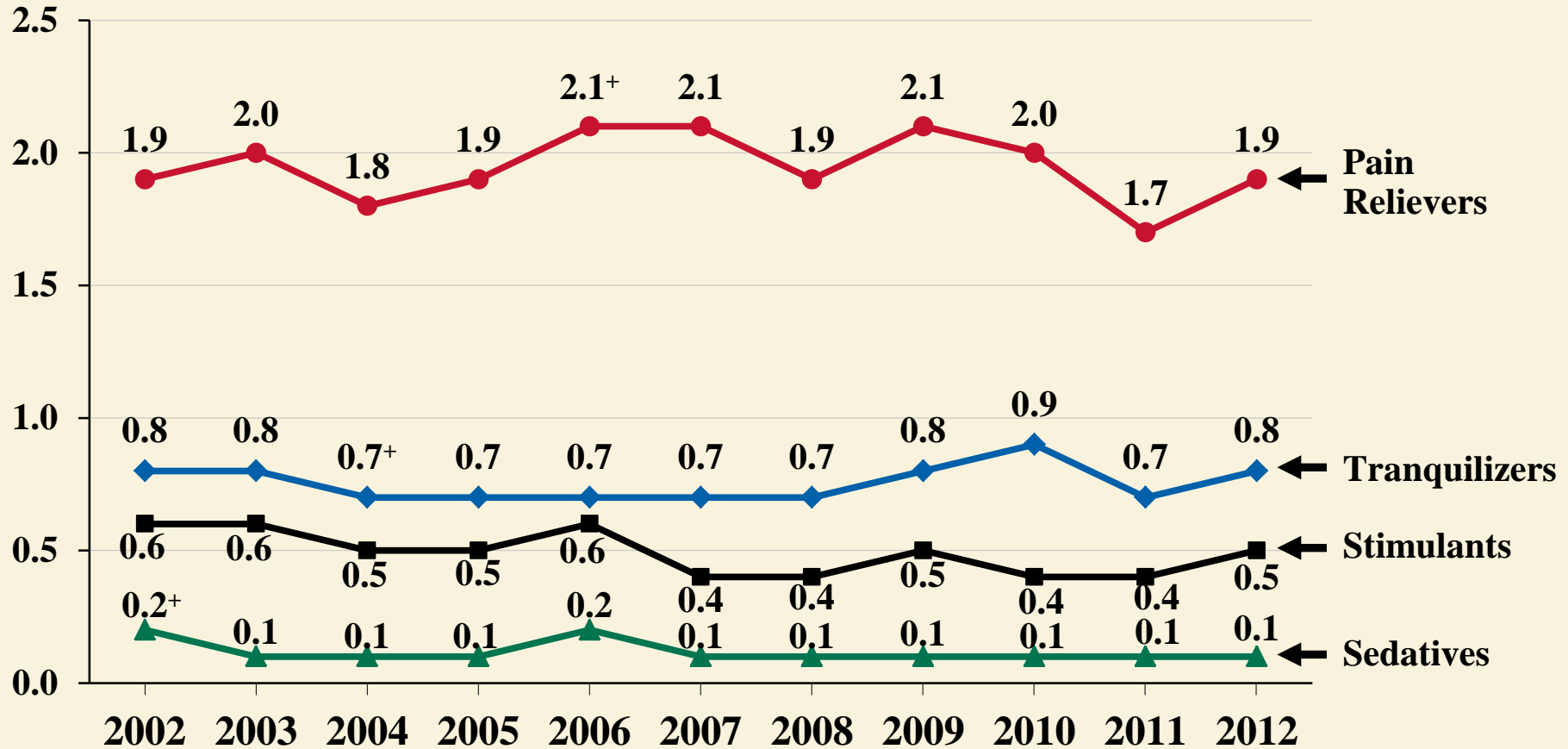
Source Where Friend/Relative Obtained



¹ The Other category includes the sources "Wrote Fake Prescription," "Stole from Doctor's Office/Clinic/Hospital/Pharmacy," and "Some Other Way."

Past Month Nonmedical Use of Types of Psychotherapeutic Drugs among Persons ≥ 12 years old

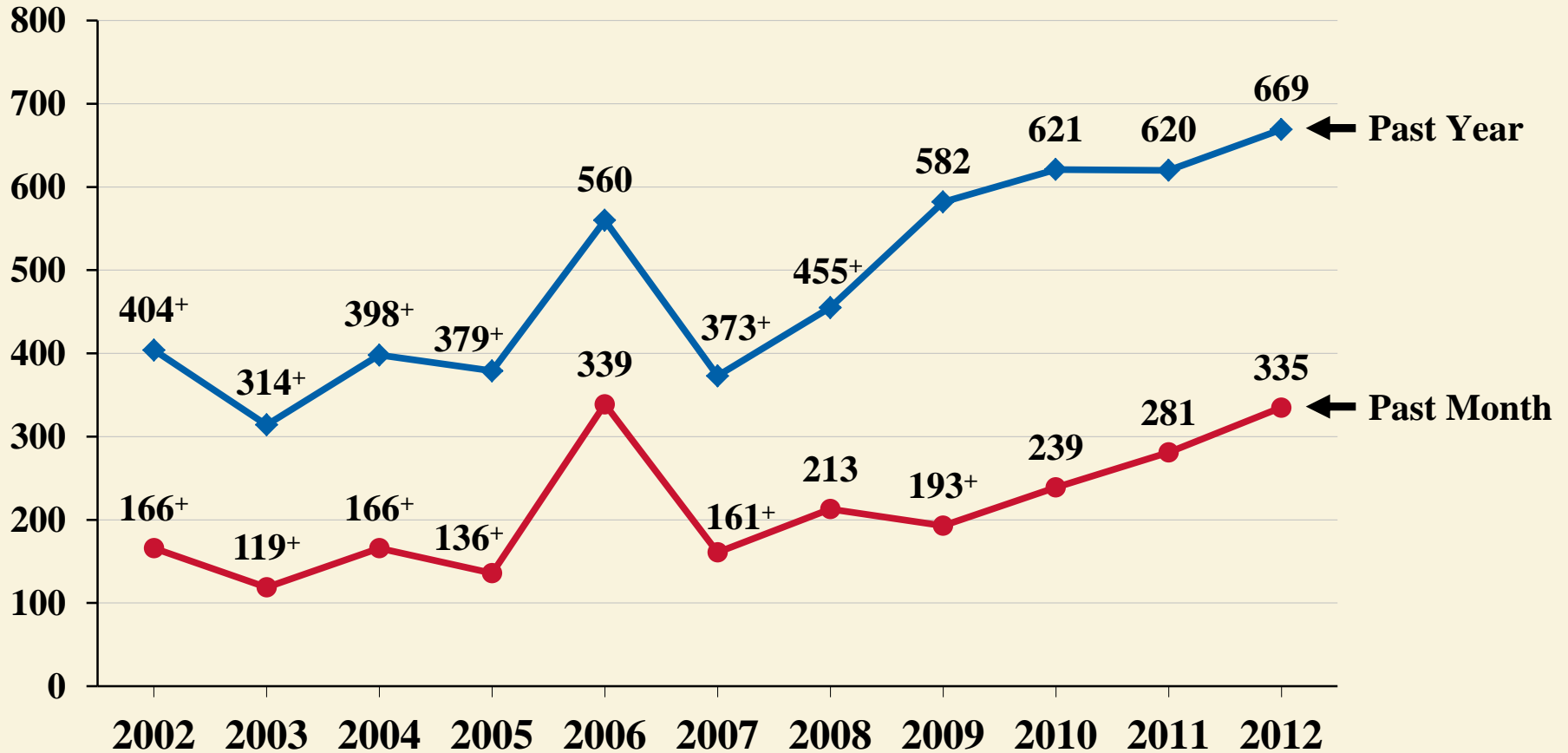
Percent Using in Past Month



⁺ Difference between this estimate and the 2012 estimate is statistically significant at the .05 level.

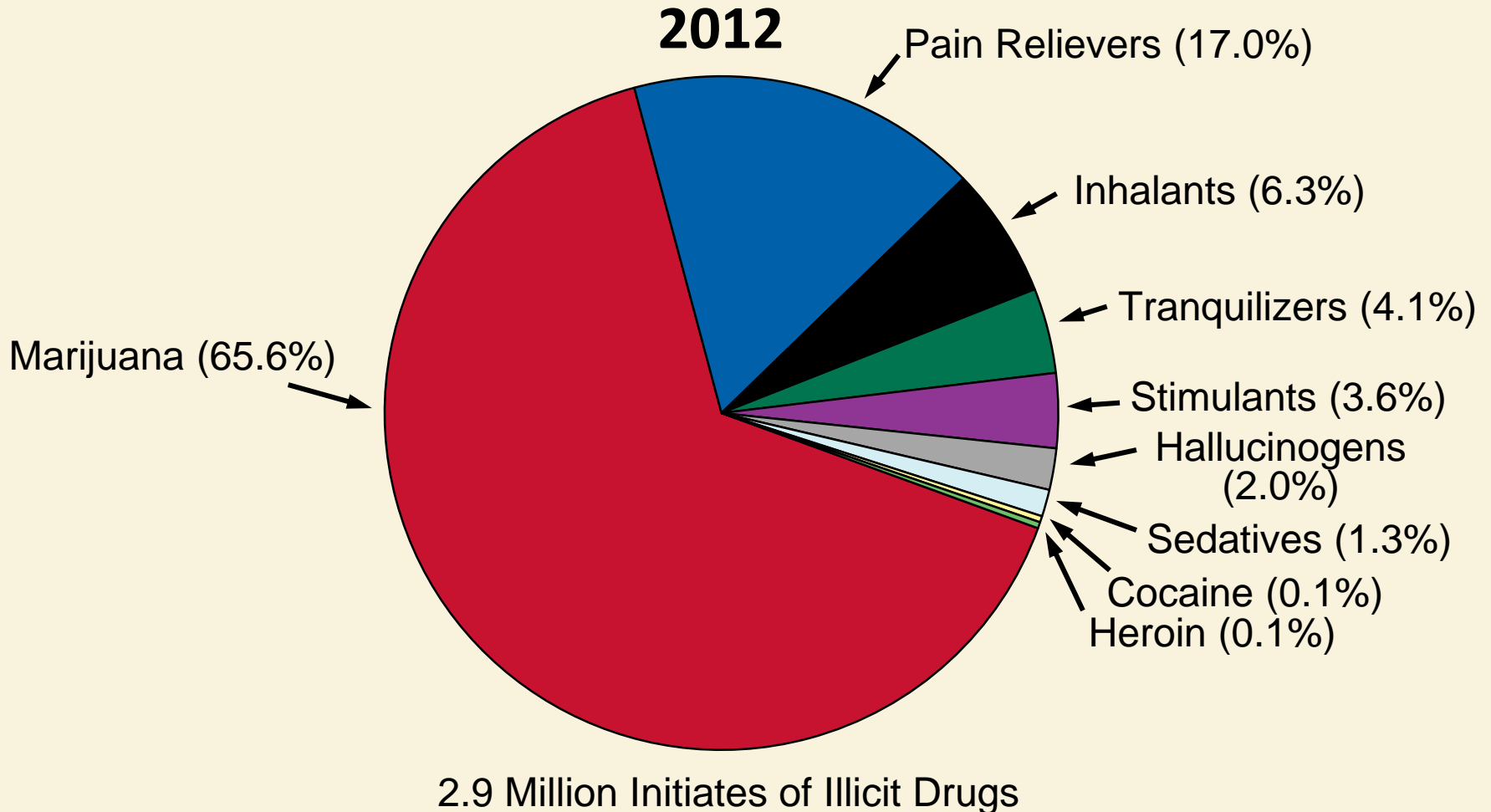
Past Month and Past Year Heroin Use among Persons ≥ 12 years old

Numbers in Thousands



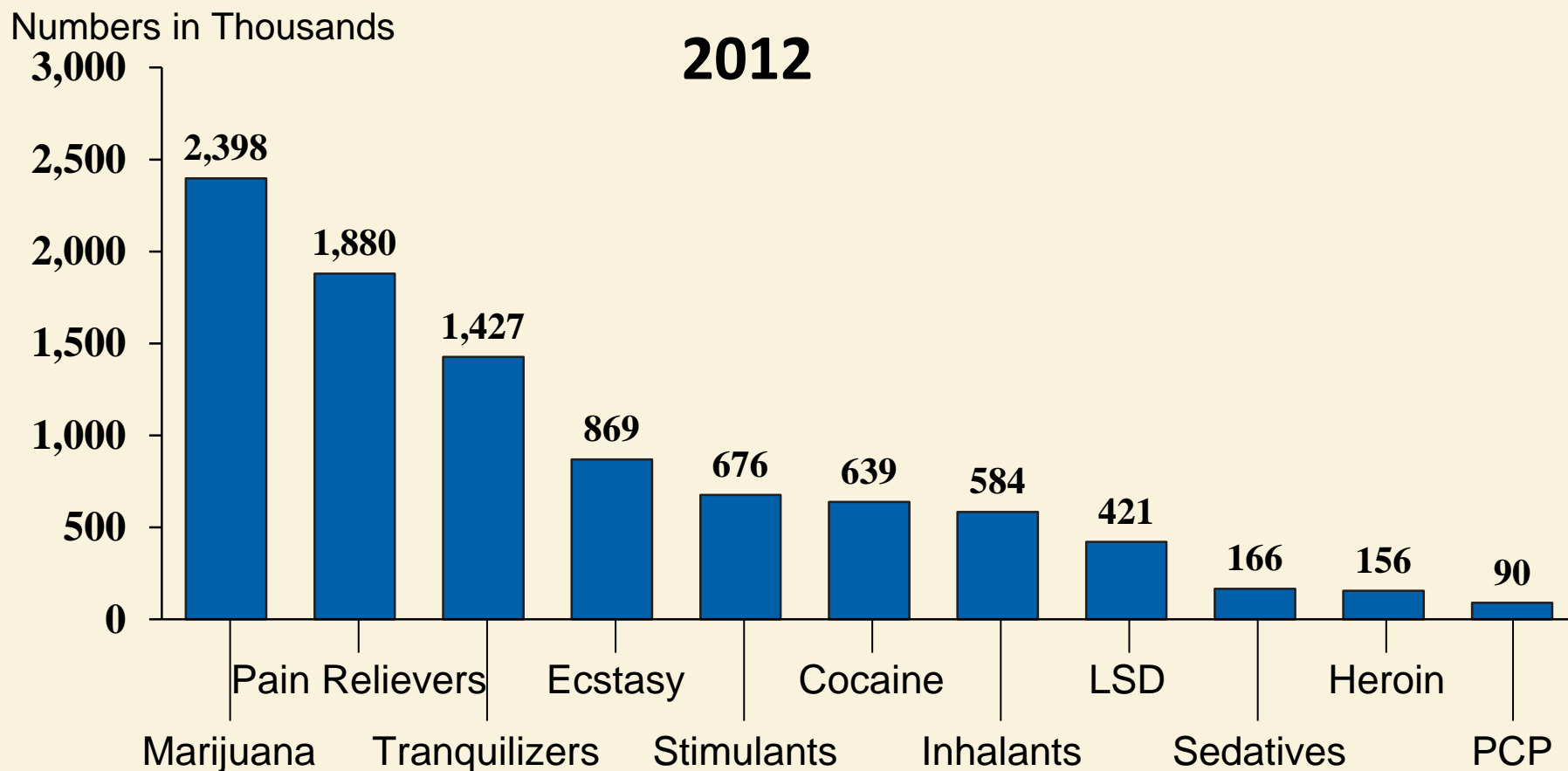
⁺ Difference between this estimate and the 2012 estimate is statistically significant at the .05 level.

First Specific Drug Associated with Initiation of Illicit Drug Use among Past Year Illicit Drug Initiates ≥ 12



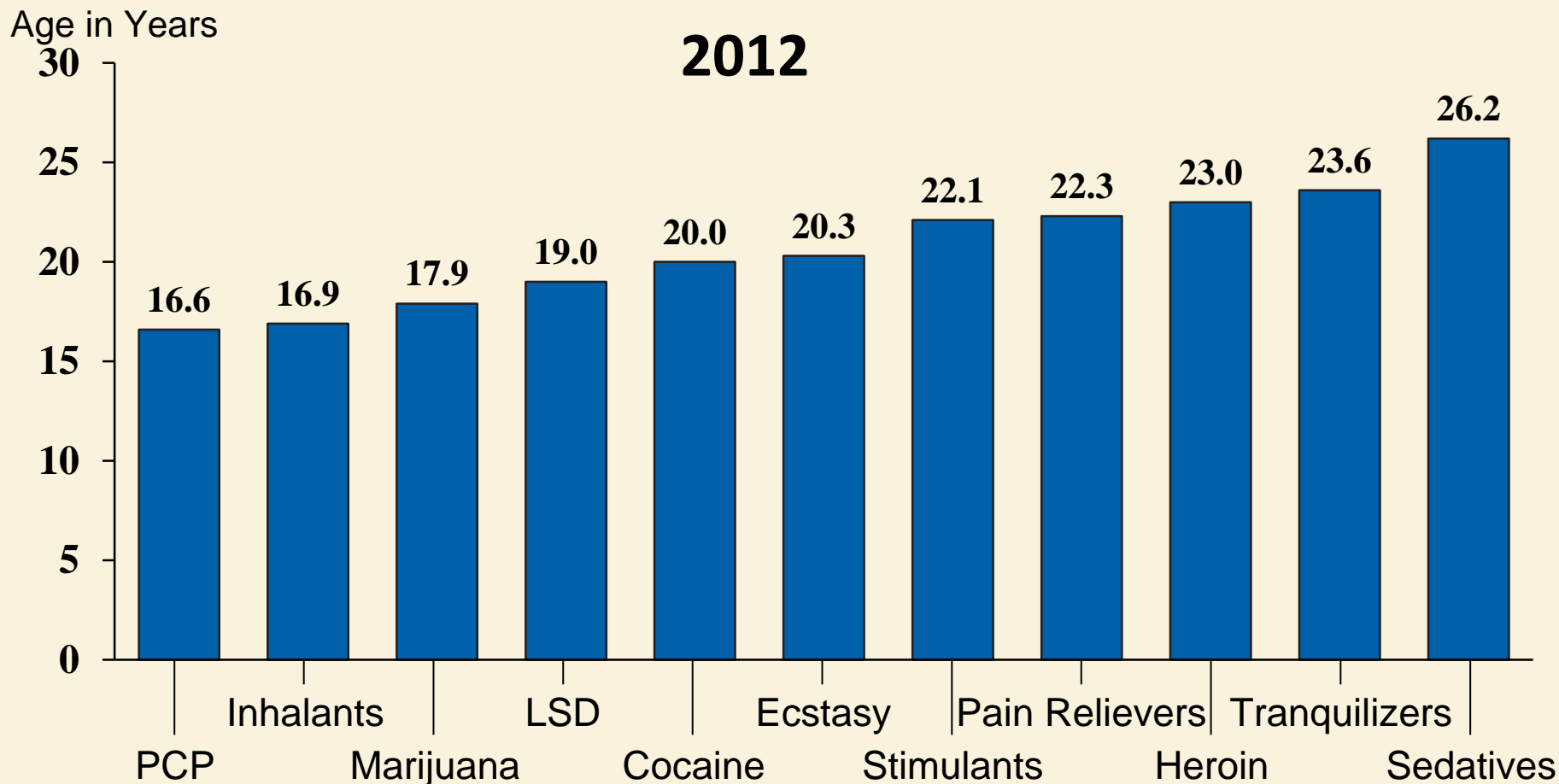
Note: The percentages do not add to 100 percent due to rounding or because a small number of respondents initiated multiple drugs on the same day. The first specific drug refers to the one that was used on the occasion of first-time use of any illicit drug.

Past Year Initiates of Specific Illicit Drugs among Persons ≥ 12 years old



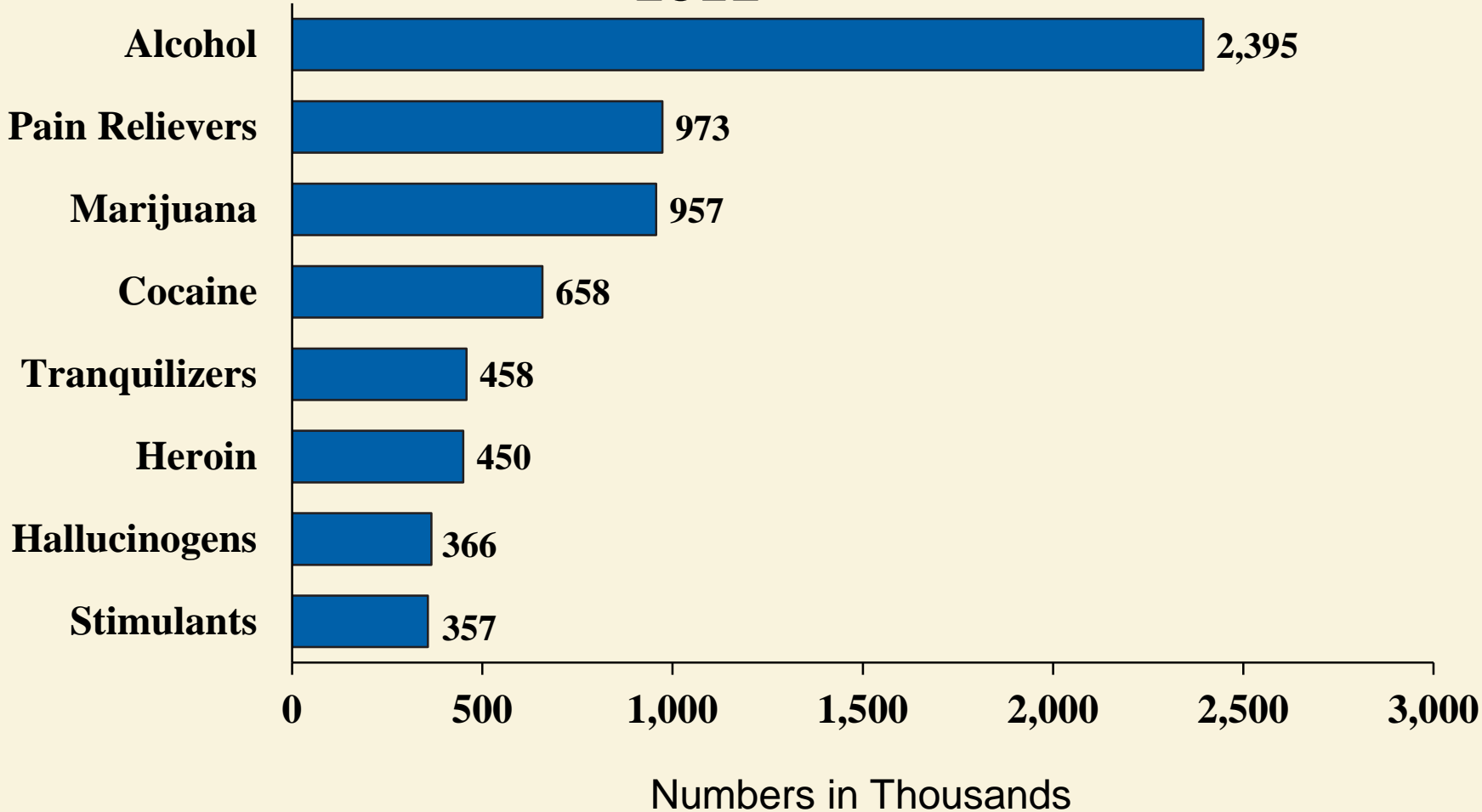
Note: Numbers refer to persons who used a specific drug for the first time in the past year, regardless of whether initiation of other drug use occurred prior to the past year.

Mean Age at First Use for Specific Illicit Drugs among Past Year Initiates Aged 12 to 49



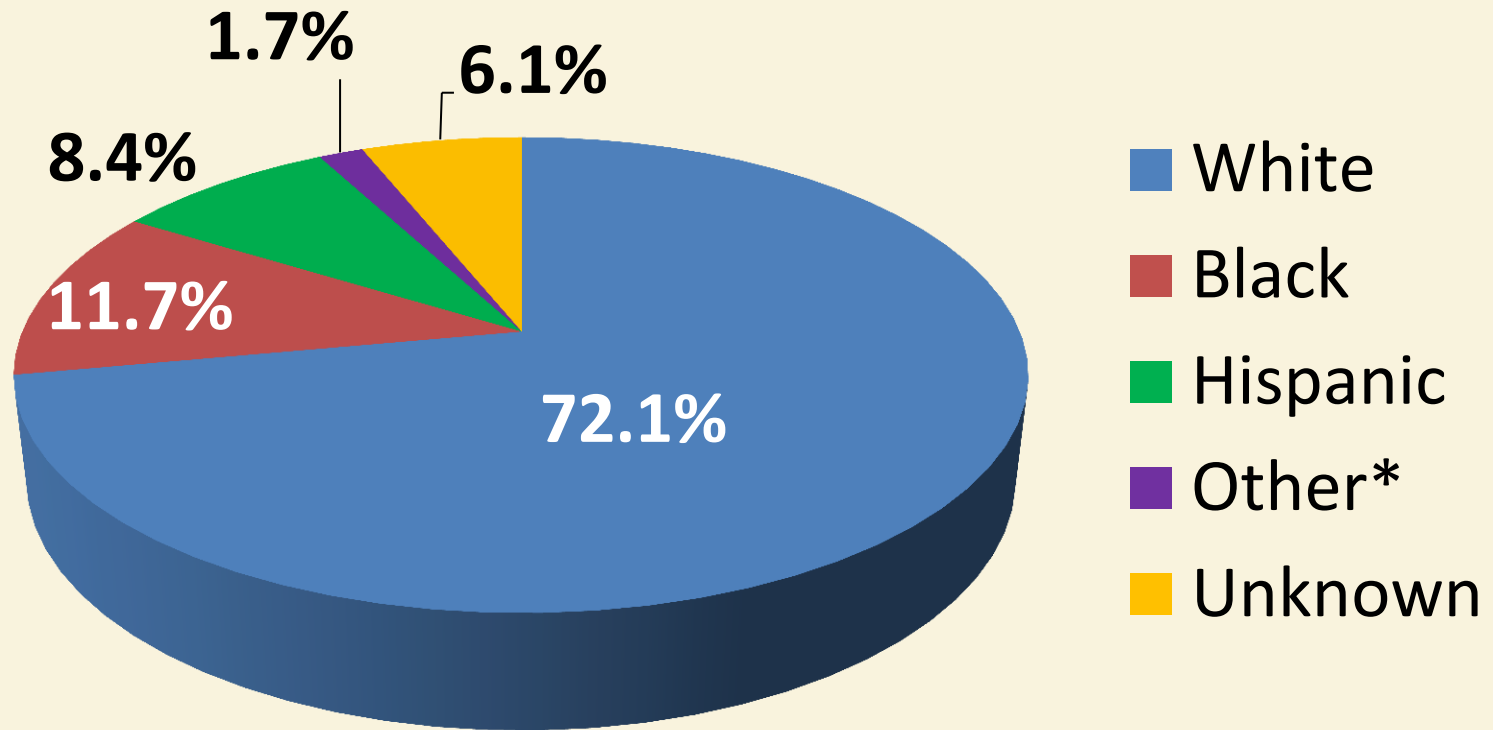
Substances for Which Most Recent Treatment Was Received in the Past Year among Persons ≥ 12 years old

2012



Percentage of ED visits involving nonmedical use of pharmaceuticals

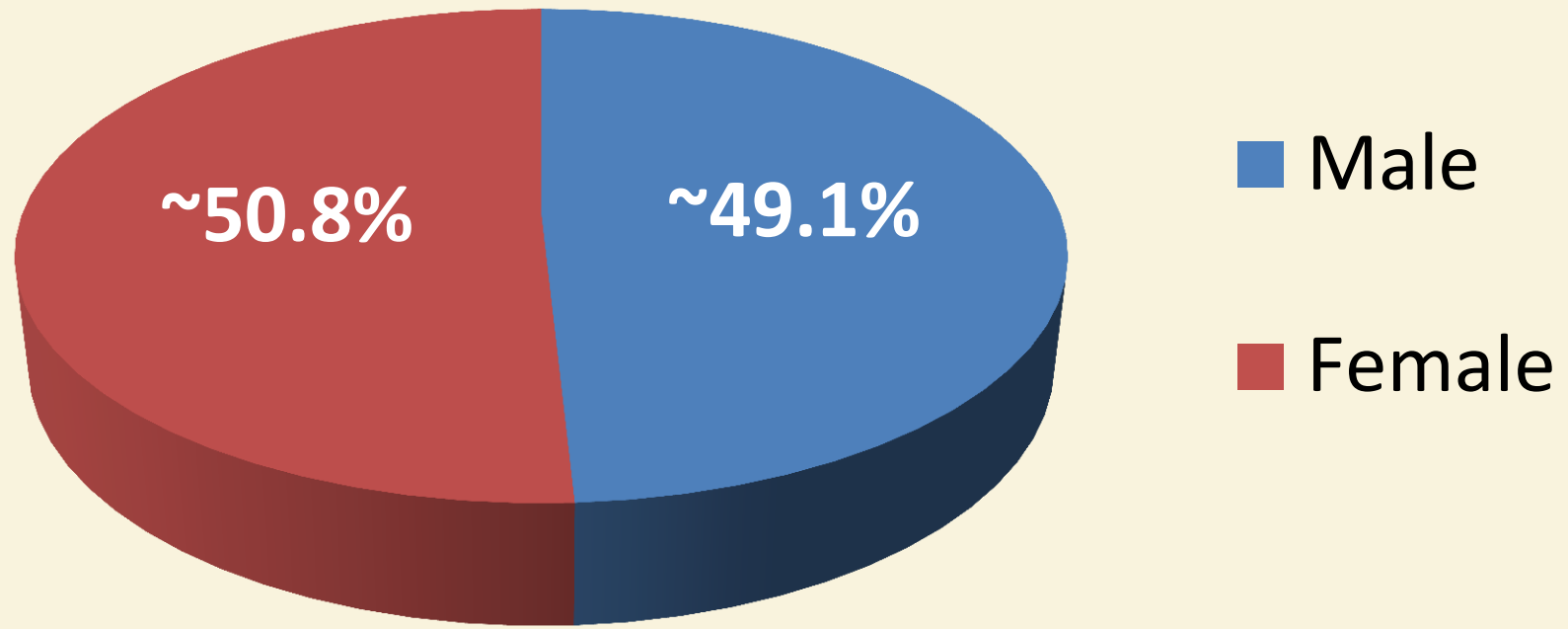
Total ED visits in 2011 = 1,244,872



Percentage of ED visits involving nonmedical use of pharmaceuticals

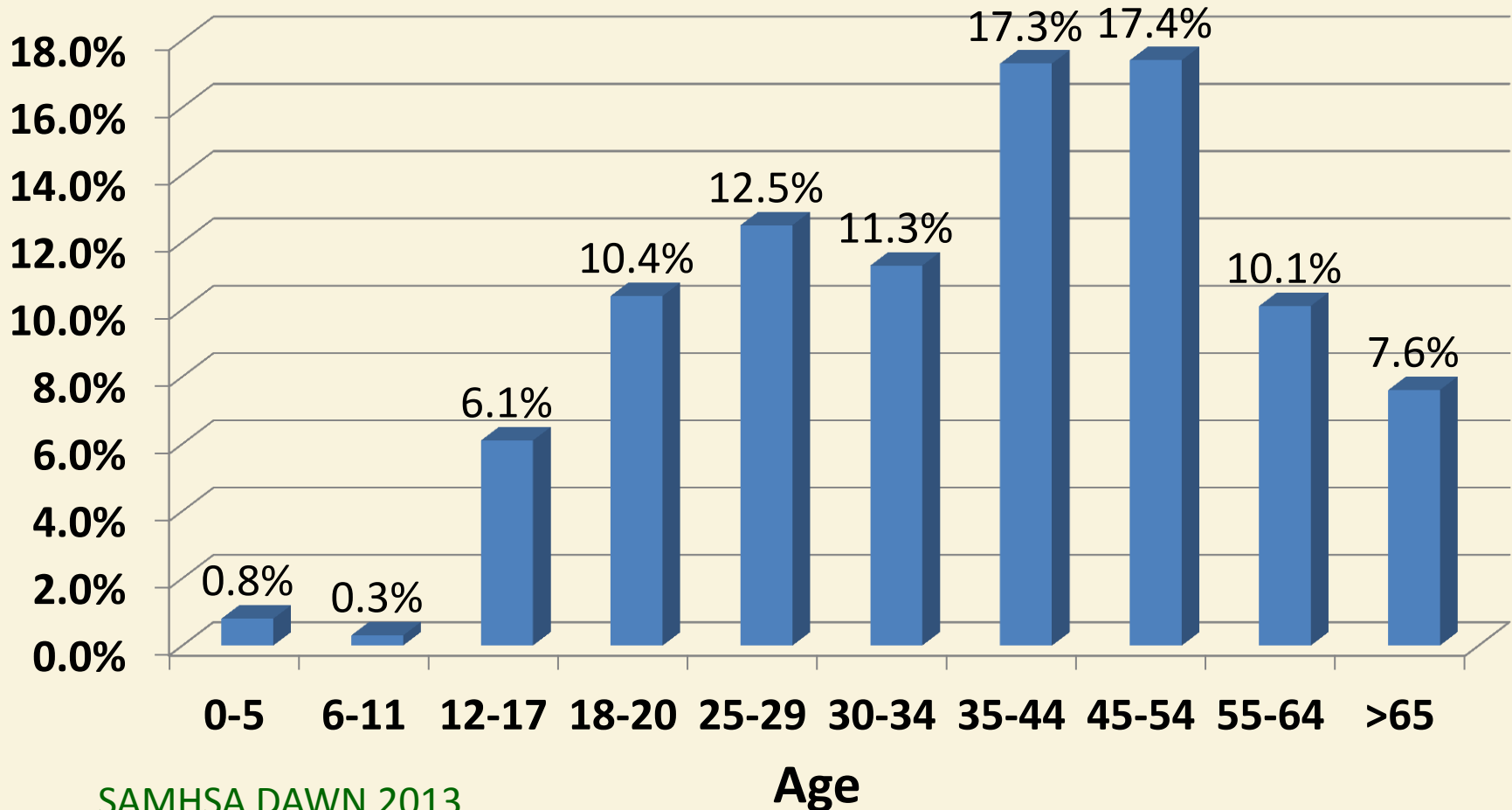


Total ED visits in 2011 = 1,244,872



Percentage of ED visits involving nonmedical use of pharmaceuticals

Total ED visits in 2011 = 1,244,872

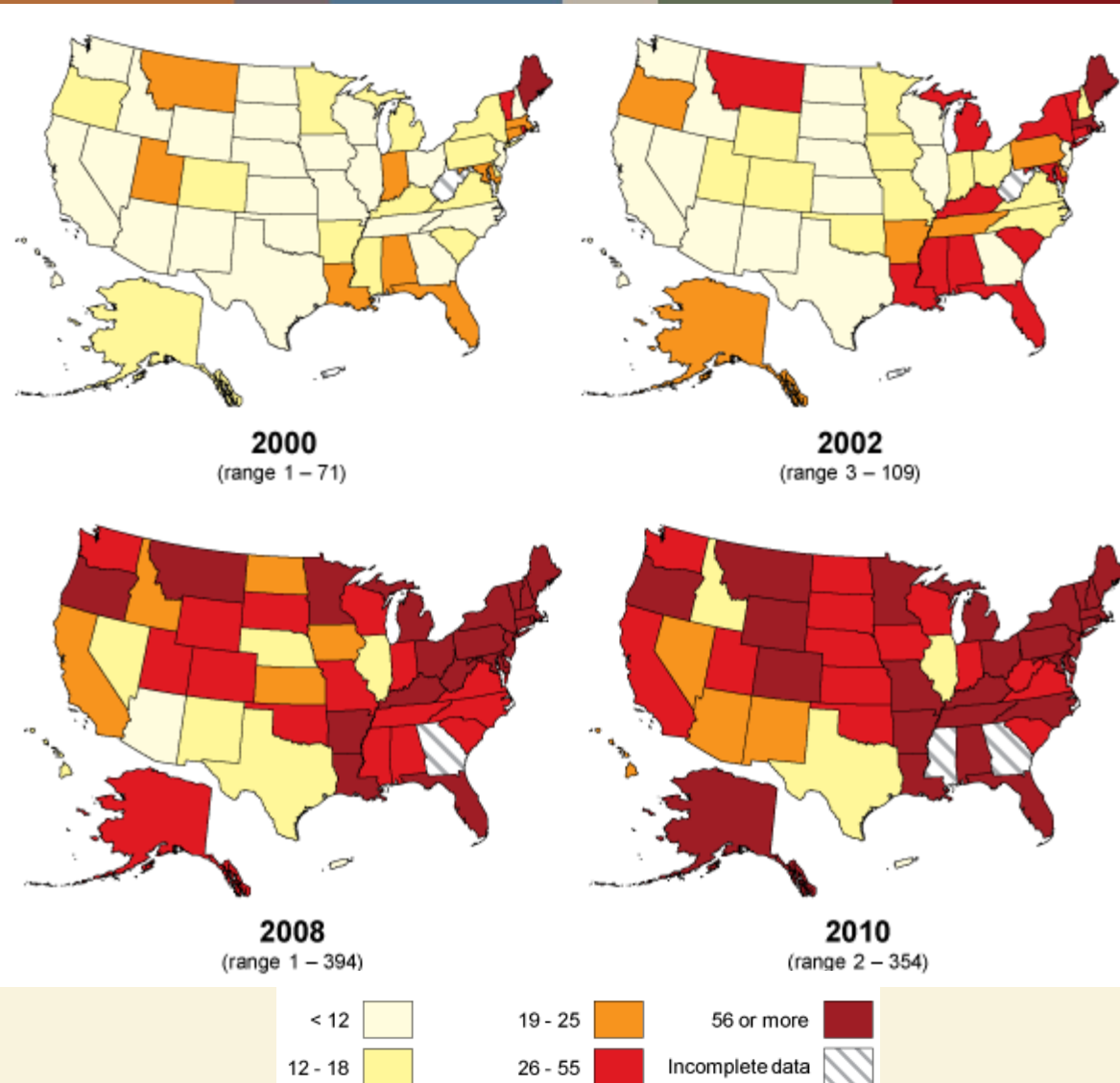


Opioid Related Emergency Department Visits



- Large increase in the number of ED visits involving nonmedical use of pharmaceuticals observed between 2004 and 2011.
 - Percentage change for opioid involved visits = 183% increase.
 - Oxycodone had the largest impact = 263% increase.
- Short term trend: 15% increase from 2009-2011.
- Pain relievers were involved in 38.0 % of drug-related suicide attempts.
 - Narcotic pain relievers were involved in over a third of that number (13.9%).

Primary Opiates*/Synthetics Admissions 2000-2010 (Per 100,000 ≥ 12 years old; *non-heroin)

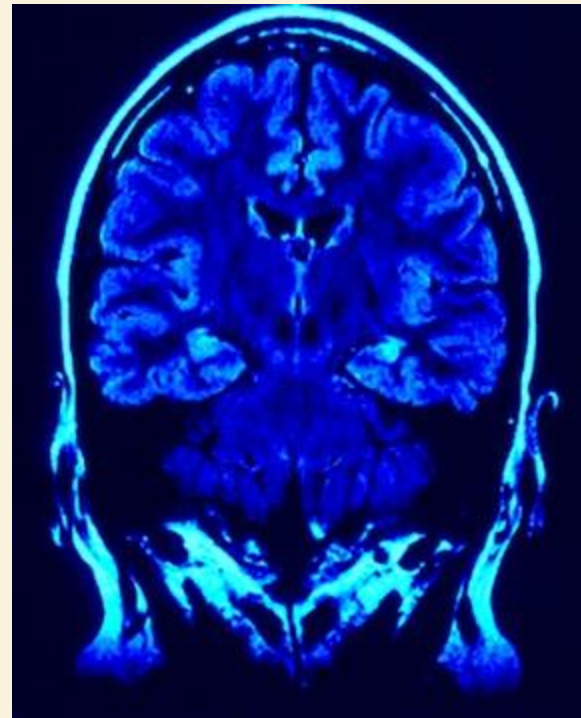


➔ Rate for opiates was 400 percent higher in 2010 than in 2000.

➔ Rates increased in every year from 2000 through 2010.

Topics

- Neurobiology
- Epidemiology
- EB Treatment
- Fostering EBPs



EBP: Recovery Oriented Systems of Care (ROSC)

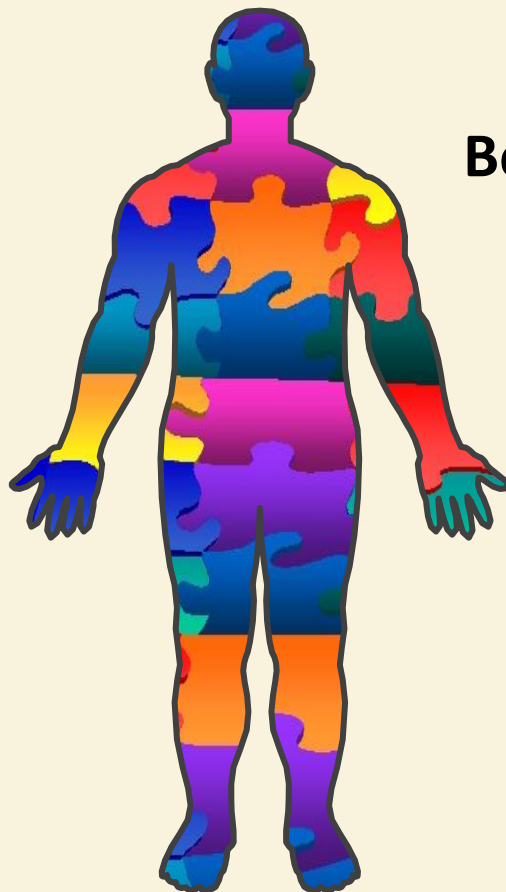
Treating a Chronic Disorder Must Treat the Whole Person in Their Social Context

**Pharmacological
Treatments
(Medications)**

Behavioral Therapies

Medical Services

Social Services



ROSC: A Way to Better Health for All



- Recovery complements prevention and treatment services in behavioral *and* physical medicine.
- Recovery focuses on an individual's strengths; on social engagement; on wellness; and on holistic health.
- Recovery looks forward; and while it learns lessons from the past, it does not use the past as a metric for the present or as a prognosis for the future.
- **Recovery does not look at a person and see a disease; but looks at an individual and sees a way to better health for the person, their family, and their community.**

ROSC

Outcomes

Systems of Care

Services & Supports

Community Individual Family

Wellness

Recovery

Health

Ongoing Systems Improvement

Evidence-Based Practice

Employment/ Education

Business Community

Addictions

Cost Effectiveness

Child Welfare

Reduced Criminal Involvement

Tribes/Tribal Organizations

Peer Support

Alcohol/Drug

Mental Health

Housing/ Transportation

Mental Health

Primary Care

Housing

Child Care

Health Care

Wellness

Recovery

Community Individual Family

Financial

Mutual Aid

Employment

Educational

Education

Vocational

Stability in Housing

Perception Of Care

DoD & Veterans Affairs

Spiritual

Civic Organizations

Indian Health Service

Legal

Case Mgt

Private Health Care

Abstinence

Retention

Bureau of Indian Affairs

Human Services

Organized Recovery Community

Access/Capacity

Social Connectedness

Health

ROSC Framework




- Provides a coordinated network of community-based services and supports that is person-centered.
- Builds on the strengths and resilience of individuals, families, and communities to achieve abstinence and improved health, wellness, and quality of life for those with or at risk of alcohol and drug problems.

ROSC Values



- Evidence-based
- Person-centered
- Self-directed
- Strength-based
- Participation of family members, caregivers, significant others, friends, and the community
- Individualized and comprehensive services and supports
- Community-based services and supports

One Size Does Not Fit All: Evidence-Based Treatments

- 
- Just as individuals vary in their susceptibility to chronic diseases, individuals vary in their response to treatments.
 - This is true for all chronic diseases including addiction:
 - For some, behavioral interventions may be effective & sufficient
 - For others, behavioral interventions may need to occur in conjunction with medication
 - Different medications may be more effective & appropriate for different individuals


Evidence-based Treatments for Addictions

- Medical Detoxification
- Outpatient Psychoeducation
- Outpatient Relapse Prevention
- Residential Therapeutic Treatment
- Family Therapy
- Self-Help Support Systems
 - 12 Step Programs (e.g., AA, NA, CA, MA)
 - Rational Recovery or Secular Organizations for Sobriety (SOS)
- Toxicology Screens/abstinence monitoring
- Medication Assisted Treatment (MAT)

Medication Assisted Treatment

- MAT is not a stand-alone treatment choice:
 - It is part of an overall EB treatment program that includes behavioral, cognitive, & other recovery-oriented interventions.
 - This overall EB treatment may include *medication where it is determined to be medically necessary and appropriate.*
- MAT, in principal, is used widely to treat a number of chronic diseases including heart disease and diabetes.

Medication Assisted Treatment (cont.)

- 
- Individuals have varied responses to different medications
 - including medications used to treat heart disease *and* to treat people at risk for heart disease.
 - Effectiveness of medications vary among individuals
 - Side effects vary among individuals
 - Adherence constraints also vary by individual, and for a given individual these constraints may vary over time/personal circumstance
 - These individual-specific responses to medications hold true for treatment of addictions.

EBP: Rehabilitation & Therapeutic MAT for Opioid Addiction



- Naltrexone can be used as an opioid blocker for those at risk for using opioids.
 - Vivitrol
- Methadone and Buprenorphine can be used for opioid maintenance for those unable to remain opioid free.
- Naloxone: Life-saving medication for opioid overdose.

EB Treatment is Complicated: Unintended Consequences

The New York Times

HEALTH

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Online November 16-17, 2013

THE DOUBLE-EDGED DRUG

Addiction Treatment With a Dark Side

In Demand in Clinics and on the Street, 'Bupe' Can Be a Savior or a Menace



THE DOUBLE-EDGED DRUG

At Clinics, Tumultuous Lives and Turbulent Care



EB Treatment is Complicated: Interdependencies

The new drug of choice

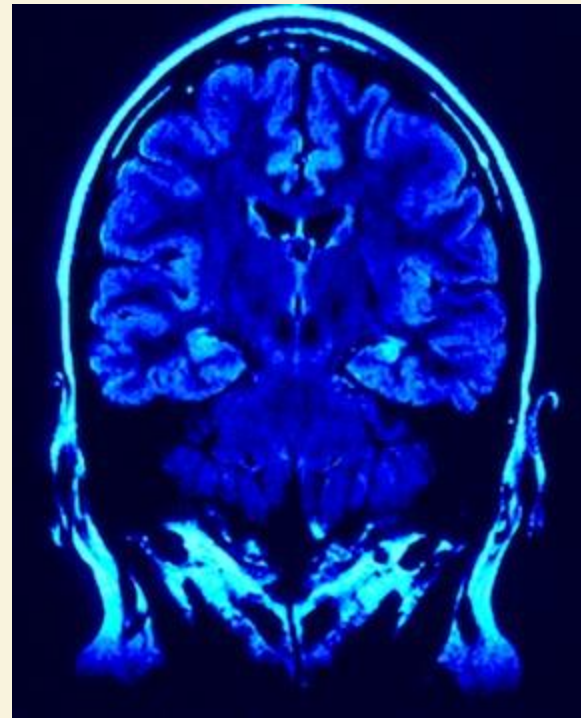


PHOTOS BY JAHÍ CHIKWENDU/THE WASHINGTON POST

Pr. William sweep for pain pills turns up heroin

Topics

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EBP Opioid Overdose Toolkit



- ➔ Educate individuals, families, first responders, prescribing providers, and community members.
- ➔ Practical, plain language information about steps to take to prevent opioid overdose and to treat overdoses (including the use of naloxone).
- ➔ 5 modules, each one customized to address the specific needs of target audiences.

- ➔ Important resources for patients, families, prescribers, and communities. **54**

*August 27-October 31 2013

EBP Technical Assistance & Workforce Development

The screenshot shows the ATTC Network website. At the top left is the ATTC logo (Addiction Technology Transfer Center Network) and a search bar. Below the logo is a navigation menu with links: Who We Are, What We Do, Who We Serve, Find an ATTC, and Quick Links. The main content area is divided into three sections: 'Explore more...' with links to Regional Centers, National Programs and Initiatives, and ATTC Priority Areas; 'Learn more...' with links to Featured Topics Library, Term Master, and Educational Opportunities; and 'Find more...' with links to Resources & Publications, Events, and Certification Information. There are also icons for Training, Links, and Materials. A banner at the bottom of the main content area states: 'The ATTC Network forges collaborative partnerships to leverage resources and provide more accessible and comprehensive services.' Below the main content is a 'Subscribe in a reader' button. On the left side, there is a 'Miss our live TweetChat?' section with a 'Catch-up on the conversation below:' heading and a list of tweets from @attcbridge. On the right side, there is a 'Now Available more...' section with a list of publications, including 'NIDA/SAMHSA Blending Initiative - view Blending products or order The Science of Treatment CD', '10/11/2013 The Bridge NEW Issue!', '9/30/2013 SAMHSA News! Fall 2013', and '9/16/2013'.

→ SAMHSA's ATTC Network

- EBP Technical assistance & technology transfer
- Workforce Development
- Training
- Distance education
- Research translation
- Resource dissemination

EBP Treatment Protocols and KAP Keys

Medication-Assisted Treatment For Opioid Addiction in Opioid Treatment Programs

A Treatment
Improvement
Protocol

**TIP
43**

KAP Keys

For Clinicians

Based on TIP 43

Medication-Assisted
Treatment for Opioid



Addiction
in Opioid
Treatment
Programs

<http://162.99.3.213/products/manuals/tips/pdf/TIP43.pdf>
http://162.99.3.213/products/tools/keys/pdfs/KK_43.pdf


EBP Opioid Treatment Guidelines

Federal Guidelines for Opioid Treatment

April 2013

DRAFT

EBP Consensus Guidelines (in process): The use of extended-release injectable naltrexone .



- Target audience is non-addictions specialist prescribers.
- Goal is to increase adoption of these evidence based practices.
- Correctional facilities can use this as a foundation for adding extended-release injectable naltrexone to their array of treatment options.

EBP Guidelines (in process) for Treatment of Opioid Dependent Pregnant and Parenting Women

- SAMHSA is convening two panels of experts and will use the Rand UCLA appropriateness method to establish best available medical and clinical practice to optimize outcomes for this population.
- Development and dissemination will be accomplished with collaboration across SAMHSA centers.

EBP Literature Reviews

**Risk and Protective Factors
Associated with Nonmedical
Use of Prescription Drugs:**
A Review of Literature

SAMHSA's Center for the Application
of Prevention Technologies
September, 2013


September 2013



**Strategies and Interventions
for Reducing Nonmedical Use
of Prescription Drugs:**
A Review of Literature (2006-2013)

SAMHSA's Center for the Application
of Prevention Technologies
October, 2013

October 2013



<http://captus.samhsa.gov/prevention-practice/targeted-prevention/prescription-drug-abuse>

EBP: Screening, Brief Intervention & Referral to Treatment (SBIRT)

- Embedding screening, brief intervention, referral & treatment of substance abuse problems within primary care settings such as emergency centers, community health care clinics, and trauma centers helps to:
- Identify patients who don't perceive a need for treatment,
 - Provide them with a solid strategy to reduce or eliminate substance abuse, and
 - Move them into appropriate services.

EBP: SBIRT's Return-on-Investment

SAMHSA's 2012 SBIRT: Clients served = 133,043

Clients reporting No Alcohol/Drug Use	At Intake	6-Month Follow-up	Difference
Brief Intervention	8%	40%	↑ 398%
Brief Treatment	8%	40%	↑ 400%
Referral to Treatment	6%	42%	↑ 600%

EBP: SAMHSA's Block Grants



- Emphasis on EBPs.
- Inherent flexibility allows each state/locality to support EBPs that address the unique needs of their citizenry, including prescription drug abuse & misuse.
- In response to dynamic shifts in MH/SUD needs, like the Rx drug problem, BG funds may be repurposed & realigned to better meet these needs.

SAMHSA Block Grants (Dollars in Thousands)

	FY2012 Actual	FY2013 Annualized CR	FY2014 President's Budget
SABG	\$1,800,332	\$1,811,350	\$1,819,856
MHBG	\$459,756	\$462,570	\$459,756

SABG: Substance Abuse Prevention and Treatment Block Grant

MHBG: Community Mental Health Services Block Grant

SAMHSA FY2014 CJ; Dollars in thousands

CR in effect until January 15, 2014. (Public Law No: 113-46;

www.thomas.gov)

EBP: National Action Plan for PDMPs



**White House
Roundtable on
Health IT
& Prescription
Drug Abuse
June 3, 2011**

Federal & State Partners

State Participants

Stakeholders

Organizations

Action Plan: Improving Access to PDMPs through HIT

**ACTION PLAN FOR IMPROVING ACCESS TO
PRESCRIPTION DRUG MONITORING
PROGRAMS THROUGH HEALTH INFORMATION
TECHNOLOGY**

Presented to
The Behavioral Health Coordinating Committee,
Department of Health and Human Services
through
The Pharmaceutical Abuse Subcommittee
by the
Prescription Drug Abuse and
Health Information Technology Work Group

JUNE 30, 2011

Implementation of National Action Plan for PDMPs (Phases 1&2)




- SAMHSA provided funding for implementation of the Action Plan through the “*Enhancing Access to PDMPs through Health IT Project*”.
 - SAMHSA partnered with ONC, ONDCP, & the CDC.
 - ONC has management oversight of the effort.

Implementation of the National Action Plan: SAMHSA's PDMP HIT Grants

- Improve real-time access to PDMP via existing technologies like EHRs (FY12,13).
- Strengthen operational state of PDMPs by increasing interoperability between states (FY12).
- Evaluate the impact of the enhancements on Rx drug abuse (FY12).
 - FY 12: 2 year funding for 9 states (FL, IL, IN, KS, ME, OH, TX, WA, WV)
 - FY 13: 2 year funding for 7 states (KY, MA, ND, NY, RI, SC, WI)

Key Takeaways of National Action Plan for PDMPs (Phases 1&2)

- Integrating into provider workflow reduces barriers to PDMP access and increases utilization.
- Type of integration can vary:
 - Value increases with degree of automation;
 - But even basic integration (hyperlink to PDMP, return PDF) is valued.
- When available, the PDMP is valuable as a clinical decision support tool.
- **Phase 3 just launched.**



**Closing Thought:
First, do no harm...**

“Advancing Access to Addiction Medications”



→ This 2013 ASAM-commissioned report found that Medicaid agencies in only 28 states cover all 3 FDA approved medications; and that private insurers & Medicaid state agencies often impose rigid, scientifically indefensible limitations on medically necessary substance abuse treatment.

“Advancing Access to Addiction Medications”

→ As PEW noted in its coverage of this report:

- *“You wouldn’t deprive a diabetic of insulin”, and you “wouldn’t hold back a statin from a patient with high cholesterol.”*
- While we are working to reduce prescription drug misuse, abuse, & diversion, we must ensure that people with a legitimate medical need for these drugs can afford them and can access them without barriers, impediments, or constraints.



THANK YOU!

Westley.Clark@samhsa.hhs.gov