PREVENTING AND TREATING SUBSTANCE USE DISORDERS: A FOCUS ON FEMALES ACROSS THE LIFE COURSE

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Disclosures

- Dr. Jones has no conflicts of interests or disclosures relevant to the content of this presentation.

Objectives

1. Recognize at least three ways substance use disorders can be prevented among females across the life span

2. Identify at least three unique clinical needs that girls, adolescents and women (childbearing age and older) have for treatment

•The New England journal of Medicine 2016

Neurobiological Advances from the Brain Disease Model of Addiction.

•Nora D. Volkow, George F. Koob, A. Thomas Mclellan

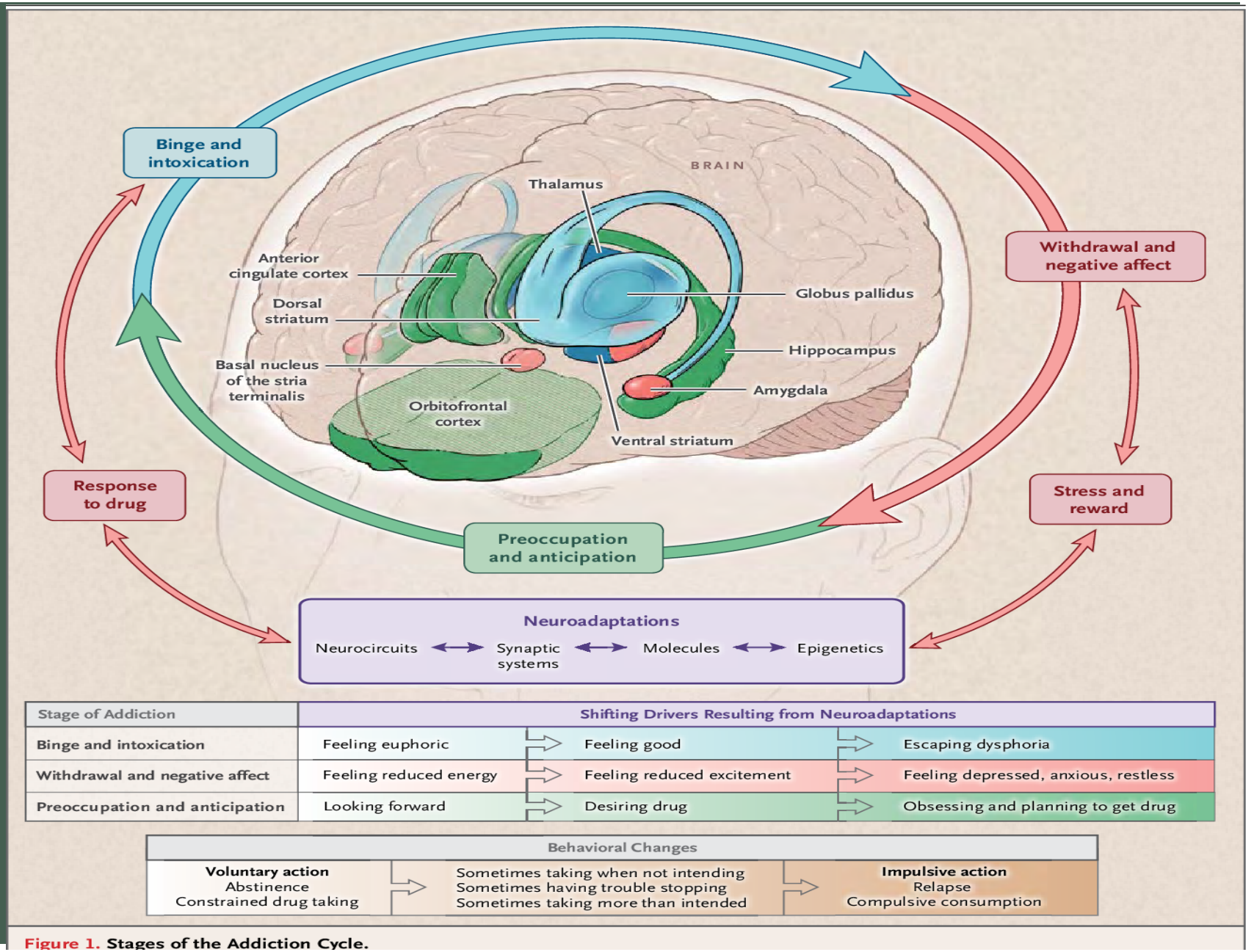
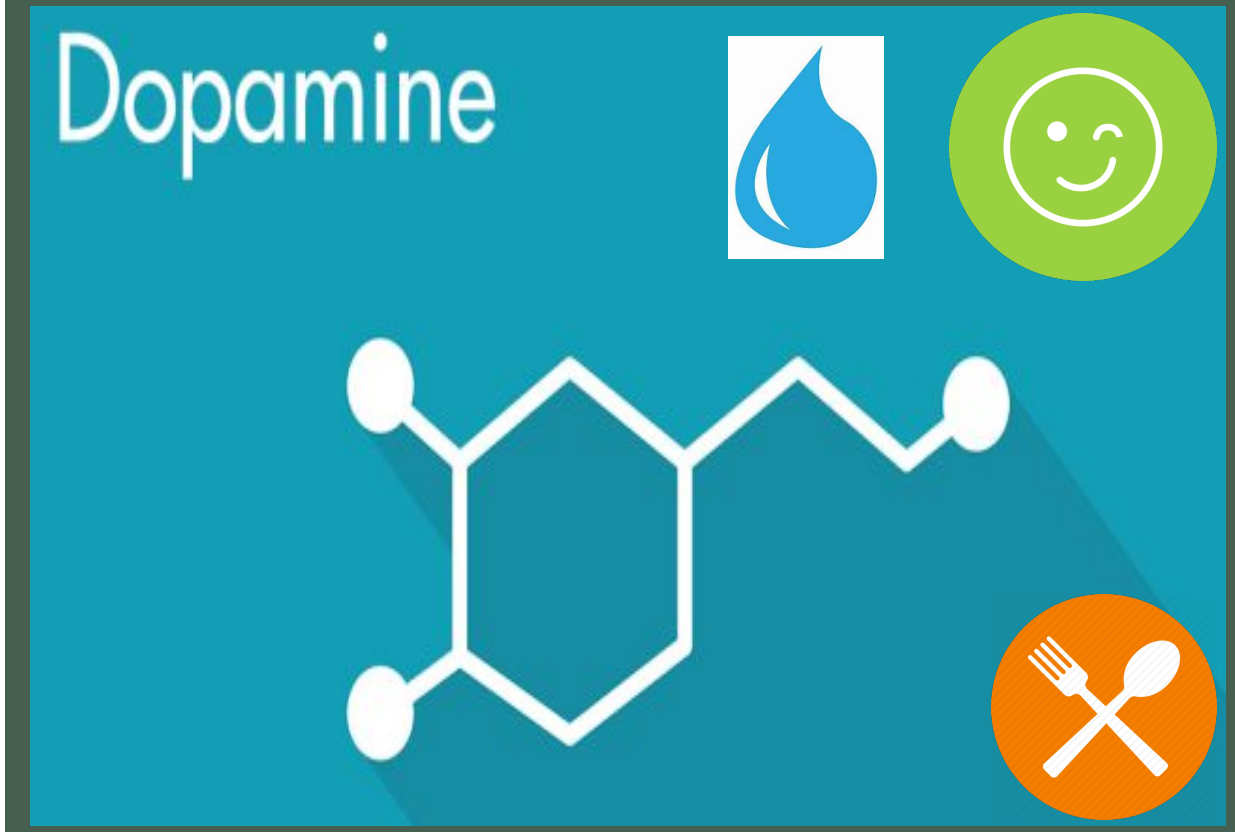


Figure 1. Stages of the Addiction Cycle.

Why Addiction Matters



nanograms/deciliter	
40	Worst Day
50	Average Day
100	Great Day!
500-1,100	Drugs

- Addiction Neuroscience 101 with Dr R. Corey Waller
- https://www.youtube.com/watch?app=desktop&v=bwZcPwlRRcc

Dopamine Matters!

Repeated Drug Use
nanograms/deciliter for drugs

500-1,100

600

500

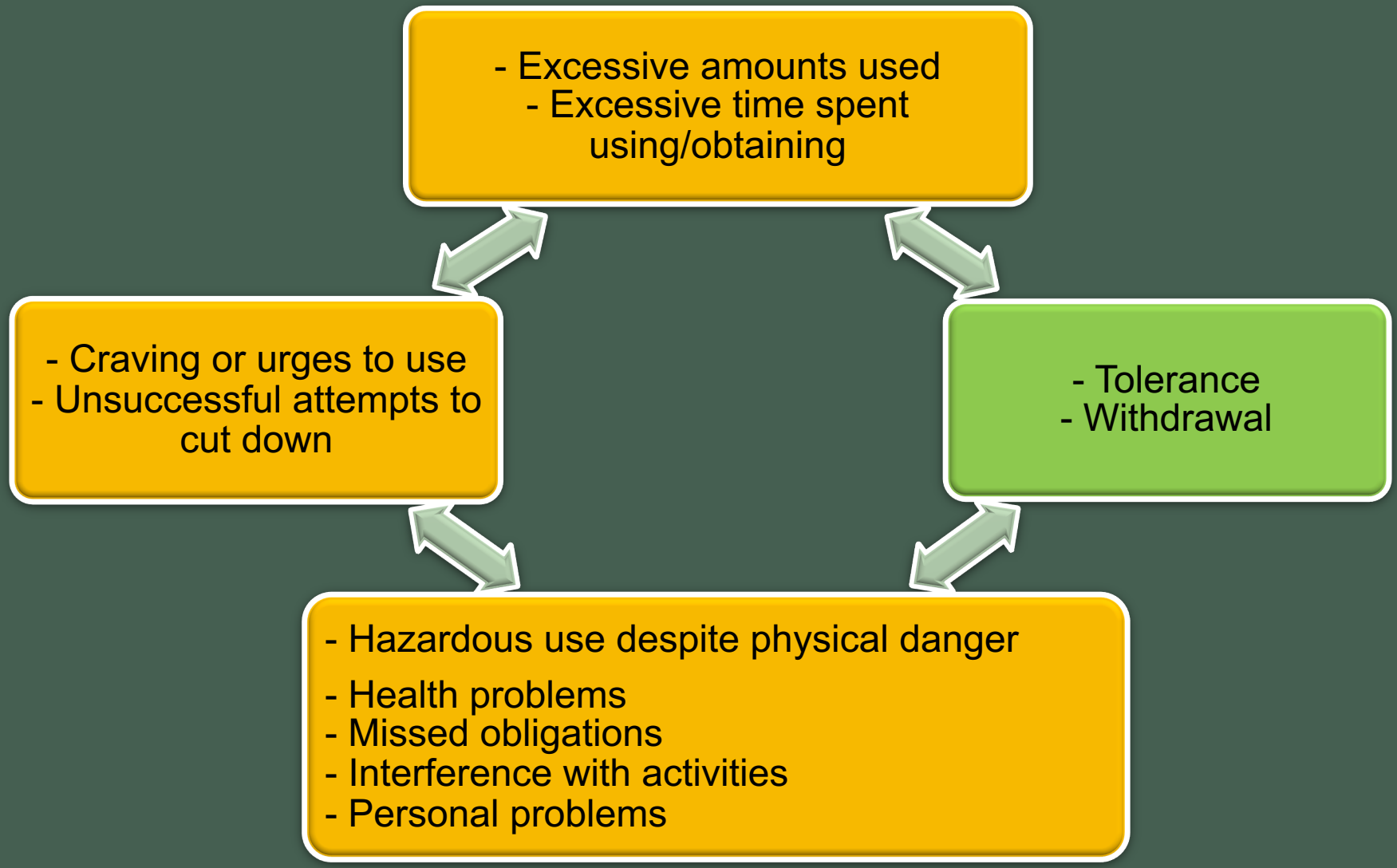
400

50

10 nanograms/deciliter every day

•Addiction Neuroscience 101 with Dr. R. Corey Waller
•https://www.youtube.com/watch?app=desktop&v=bwZcPwlRRcc

11 Signs of Substance Use Disorders



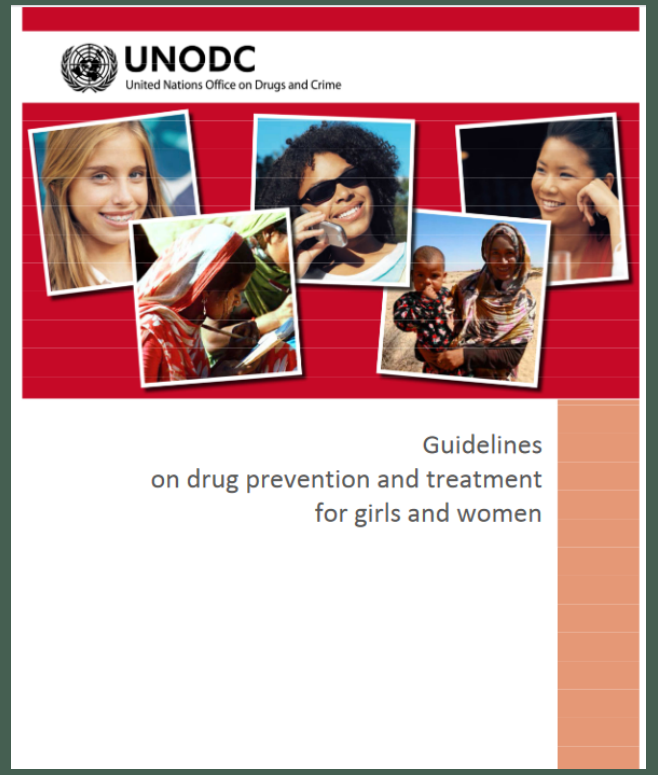
Why Focus on Females?

- Gender equality is a right.
- Females are not only more affected by the problems, but also possess ideas and leadership to solve them.
- Gender discrimination holds too many women back and holds our world back too.
- Females experience substance use disorders uniquely - women feel shame, guilt, stigma and prejudice etc.

Prevention Outcomes By Gender

"The limited research indicates that, **whilst family-based strategies are almost consistently providing as good effects for girls as for boys**, **school- and community-based strategies often fail girls.** These results are also consistent with family factors of vulnerability and resilience with girls more affected by family problems and more protected by family bonding and supervision."

"Given the importance of abuse, and particularly **sexual abuse, as a very strong vulnerability factor in the development of substance use disorders, especially among girls and women,** programmes to prevent such abuse and, particularly, to support the victims and to address post-traumatic stress disorders appear to be essential.



Why Focus on Women?

- International Narcotics Control Board devoted Chapter 1 of their report in 2016 to women
- The report summarized that compared to men, women:
  - Are highly stigmatized
  - Experience more violence
  - Are less likely to receive treatment for substance use disorders
  - Lack access to gender-specific treatment
  - Are being incarcerated at higher rates = devastating effects on children
- While gender itself may not predict treatment outcome, there are gender-specific factors that influence treatment outcomes in women

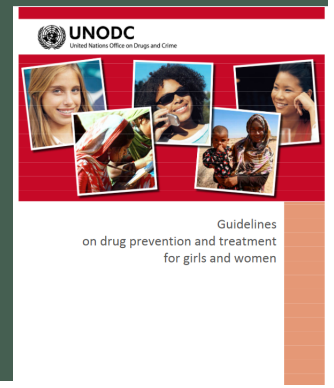
(Greenfield et al., 2007 Drug Alcohol Dep 86, 1-21; https://www.incb.org/documents/Publications/AnnualReports/AR2016/English/AR2016_E_ebook.pdf)

Table 5. Vulnerability factors for drug use in adolescence as it relates to gender

Vulnerability factors for drug use in adolescence that are more relevant for …	Girls	Boys
Depression	√	
Conduct disorder		√
Cigarette use	√	
Maternal alcoholism	√	
Maternal drug use disorder	√	
Low parental attachment	√	
Low parental monitoring	√	
Low parental concern	√	
Unstructured home environment	√	
Dysfunctional family	√	
Smoking During Pregnancy	√	
Aggressiveness in first grade		√
Higher Anxiety Response	√	
Peer Difficulties		√
Childhood Sexual Abuse	√	

Source: Lee Wetheringtn (2012)

GENDER DIFFERENCES & PREVENTION TARGETS



Gender Differences and Issues

Structural Barriers
- Lack of education
- Lack of economic opportunities can result in reliance on sex in exchange for survival needs

Relationships
- Substance use by male partner
- Family history of substance use
- Drug use initiation via male partner

Substance Use Disorders in Women

Psychiatric Disorders
- Sexual abuse related to a number of psychiatric disorders
- Strongest relationship with alcohol/drug use disorders
- Women often have more suicide attempts

Violence/Trauma/Abuse
- Common in substance use
- More likely to experience childhood abuse/sexual abuse
- Strong relationship between abuse history and drug use

Women Through the Lifespan

Girls

Women

Pregnant/Post-Pregnancy

Older

Prevention and Treatment: Across the Lifespan Considerations

Approach with empathy

Trauma responsive approach needed

Listen with eyes, ears and heart

Head to toe physical health integrated with behavioral health (than often needs to include case management)

Connection and continuity of care

LANGUAGE MATTERS!!!

LANGUAGE MATTERS:

Using Affirmative Language to Inspire Hope and Advance Recovery

Stigmatizing Language	Preferred Language
abuser	a person with or suffering from, a substance use disorder
addict	person with a substance use disorder
addicted infant	infant with neonatal abstinence syndrome (NAS)
addicted to [alcohol/drug]	has a [alcohol/drug] use disorder
alcoholic	person with an alcohol use disorder
clean	abstinent
clean screen	substance-free
co-dependency	term has not shown scientific merit
crack babies	substance-exposed infant
dirty	actively using
dirty screen	testing positive for substance use
drug abuser	person who uses drugs
drug habit	regular substance use
experimental user	person who is new to drug use
lapse / relapse / slip	resumed/experienced a recurrence
medication-assisted treatment (MAT)	medications for addiction treatment (MAT)
opioid replacement	medications for addiction treatment (MAT)
opioid replacement therapy (ORT)	medications for addiction treatment (MAT)
pregnant opiate addict	pregnant woman with an opioid use disorder
prescription drug abuse	non-medical use of a psychoactive substance
recreational or casual user	person who uses drugs for nonmedical reasons
reformed addict or alcoholic	person in recovery
relapse	reoccurrence of substance use or symptoms
slip	resumed or experienced a reoccurrence
substance abuse	substance use disorder

Adapted from: The Rhetoric of Recovery Advocacy: An Essay On the Power of Language W.L. White; E.A Salsitz, MD., Addiction Medicine vocabulary; Substance Use Disorders: A Guide to the Use of Language Prepared by TASC, Inc. Center for Substance Abuse Treatment (CSAT), Substance Abuse and Mental Health Services Administration (SAMHSA), part of the U.S. Department of Health and Human Services (DHHS), rev. 4.12.04

The Power of Words to Hurt or Heal

Gender Differences & Drug Use

Figure 1. Higher or lower prevalence of lifetime use of cannabis (drugs) among boys and girls

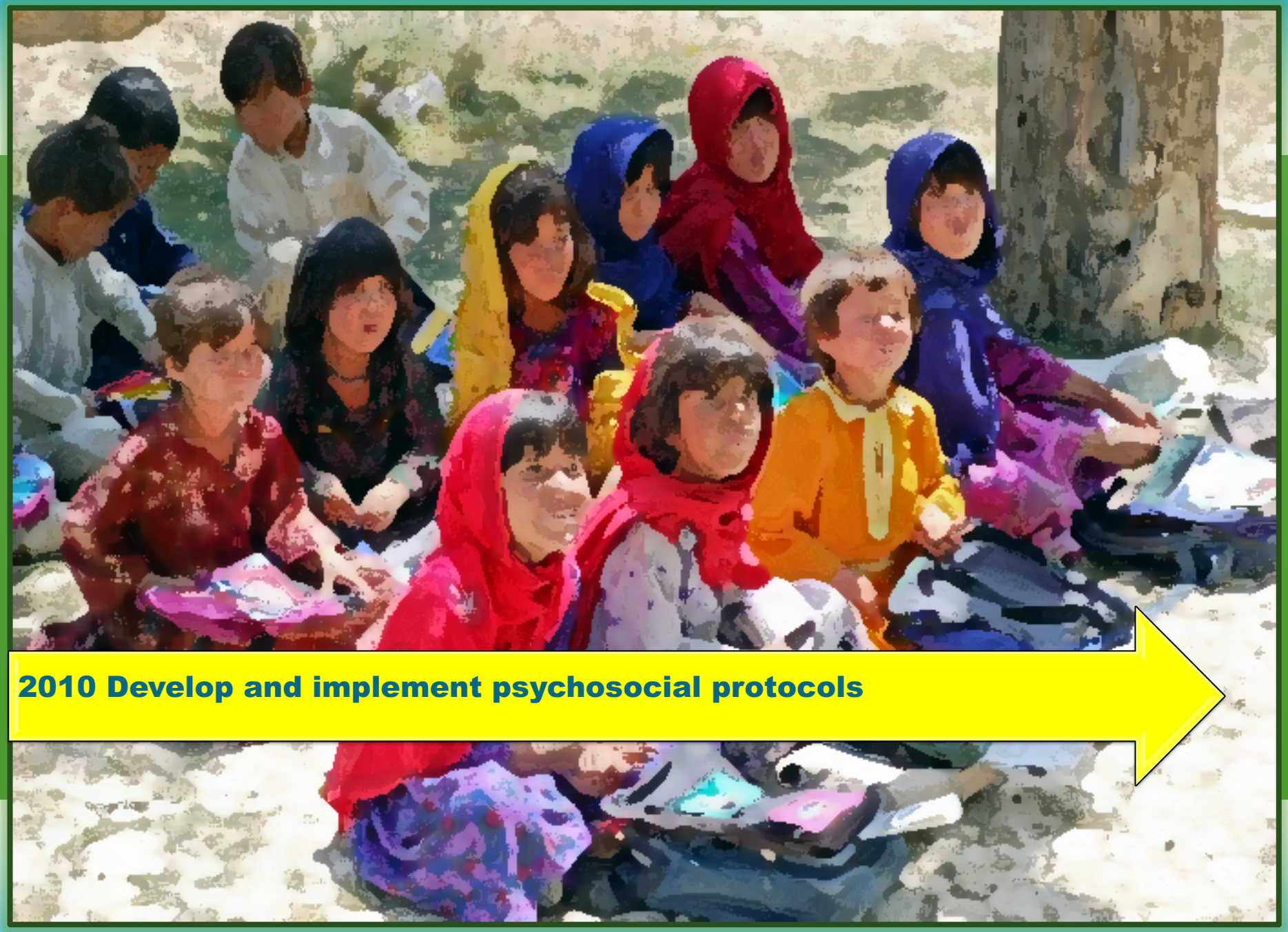
Note: LIGHTEST grey: prevalence among boys is higher than among girls, MIDDLE grey: prevalence among boys and among girls is approximately the same, DARKEST grey: prevalence among girls is higher than among boys.
Source: GSHS National Fact Sheets (see references), HSBC report for the survey 2009/10, Secretaria de Salud, (2011).

Among female school students, lifetime prevalence for cannabis and ecstasy are closer to those of their male counterparts than is the case for adults.

The number of females in relation to males tends to increase as prevalence of drug use increases.

The number of females in relation to males is generally lower for the more illegal drugs and recent or frequent patterns of drug use.

Gender Gap is Shrinking in Some Places



2010 Develop and implement psychosocial protocols

Afghanistan Child sample (*N* = 689)

Momand AS al., Int J Pediatr. 2017;2017:2382951.

Evaluation Measure	α	Outpatient entry M (SE) [n]	Residential treatment entry M (SE) [n]	Residential treatment completion M (SE) [n]	Community follow-up M (SE) [n]
Afghan Symptom Checklist (ASCL)	.96	[a]61.4 (1.59) [83]	[a,b]51.6 (1.59) [83]	[c]25.5 (1.63) [79]	[c]27.4 (2.23) [41]
Self-Reporting Questionnaire-20 (SRQ-20)	.93	[a]15.9 (.56) [84]	[a]13.6 (.57) [81]	[c]1.8 (.58) [79]	[c]1.8 (.80) [41]
Child Strengths and Difficulties Questionnaire (SDQ)					
Emotional Symptoms	.85	[a]2.81 (.28) [84]	[b]4.5 (.28) [82]	[c]0.6 (.29) [78]	[c]1.3 (.37) [41]
Conduct Problems	.92	[a]2.6 (.32) [84]	[b]5.1 (.32) [82]	[c]0.4 (.33) [78]	[a,c]1.1 (.44) [41]
Hyperactivity	.90	[a]2.9 (31) [84]	[b]5.3 (.32) [82]	[c]0.5 (.32) [78]	[c]1.2 (.43) [41]
Peer Problems	.78	[a]2.6 (.26) [84]	[b]3.8 (.26) [82]	[a,c]2.0 (.26) [78]	[c]1.4 (.33) [41]
Prosocial	.74	[a]2.7 (.32) [84]	[a]2.6 (.32) [82]	[c]6.3 (.33) [78]	[d]0.8 (.44) [41]
Total SDQ Score	.97	[a]10.9 (1.10) [84]	[b]18.7 (1.11) [82]	[c]3.6 (1.13) [78]	[c]5.3 (1.46) [41]
Quality of Life scale (QOL)					
Physical Health	.93	[a]19.2 (.57) [84]	[a]18.4 (.58) [82]	[c]8.3 (.59) [78]	[c]8.6 (.81) [41]
Mental Health	.84	[a]15.2 (.39) [84]	[a]13.6 (.39) [82]	[c]9.3 (.40) [78]	[c]8.2 (.55) [41]
Friends	.82	[a]14.1 (.38) [84]	[a]13.8 (.39) [82]	[c]10.5 (.40) [78]	[c]9.2 (.55) [41]
Home	.72	6.9 (.27) [84]	6.7 (.27) [82]	7.3 (.28) [78]	7.1 (.37) [41]
Total QOL score	.92	[a]55.4 (1.32) [84]	[a]52.1 (1.34) [82]	[c]35.3 (1.37) [78]	[c]32.9 (1.89) [41]

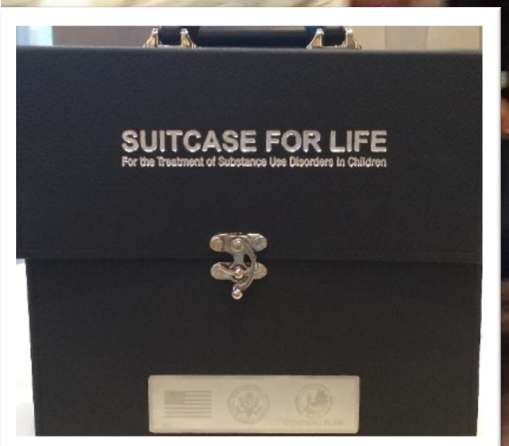
2010 Develop and implement psychosocial protocols

2012 Adapt protocols with Brazil

2013 Training Chile, Paraguay and Brazil

2015 Training Bangladesh, India and Pakistan

2018 RCT



Adolescents: Considerations

- Rapid *yet incomplete* development of brain areas associated with
  - decision-making
  - judgment
  - planning
  - self-control

- Adolescence is a time of considerable risk during which social contexts exert powerful influences

- Pressure to engage in high risk behaviors

- High risk periods for substance use = school transitions

Source: http://www.who.int/maternal_child_adolescent/topics/adolescence/dev/en/

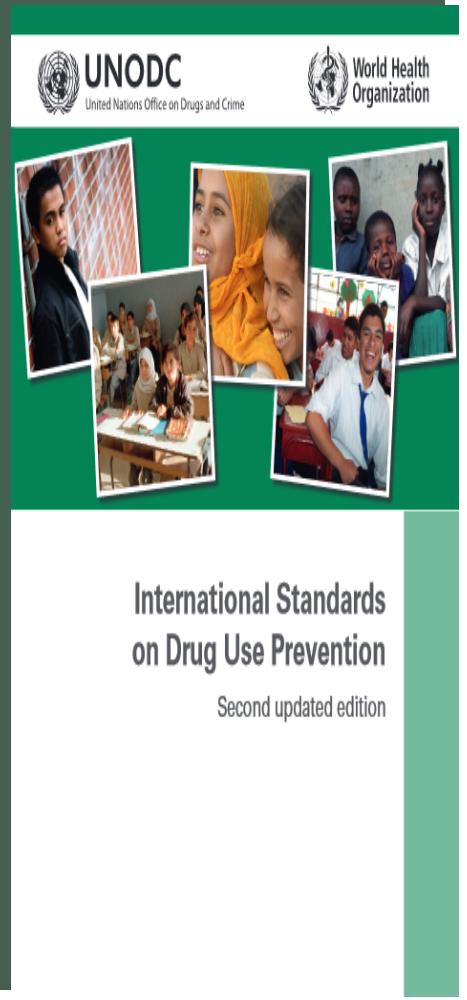
Adolescents: Risk and Resilience

- Early adolescent substance use greatly increases the risk for life-long substance use disorders
- The single best predictor of a youth becoming dependent on substances is having family members who use substances or where there is a family history of substance use problems
- Perceived prevalence of use by friends and attaching to a peer group that uses drugs are strong predictors of doesn't drug use
- http://www.camh.ca/en/education/teachers_school_programs/secondary_education/Pages/curriculum_riskprotect.aspx

What Works for Prevention?

Characteristics of parenting skills programmes deemed to be associated with efficacy and/or effectiveness based on expert consultation

- ✓They enhance family bonding
- ✓They support parents by showing them how to take a more active role in their children's lives, e.g., monitoring their activities and friendships, and being involved in their learning and education.
- ✓They show parents how to provide positive and developmentally appropriate discipline.
- ✓They show parents how to be a role model for their children and make it easy to take part
- ✓They typically include a series of sessions
- ✓They typically include activities for the parents, the children and the whole family.
- ✓They are delivered by trained individuals, in many cases without any other formal qualification.



Women Through the Lifespan

Girls

Women

Pregnant/Post-Pregnancy

Older

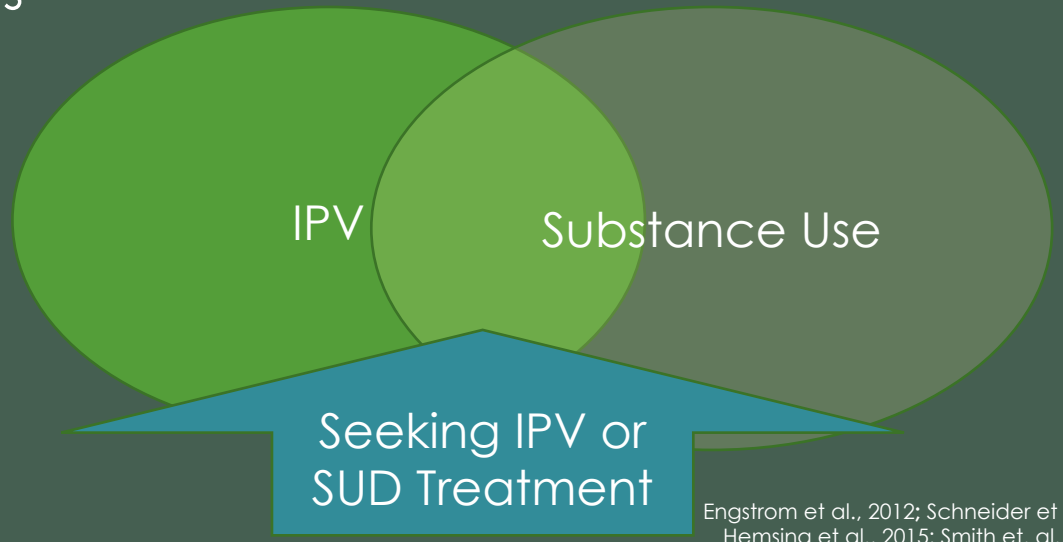
Young Adult Women's Prevention and Treatment Needs

- **Sexual health education and access to contraceptives**
- **Some women respond to Brief Intervention**
- **Co-occurring disorders**
- **Relationship status**
- **Economic and child care responsibilities**

Source: Gerassi LB. Behav Med 2018 Jul-Sep;44(3):199-208.; Hardy R et al., Appetite. 2018 Jan 1;120:367-373.

Interpersonal Violence (IPV), Trauma, and Substance Use: Interconnected

- **IPV and lifetime trauma have significant mental health and substance use-related effects**
  - High rates of chronic pain, depression, Post Traumatic Stress Disorder, substance use, suicidality; High Adverse Childhood Events increased risk of injection drug use and overdoses



Engstrom et al., 2012; Schneider et al,, 2009; Downs 2001; Wagner et al., 2009; Bennett et al.,1994; Hemsing et al., 2015; Smith et. al., 2012; LaFlair et al., 2012; Bueller et al., 2014; Eby, 2004; Ogle et al.,2003; Lipsky et al., 2008; Breiding et al., 2014; Nuttrock et al., 2014; Nathanson et al., 2012;

Young Adult Considerations: Involving the Partner in Prevention and Treatment

Primary consideration should be given to her safety and to the partner's willingness to participate in treatment.

- History of violence
- History of substance use in the relationship
- Accessibility
- History of mental illness
- Commitment to relationship

- What about children?

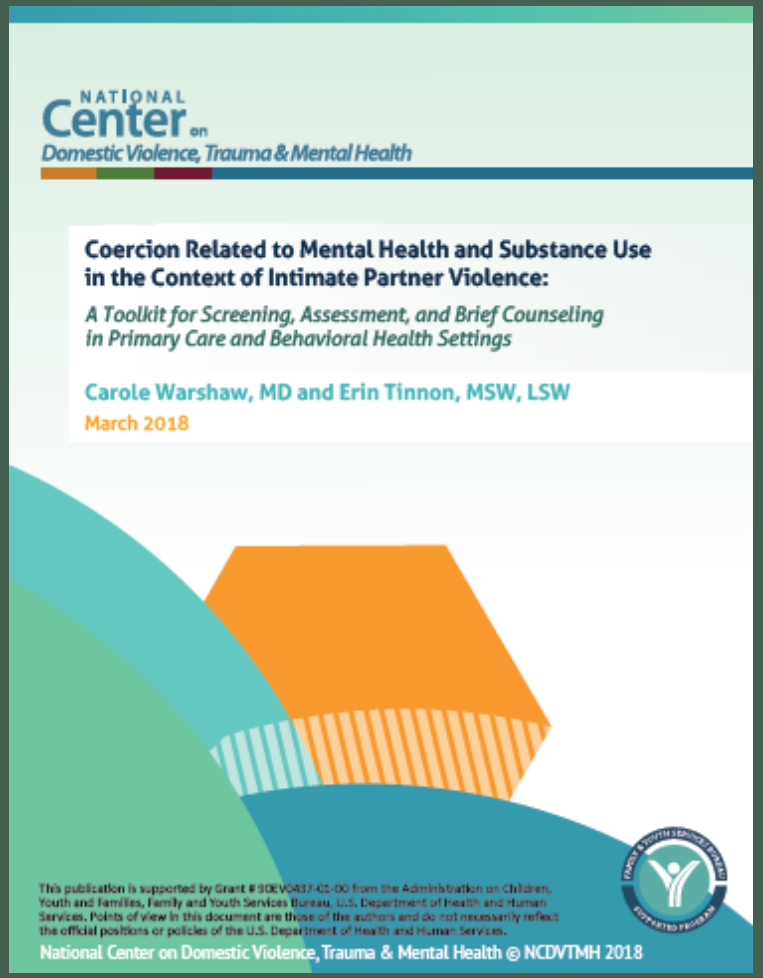
- What are career or other vocation and economic independence options?

Coercion

- 74% said their partner had done things to make them feel crazy
- 50% of women with substance use disorders said that their partner discourages or prevented them from getting help or taking medications

How providers should respond

- Ask
- Respond (acknowledge and offer resources)
- Coping and Emotional Safety



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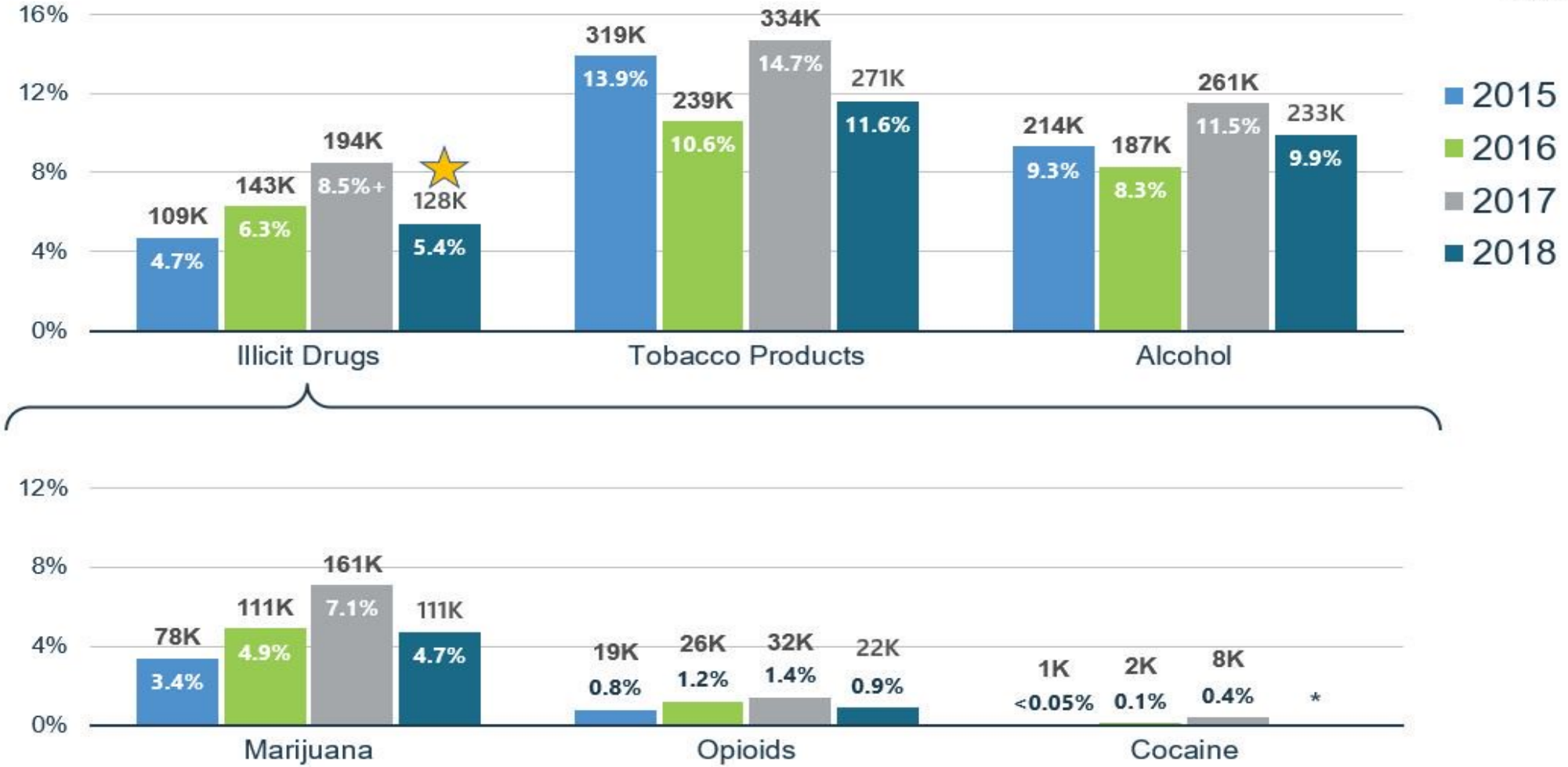
Past Month Substance Use among Pregnant Women

PAST MONTH, 2015-2018 NSDUH, 15-44



* Estimate not shown due to low precision.

\+ Difference between this estimate and the 2018 estimate is statistically significant at the .05 level.

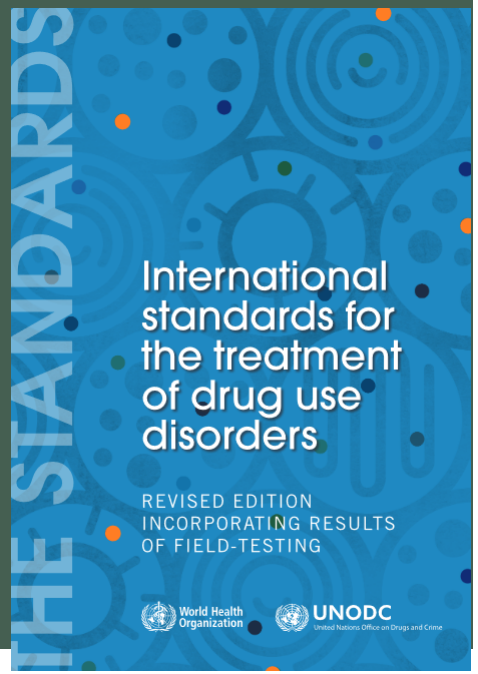
SAMHSA
Substance Abuse and Mental Health Services Administration

Pregnancy: A Unique Opportunity

- Women with substance use often FEAR healthcare
- Brief Intervention can prevent or reduce substance use
- Prenatal care improves birth outcomes even if substance use continues
- Untreated substance use disorders among either parent may lead to a dysfunctional home environment and may create detrimental effects on children's psychological growth and development
- Maternal well-being has been recognized as a key determinant of the health of the next generation

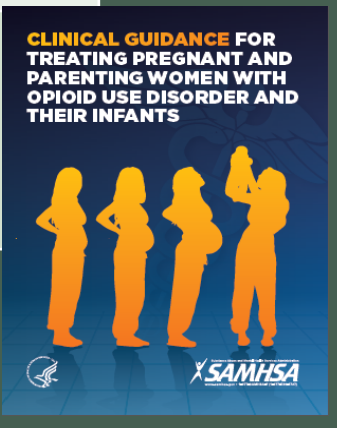
International Treatment Standards

- Medication assisted withdrawal is not recommended during pregnancy
- Buprenorphine and methadone are the safest medications for managing opioid use disorder during pregnancy
- Transitioning from methadone to buprenorphine or from buprenorphine to methadone during pregnancy is not recommended
- Breastfeeding is recommended for women on buprenorphine and methadone
- Neonatal abstinence syndrome (NAS) is an expected and treatable condition



Methadone and Buprenorphine: Advantages

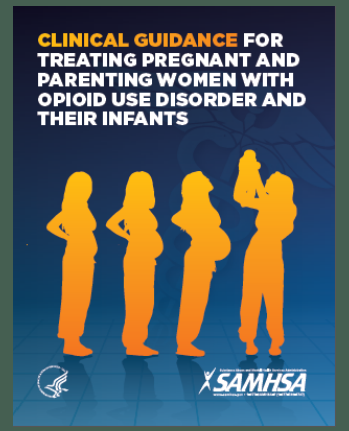
	Methadone	Buprenorphine
Advantages		
Reduces/eliminates cravings for opioid drugs	●	●
Prevents onset of withdrawal for 24 hours	●	●
Blocks the effects of other opioids	●	●
Promotes increased physical and emotional health	●	●
Higher treatment retention than other treatments	●	
Lower risk of overdose Fewer drug interactions Office-based treatment delivery Shorter NAS course		●



Methadone and Buprenorphine: Disadvantages

- Methadone Disadvantages
  - ❑ Achieving stable dose could take days to weeks
  - ❑ Increased risk of overdose
  - ❑ Usually requires daily visits to federally certified opioid treatment programs
  - ❑ Longer neonatal abstinence syndrome (NAS) duration than other treatments

- Buprenorphine Disadvantages
  - ❑ Demonstrated clinical withdrawal symptoms
  - ❑ Increased risk of diversion



Defining Neonatal Abstinence Syndrome (NAS)

Results when a pregnant woman regularly uses opioids (e.g., heroin, oxycodone) during pregnancy

NAS defined by alterations in the:

- ***Central nervous system***
  - **high-pitched crying, irritability**
  - **exaggerated reflexes, tremors and tight muscles**
  - **sleep disturbances**
- ***Autonomic nervous system***
  - **sweating, fever, yawning, and sneezing**
- ***Gastrointestinal distress***
  - **poor feeding, vomiting and loose stools**
- ***Signs of respiratory distress***
  - **nasal congestion and rapid breathing**

- **NAS is *not* Fetal Alcohol Syndrome (FAS) only FAS has confirmed long term physical, cognitive and behavioral effects**
- **NAS is treatable**
- **NAS and its treatment are not known to have long-term effects; interactions between the caregiver and child can impact resiliency/risk with potential long-term effects in some cases.**

Source: Finnegan et al., *Addict Dis,* 1975; Desmond & Wilson, *Addict Dis,* 1975; Jones & Fielder, *Preventive Medicine,* 2015.

NAS is Not Addiction

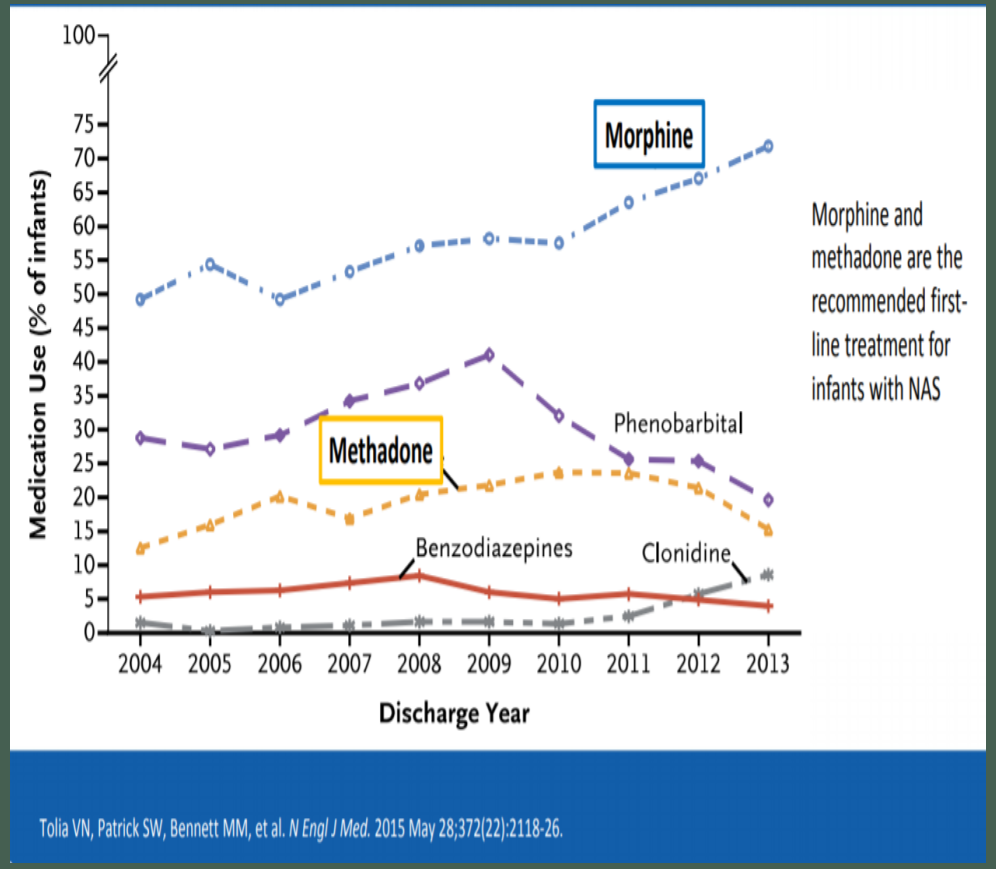
- Newborns can't be "born addicted"
- NAS is withdrawal – due to physical dependence
- Physical dependence is not addiction
- Addiction is a brain illness whose visible signs are behaviors
- Newborns do not have the life duration or experience to meet the addiction definition

Source: Jones & Fielder, *Preventive Medicine,* 2015.

NAS Factors

Other factors that contribute to NAS, need for medication, and length of stay in neonates exposed to opioid agonists in utero:

- Presence of a protocol
- NICU setting
- The NAS assessment choice
- NAS medication choice (methadone and buprenorphine gaining attention)
- Initiation and weaning protocols
- Breastfeeding
- Mother and baby together



Source: Kaltenbach et al., *Addiction*, 2012; Jansson and Velez, *Curr Opin Pediatrics*, 2012; Hall ES et al., *Pediatrics*, 2014; Patrick S et al., *Pediatrics*, 2016; Davis JM, et al. *JAMA Pediatr*, 2018; Kraft WK, et al. *N Engl J Med*, 2017

Mother-Child Support

- Delivery is a life changing event
- Work with caregiver and infant *together*
- Point out signs the infant is orienting to the caregiver (turning head to caregiver's voice, soothing at caregiver heartbeat, etc.)
- Provide specific infant development information that supports attachment (such as eye development, grasp reflex, etc.)
- Ask caregiver what positive memories they want the infant have as he/she grows up.
- Discuss co-regulation (i.e., the infant calms when caregiver calms)

UNC Horizons: Model of Care for Women and Children

Unified Philosophy Informed by Social Learning, Relationship and Empowerment Theories

Medication Assisted Treatment

- Trauma and SUD Treatment
- Residential and/or Outpatient Care
- Childcare and Transportation
- Medical Care OB/GYN Psychiatry
- Vocational Rehabilitation Housing Legal aid
- Parenting Education and Early Intervention

2018 Served 235 women

- 70% Primary OUD; 13% alcohol
- Mean age first substance use 15 years old (as early as 5 yrs)
- 25% reported prior TBI
- Babies born at term and normal birth weight
- 73% employed at completion
- 95% CPS outcomes were positive at completion

Women Through the Lifespan

Girls

Women

Pregnant/Post-Pregnancy

Older

Older Women: Special Issues

Life Changes Leading To Substance Use

- **"Empty nest"**
- **Marital problems**
- **Social isolation**
- **Death of spouse/partner**
- **Medical, psychiatric illness or cognitive issues**
- **Substance use disorders in the family**
- **Problematic drug use had been incorrectly assumed to end as patients age**

Source: Royal College of Psychiatrists. Substance Misuse in Older People: An Information Guide. Cross-Faculty Report OA/AP/01. April 2015. http://www.rcpsych.ac.uk/pdf/Substance%20misuse%20in%20Older%20People_an%20information%20guide.pdf

Source: Royal College of Psychiatrists. Substance Misuse in Older People: An Information Guide. Cross-Faculty Report OA/AP/01. April 2015. http://www.rcpsych.ac.uk/pdf/Substance%20misuse%20in%20Older%20People_an%20information%20guide.pdf

SAMHSA. Substance Abuse Among Older Adults. http://store.samhsa.gov/product/TIP-26-Substance-Abuse-Among-Older-Adults/SMA12-3918;http://www.hazeldenbettyford.org/articles/research/older-adults-and-addiction; Epstein et al. 2007.

Carew and Comiskey. Drug and Alcohol Dependence 182,48–57, 2018

Older Adults: Treatment

- Research shows older women in treatment are more likely to complete treatment and have outcomes as good or better than younger adults (or male peers)
- There is no evidence that older women have a need for individual approaches
- Older women may benefit and contribute to group processes

Source: Royal College of Psychiatrists. Substance Misuse in Older People: An Information Guide. Cross-Faculty Report OA/AP/01. April 2015. http://www.rcpsych.ac.uk/pdf/Substance%20misuse%20in%20Older%20People_an%20information%20guide.pdf
Carew and Comiskey. Drug and Alcohol Dependence 182,48–57, 2018

Prevention and Treatment

Final Thoughts from Patients in Treatment: What Providers Need to Know

• Girls say	Believe me when I tell you what happened to me and keep me safe; I need you to see the good in me
• Teen girls say	Don't treat us like we are kids, we have lived a lot of life in a short time; help us make a future and tell us what you like about us
• Pregnant people say	There is nothing you can say to us that is more hurtful than what we have already said to ourselves; build us up don't tear us down Help us be the best parents we can be- don't tell but show us *how*
• Older women say	See me a having potential, hear me and help me; I am lonely and need connection and purpose

Key Documents

Professional Development

ISSUP INTERNATIONAL SOCIETY OF SUBSTANCE USE PROFESSIONALS

QUESTIONS?

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