

# The Intersection of Maternal & Adolescent Trauma and OUD/SUD

Virtual Training Webinar



New England (HHS Region 1)

**MHTTC** Mental Health Technology Transfer Center Network  
Funded by Substance Abuse and Mental Health Services Administration



Opioid  
Response  
Network  
STR-TA



Hilary Hodgdon, PhD

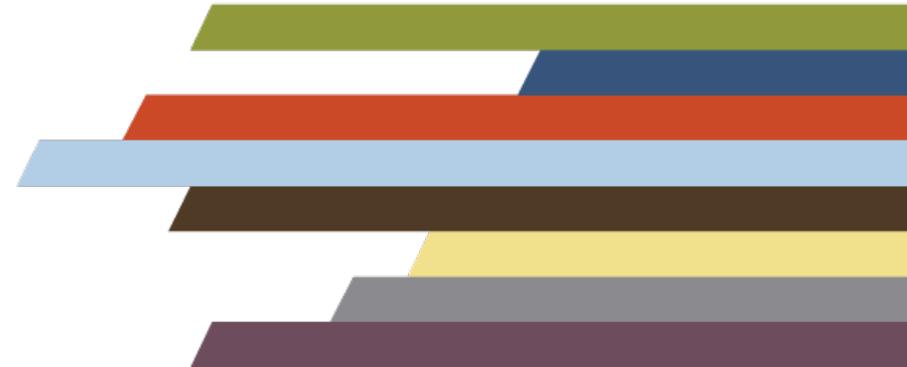
&

R. Jeffrey Goldsmith MD,  
DLFAPA, DFASAM



New England (HHS Region 1)

**ATTC** Addiction Technology Transfer Center Network  
Funded by Substance Abuse and Mental Health Services Administration





# Welcome

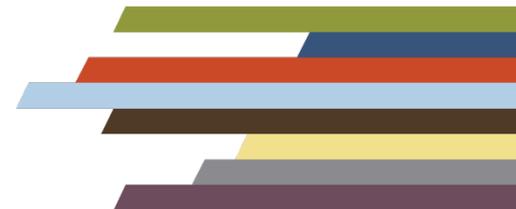
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## The Intersection of Maternal & Adolescent Trauma and OUD/SUD



***SAMHSA***  
Substance Abuse and Mental Health  
Services Administration



# Housekeeping Information



Participant microphones will be muted at entry – you will be able to unmute during the discussion portion of our webinar.



If you have questions during the webinar, please use the chat box or the “raise hand” feature during discussion to have your microphone unmuted.



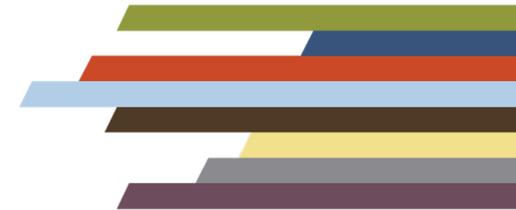
This session is being recorded and it will be available on the MHTTC website within 24 hours of the close of this presentation.



Information about CEUs will be sent in a follow-up e-mail

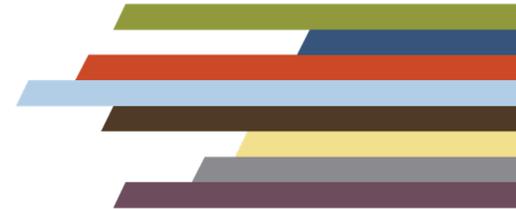


If you have questions after this session, please e-mail: [newengland@mhttcnetwork.org](mailto:newengland@mhttcnetwork.org).



# Agenda

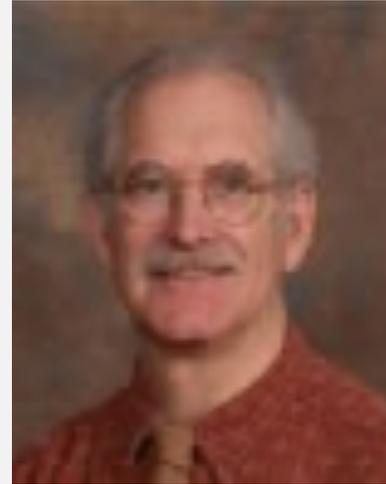
- Welcome & Introductions
- Adverse Childhood Experiences (ACES) & Adolescent Development
- Neurobiology of Addiction
- Q & A



# Meet our Presenters



**Hilary Hodgdon, PhD**  
Trauma Center at JRI  
National Child Traumatic  
Stress Network



**R. Jeffrey Goldsmith MD,  
DLFAPA, DFASAM**  
Past President, ASAM  
Diplomat of the American Board  
of Preventive Medicine



*Disclaimer: Dr. Hodgdon does not have any commercial or conflict of interest to disclose associated with this learning activity.*

*Dr. Goldsmith has no financial disclosures or conflicts of interest. He is on the Board of Windhorse Zen Community, as well as on the Board of Biddeford Pool Improvement Association. He completed his term (4/17-4/19) on the BOD as Immediate Past President of the American Society of Addiction Medicine*



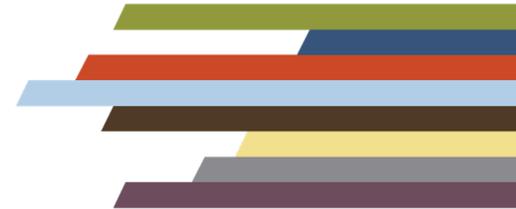
## New England MHTTC

### **Mission**

To use evidence-based means to disseminate evidence-based practices across the New England region.

### **Area of Focus**

Recovery-Oriented Practices, including Recovery Support Services, within the Context of Recovery-Oriented Systems of Care.





# OUR TEAM

Yale Program for Recovery  
and Community Health

in partnership with

C4 Innovations,  
Harvard University  
Department of Psychiatry,  
and Center for Educational  
Improvement



# Opioid Response Network



Opioid  
Response  
Network  
STR-TA

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Education  
and Training  
Start Here.

# Working with communities to address the opioid crisis.

- ✧ SAMHSA's State Targeted Response Technical Assistance (STR-TA) grant created the *Opioid Response Network* to assist STR grantees, individuals and other organizations by providing the resources and technical assistance they need locally to address the opioid crisis .
- ✧ Technical assistance is available to support the evidence-based prevention, treatment, and recovery of opioid use disorders.

Funding for this initiative was made possible (in part) by grant no. 6H79TI080816 from SAMHSA. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.



# Working with communities to address the opioid crisis.

- ✧ The Opioid Response Network (ORN) provides local, experienced consultants in prevention, treatment and recovery to communities and organizations to help address this opioid crisis.
- ✧ The ORN accepts requests for education and training.
- ✧ Each state/territory has a designated team, led by a regional Technology Transfer Specialist (TTS), who is an expert in implementing evidence-based practices.



# Contact the Opioid Response Network

✧ To ask questions or submit a request for technical assistance:

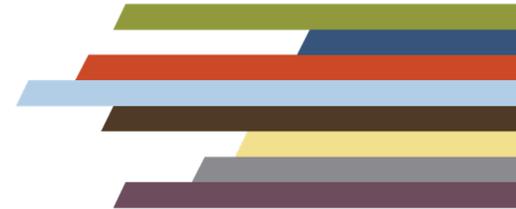
- Visit [www.OpioidResponseNetwork.org](http://www.OpioidResponseNetwork.org)
- Email [orn@aaap.org](mailto:orn@aaap.org)
- Call 401-270-5900



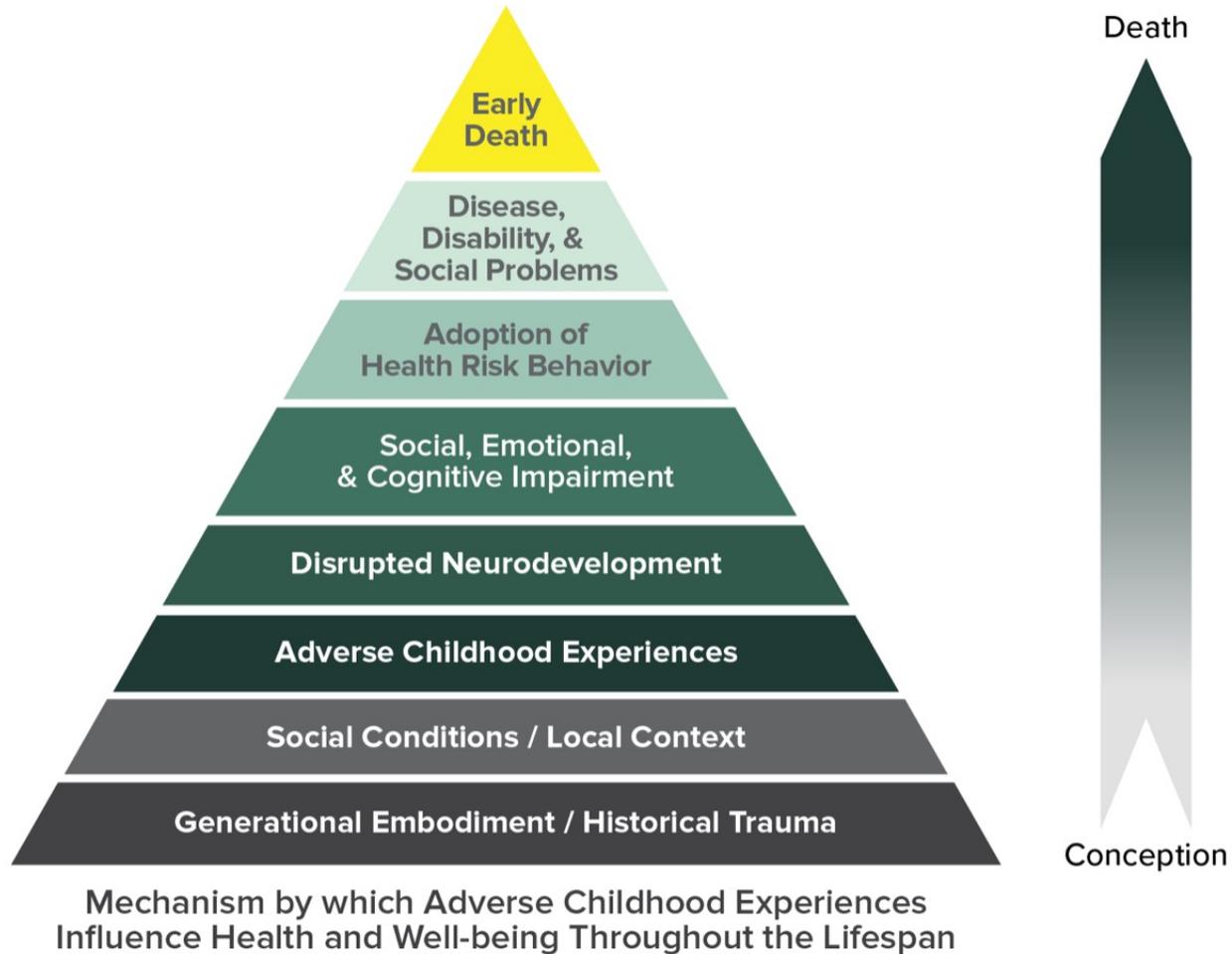


# Part 1:

ACES and Adolescent  
Development

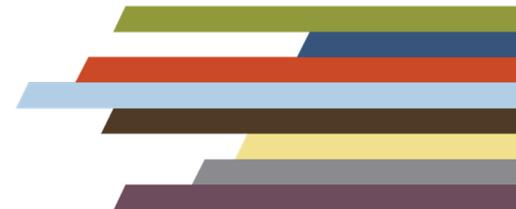


# Adverse Childhood Experiences

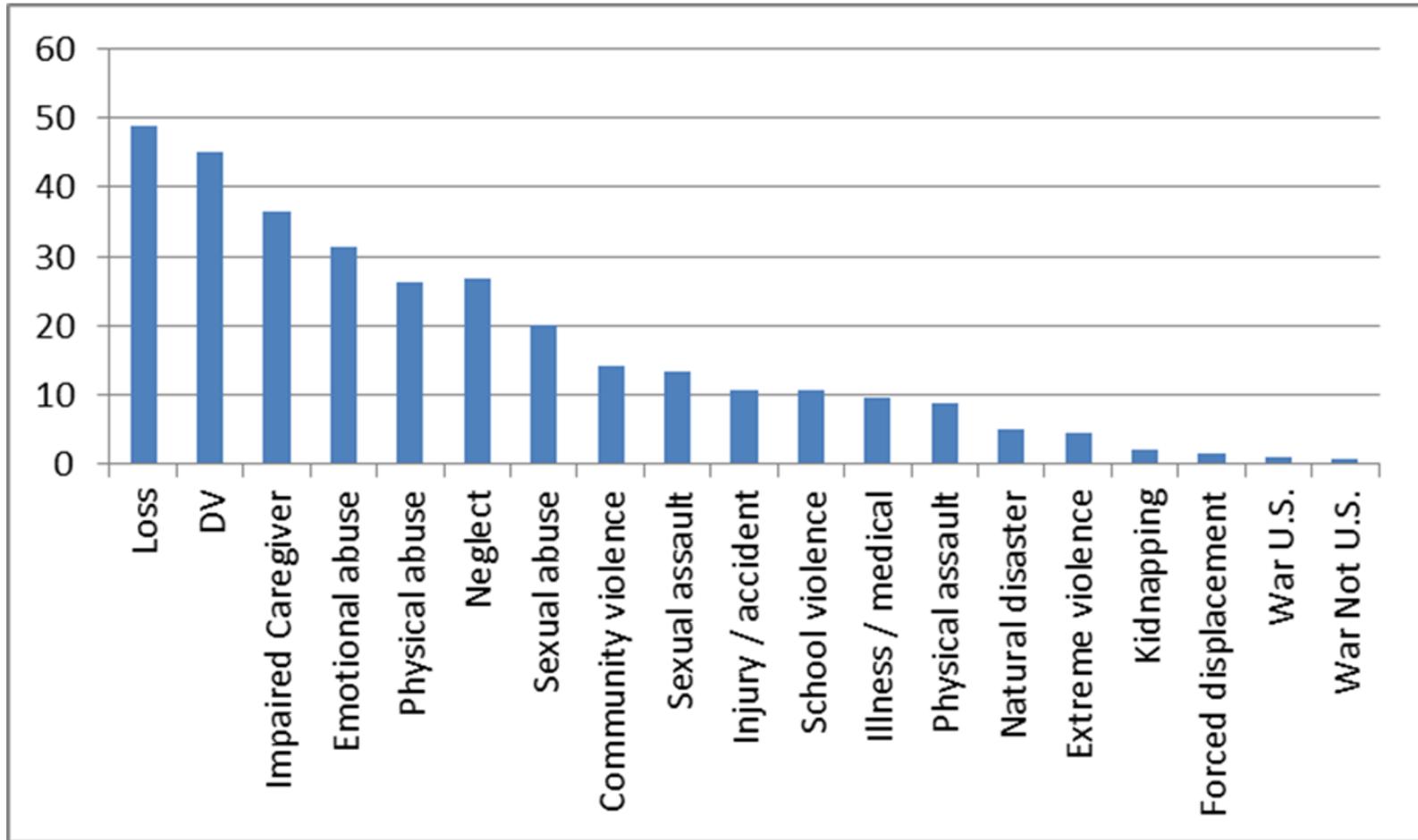


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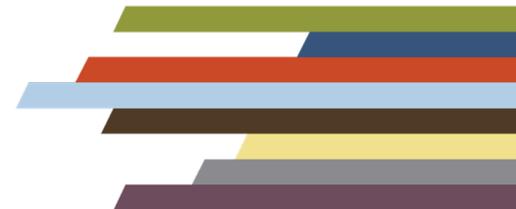
<https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/about.html>



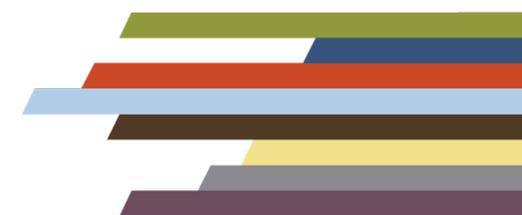
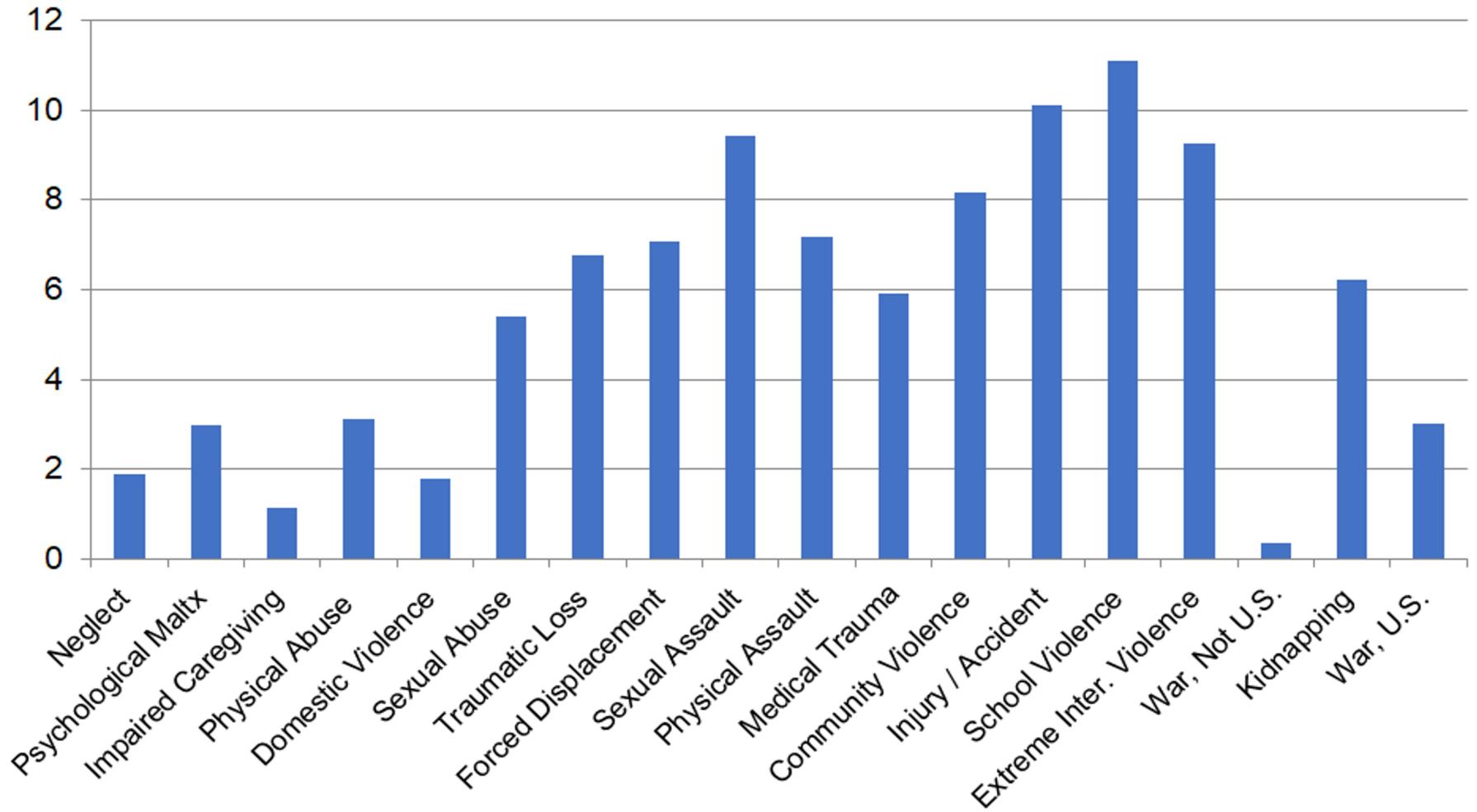
# Most Commonly Reported ACEs



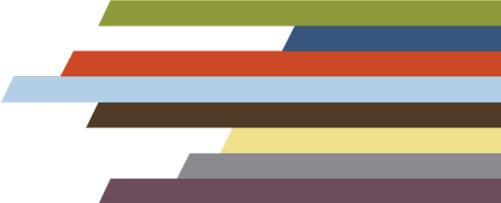
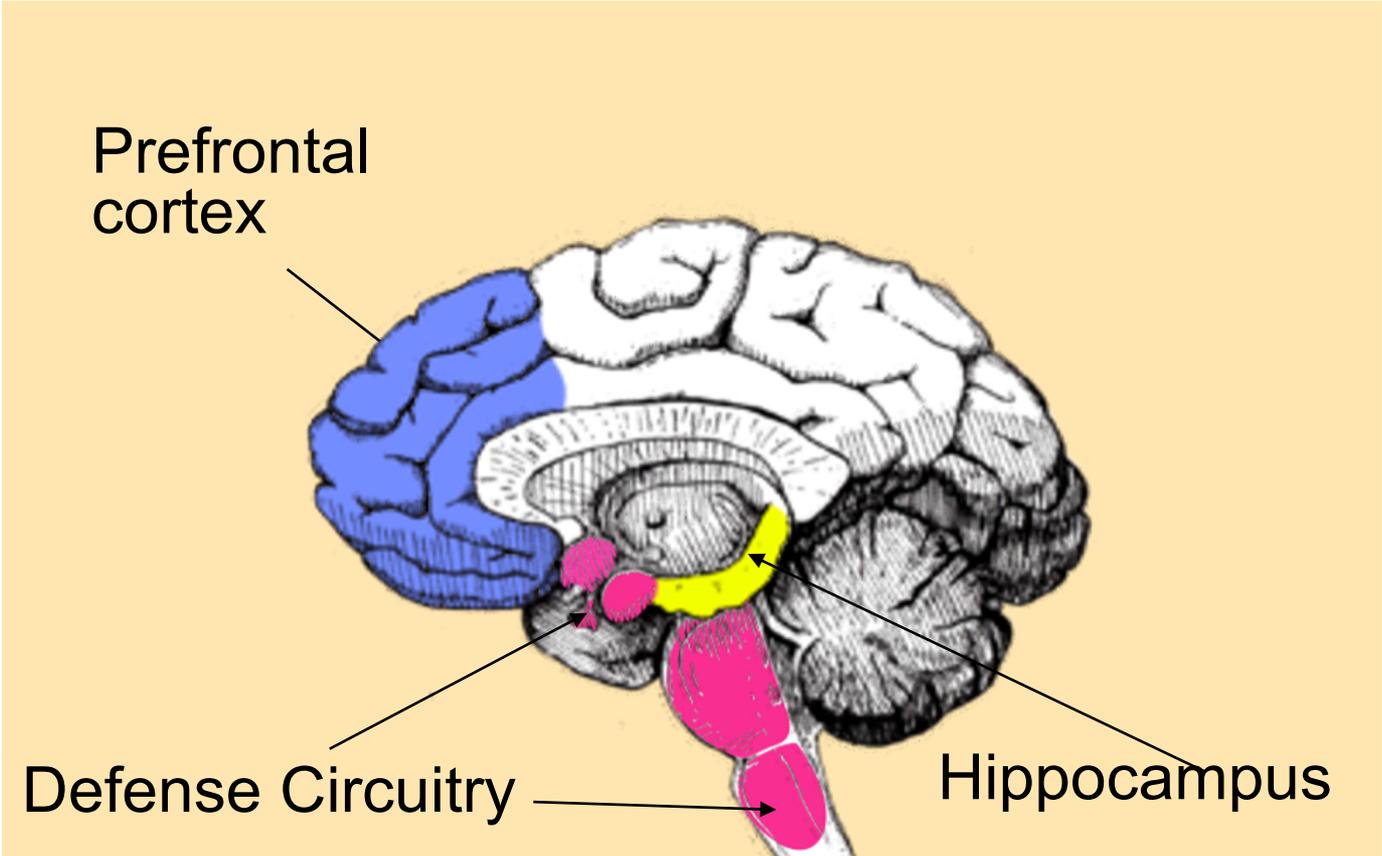
Source: Pynoos, Steinberg, Layne, Liang, Vivrette, Briggs, E., et al. (2014). Modeling constellations of trauma exposure in the National Child Traumatic Stress Network CORE Data Set. *Psychological Trauma: Theory, Research, Practice, and Policy*.



# Average Age of Onset



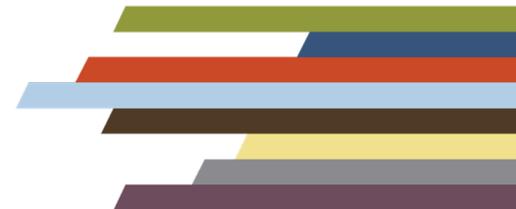
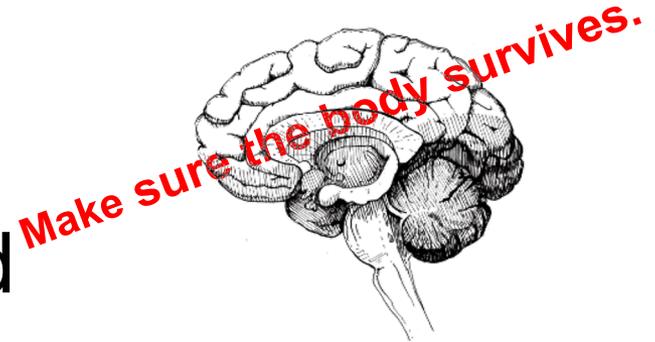
# Brain Fundamentals



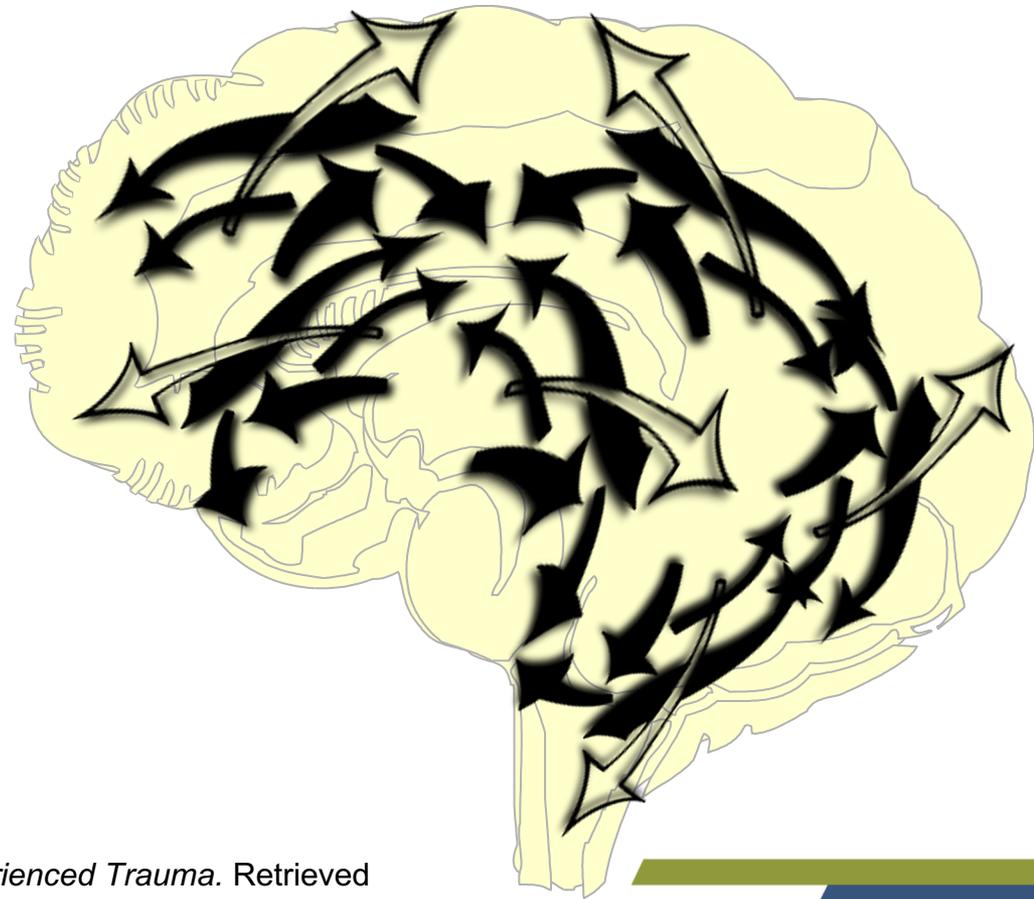
# Brain and Body Reactions to Trauma: Survival Response

During traumatic event:

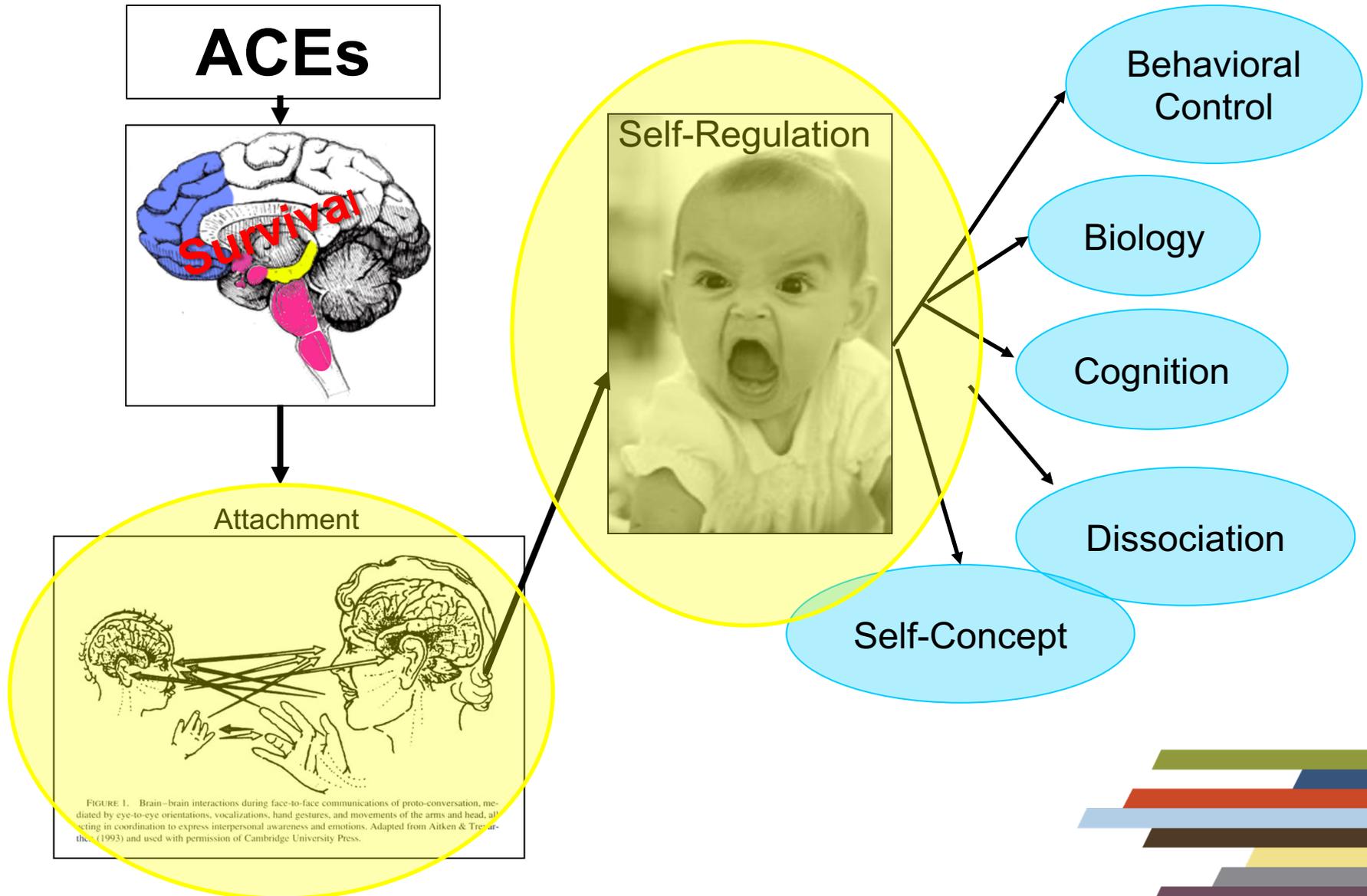
- Prefrontal cortex impaired
- Defense circuitry in control
- Brain's **automatic** survival response takes over



- The brain develops by forming connections.
- The more an experience is repeated, the stronger the connections become.



# Developmental Unfolding



# Adolescence: Window of Vulnerability (or Opportunity?)

Period of rapid brain development.

Trauma contributes to vulnerability for:

## Emotional

- Mental health challenges
- Lack adaptive regulation skills

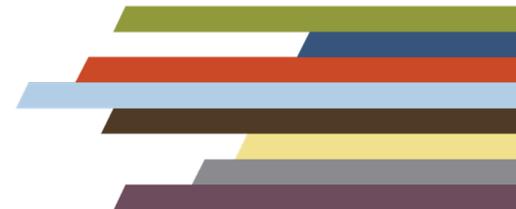
## Social

- Peer difficulties
- Family conflict

## Cognitive

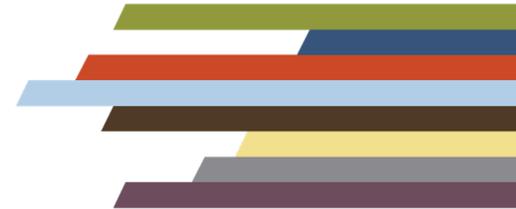
- Disrupted executive function
- Academic concerns

All of which may set them up for high risk behaviors, including substance and alcohol abuse....



# Part 2:

## Neurobiology of Addiction



# Objectives

1. Addiction is a chronic disease.
  1. Stigma undermines addiction treatment by blocking access to EBP.
  2. List two signs of stigma in self and others.
2. There are brain changes from heavy substance use.
  1. Inherited genetics make people at risk.
  2. Epigenetic changes can increase risk and become inheritable.
3. Systemic changes are important to increase awareness of addiction and trauma and implement EBP.



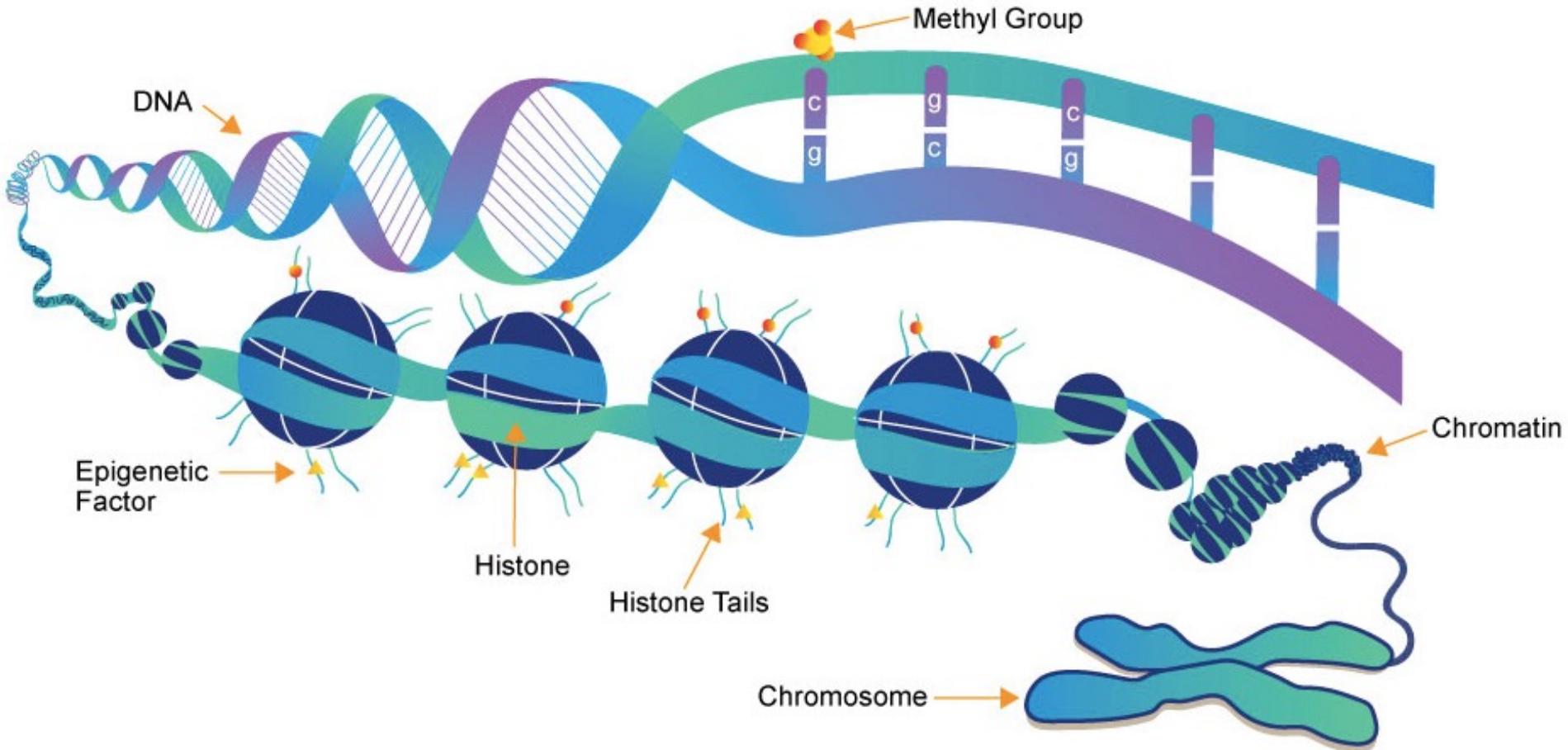
# What Can Be Transmitted from One to Another?

- ✧ DNA
- ✧ Epigenetic changes to mRNA or base pairs in DNA
- ✧ Amount of substance use
- ✧ Multiple substances used
- ✧ Marijuana
  - Myth of medical marijuana
  - False labeling of quantities (THC and CBD)
  - High concentration packages and vaping
  - Driving vehicles under the influence +/- EtOH

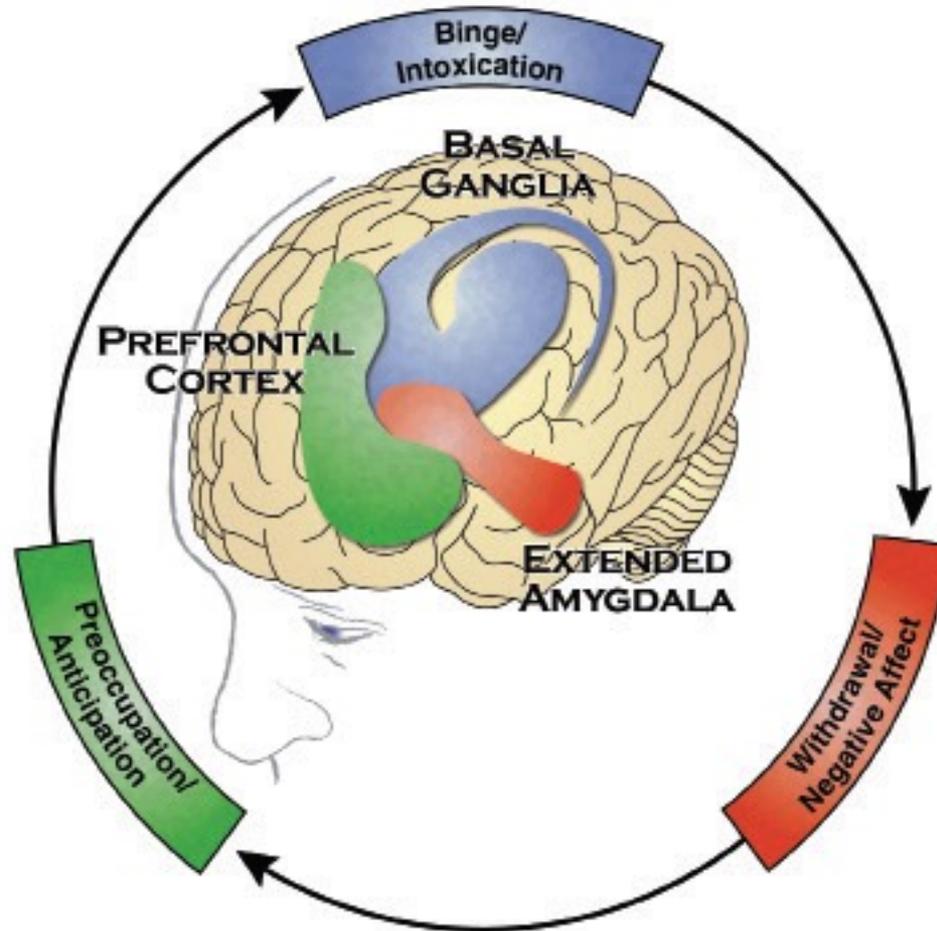


# Epigenetic Mechanism from

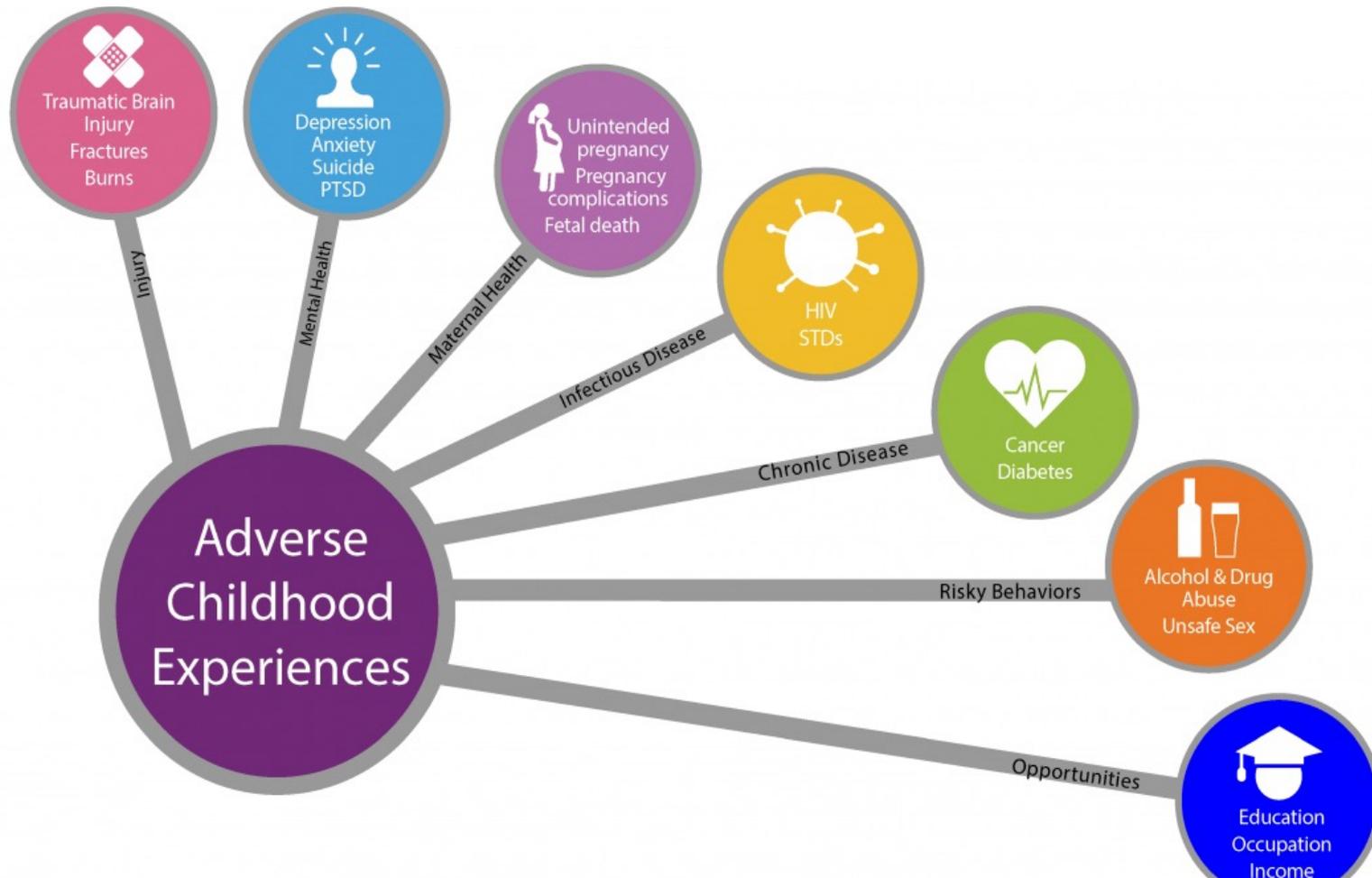
<https://www.whatisepigenetics.com/fundamentals/>



# Brain Anatomy

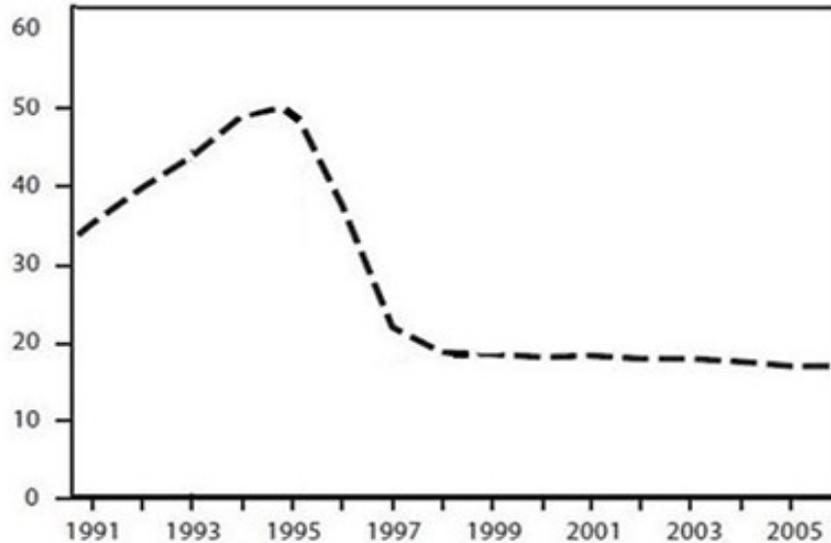


# Early Adversity Has Lasting Impacts

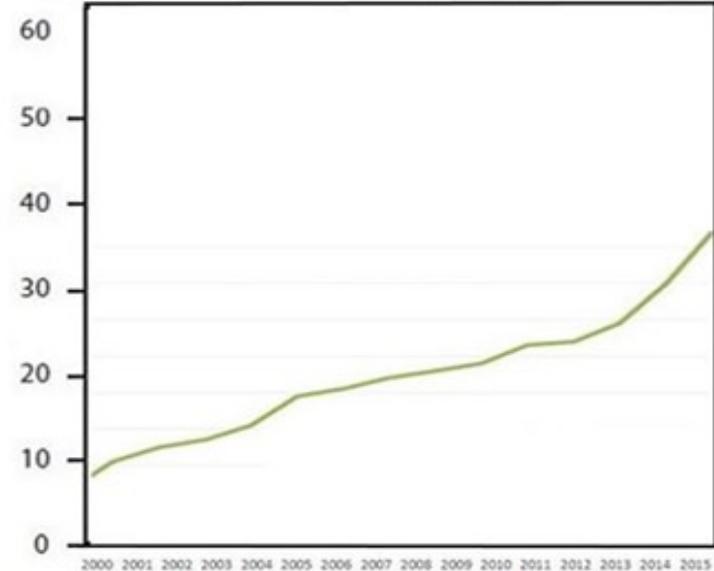


# Access to OUD Medications Remains Key Barrier to Reducing OD Deaths

Annual deaths (1,000's) from AIDS (left) and opioid overdose (right), USA



HAART ↑



OBOT ↑

XR-NTX ↑

Arrows indicate year of FDA approval of specified medications

\*HAART= Highly active antiretroviral therapy

\*OBOT = Office based outpatient treatment of opioid use disorder (OUD)

\* XR-NTX = Extended release naltrexone

Data reflect approximations adapted from the [Centers for Disease Control and Prevention](http://www.cdc.gov)

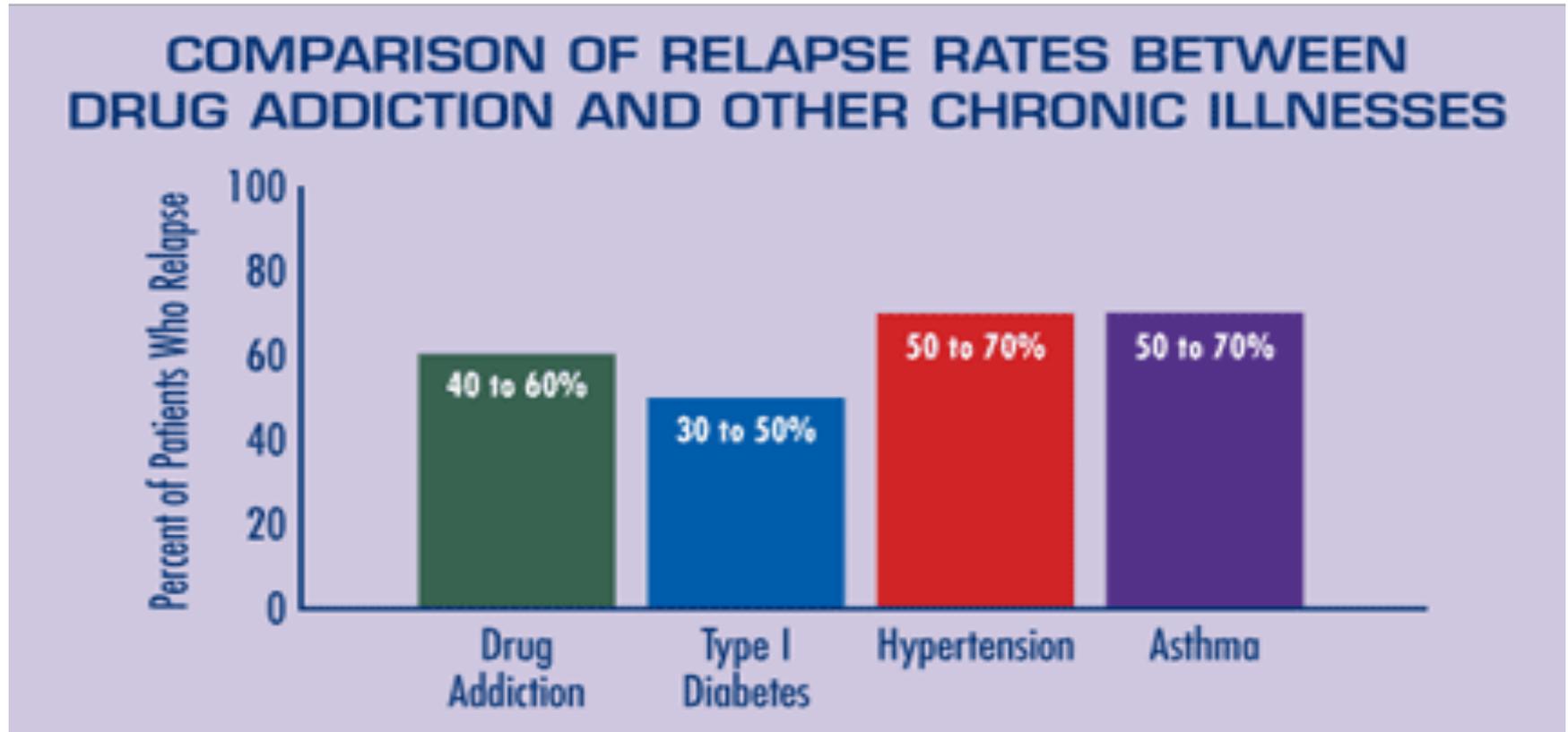


# Stigma

- ✧ 2014 study of 700 in Psychiatric Services
  - 22% willing to work closely with someone with addictions
  - 62% willing to work with someone with mental illness
  - 64% said employers should refuse to employ people with drug addiction v. 25% with mental illness
  - 43% said don't give same health insurance benefits if addiction v. 21% with mental illness
  - 30% believed Recovery impossible for each (both) illness(es)



# Relapse Rate for Addiction Similar to Other Chronic Conditions



# In Utero Exposure/NAS

- ✧ Women use alcohol and drugs during pregnancy.
  - Alcohol and cannabis products are most common.
- ✧ Alcohol and tobacco change fetal development and growth.
- ✧ Exposure is not a diagnosis, but stops it.
- ✧ Withdrawal is complicated if addicted.
- ✧ States have their own laws about reporting illegal drug use during pregnancy; know your state.



# Maine Law Reporting Pregnant Women 2013

- ✧ Currently, certain mandated reporters of child abuse are required to report to the Department of Health and Human Services when they know or suspect that an infant had been exposed to drugs or alcohol prior to birth. This bill extends that mandate to all mandated reporters of child abuse, adds substance abuse addiction treatment providers to the list of mandated reporters and requires all mandated reporters to report to the Department of Health and Human Services not only after the birth of an infant but when they know of or suspect substance abuse by a woman during her pregnancy.



# Addiction Prevention

- ✧ School-based prevention programs include:
  - social resistance skills training
  - normative education
  - competence enhancement skills training
- ✧ Most effective school-based prevention:
  - is interactive
  - focuses on building skills in drug resistance
  - teaches general competence skills
  - happens over multiple years
  - includes a substantive community component



# Young Adult Addiction Prevention

- ✧ 18-25 is peak age use.
- ✧ Marijuana use is escalating in this age and younger.
- ✧ Monthly binge drinking is about 1/3.
- ✧ High risk fraternities, non-college, poverty/rural





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# Questions?

Visit: <http://www.mhttcnetwork.org/newengland>

E-mail: [newengland@mhttcnetwork.org](mailto:newengland@mhttcnetwork.org)

Visit: <http://www.opioidresponsenetwork.org>

E-mail: [orn@aaap.org](mailto:orn@aaap.org)

## Contact our Presenters

Hilary Hodgdon, PhD  
Trauma Center at JRI  
National Child Traumatic  
Stress Network  
Email: [hhodgdon@jri.org](mailto:hhodgdon@jri.org)

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Email: [rjeffreygoldsmit@gmail.com](mailto:rjeffreygoldsmit@gmail.com)

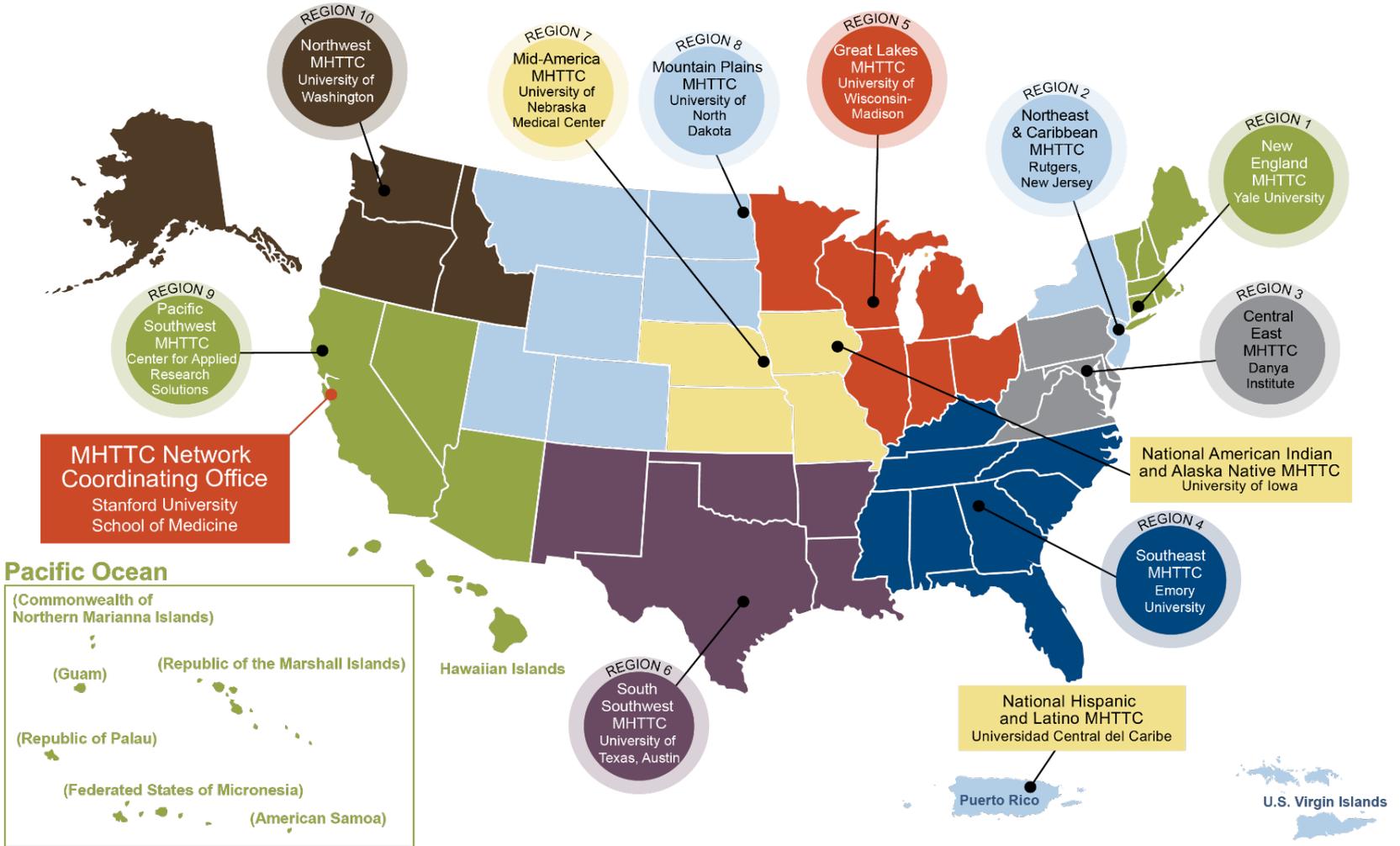




# MHTTC

Mental Health Technology Transfer Center Network  
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## MHTTC Network





# Ensuring Inclusion

To ensure the responsiveness of our work, we will actively develop and maintain a network of government officials, policy makers, system leaders, administrators, community stakeholders, providers, researchers, youth and adults, and family members from each of the six states to guide the New England MHTTC's activities.

# Resilience & Recovery



*Resilience and recovery* are based on respect.

*Resilience and recovery* emerge from hope.

*Resilience and recovery* are family- and person-driven.

*Resilience and recovery* occur via many pathways.

*Resilience and recovery* are community- based and promoted through collaboration.

*Resilience and recovery* are holistic.

*Resilience and recovery* are supported by peers and allies.

*Resilience and recovery* are supported through relationships and social networks.

*Resilience and recovery* are culturally-based and influenced.

*Resilience and recovery* are supported by addressing trauma.

*Resilience and recovery* involve individual, family, and community strengths and responsibility.

# Upcoming Events

JUN



03

## Collective Citizenship in Action: Peer to Peer Community Building

This webinar will discuss the foundations of collective citizenship framework and some ideas for

JUN



15

## What will schools be like next year? Visioning for the Future of Education - 3-part Series

Join the authors of Visioning Onward for inspiration, insights, exercises, and Q&A to prepare you to

JUN



24

## EPLC Online Discussion Series | Payment Decision Support Tool for Coordinated Specialty Care

6/24 Session - Sustained implementation of Coordinated Specialty Care (CSC) calls for innovative



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# Outreach, Outreach, Outreach



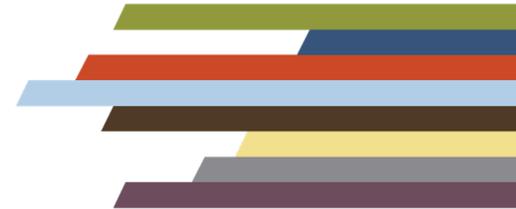
Newsletter

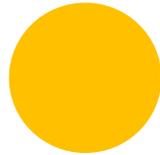
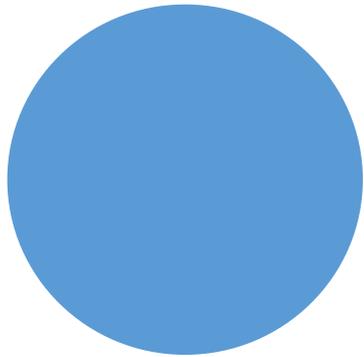
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([Facebook.com/NewEnglandMHTTC](https://www.facebook.com/NewEnglandMHTTC))

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## **To learn more about us**

<https://mhttcnetwork.org/centers/new-england-mhttc/home>

