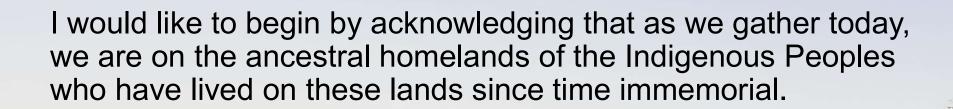
Focus on Methamphetamine

Thursday, June 12, 2025



CENTER FOR COMMUNITY-ENGAGED DRUG EDUCATION, EPIDEMIOLOGY, AND RESEARCH





Please join me in expressing our deepest respect and gratitude for our Indigenous neighbors.



Objectives



Raise awareness of the use and impact of methamphetamine use in WA State, especially in the context of opioid use and overdose.



Generate conversations to promote understanding and new ideas.

Thank you to WA State Health Care Authority/Division of Behavioral Health and Recovery for funding and support of this event.



Agenda: Morning

9:00 Opening

9:15 Meth Use in WA State

9:55 *Break*

10:00 No Single Path: Personal Stories

10:55 *Break*

11:05 Harm Reduction Pro Tips!

11:55 *Lunch*





Agenda: Afternoon

12:45 Treatment Medications for Stimulant Use D

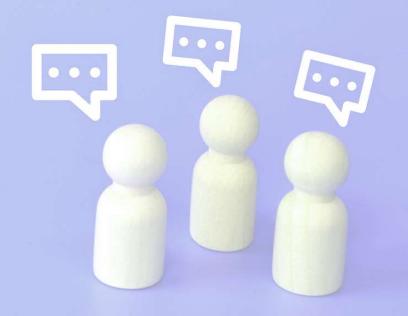
1:15 *Break*

1:20 Contingency Management in Non-Treatment Settings

2:15 *Break*

2:20 Whole Person Health Care

3:15 Closing

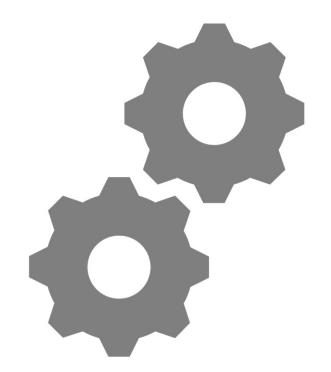




Housekeeping

- We are using "webinar mode"

 Presenters are onscreen while audience is offcamera and muted.
- Submit questions in the Q&A box
 If presenters can't respond during sessions, we'll try
 to get written responses after.
- Sessions will be recorded and posted with resources at: adai.uw.edu/methsummit2025







Meth Use in WA State:

Blending data and first-person perspectives

Bryan Sturgill, Gather Community Services
Caleb Banta-Green, UW ADAI CEDEER



Introduction

- Background information and data (Caleb)
 Real-world context (Bryan)
 - How and why people are using it
 - What's in the meth
 - "Over-amping" and mortality/"overdose"
- Implications for services and supports



Why Are We Seeing More Impacts?

- Supply side: high availability, low cost
- Demand side: many of the reasons that people use meth have increased in recent years
 - Functioning multiple jobs/demands
 - Lack of housing
 - Untreated mental health
 - Trauma
 - Lack of jobs/poverty

There's a lot of meth and a lot of reasons people use meth



Meth Dependency

Meth dependency is like being stuck between:

Stress of being on meth:

- Guilt/shame
- Erratic behavior: showing up late to work, just not showing up
- Lack of productivity, motivation
- Legal and parenting issues (CPS)
- Psychosis
- Loss of meaningful relationships
- Physical and mental health issues
- Hypersexuality

Stress of NOT being on meth:

- Anxiety
- Hopelessness
- Lethargy
- Inability to feel pleasure or motivation
- Post-acute withdrawal syndrome
- Weight gain

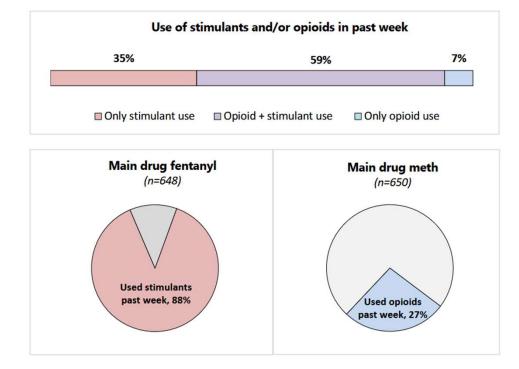
These are temporary & improve over time, especially with supports. But may cause a person to return to use.



Meth +/- Fentanyl Use

Data from 2023 WA State Syringe Services Program Participant Health Survey:

- Very high proportion using both meth and fentanyl
- Why and how they are used together varies:
 - Those on fentanyl may use meth to get stuff done or they hope it'll prevent an OD
 - Those on meth may use fentanyl to sleep or come down



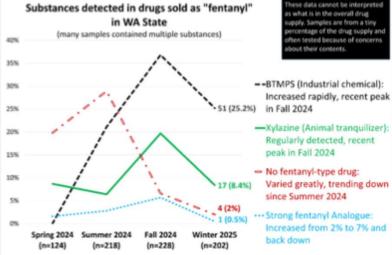


Drug Checking

- Fentanyl supply is highly variable & changes quickly
- Drugs sold as meth are usually meth & nothing else (purity unknown)
- White powder or crystals could be fentanyl or meth - can't tell by appearance

adai.uw.edu/WAdata/DrugChecking

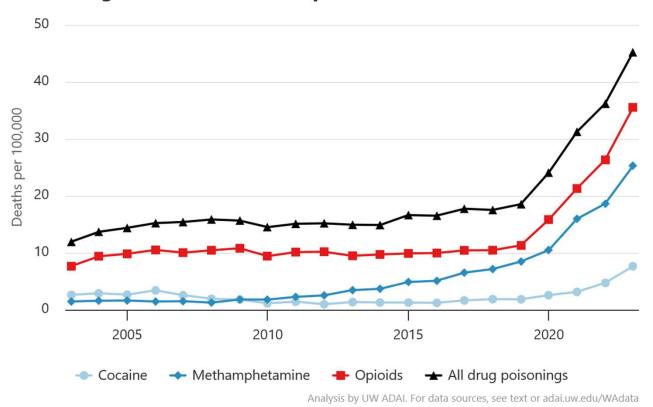






Drug-Caused Deaths: WA State

Drug-caused death rates per 100,000 state residents



All drugs

Opioids

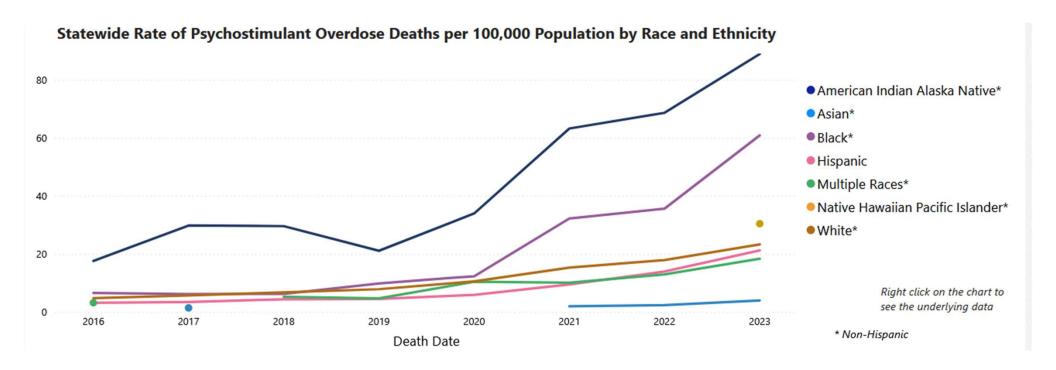
Methamphetamine

Cocaine

Long term pattern shows huge increase in all overdose deaths, driven by unregulated fentanyl.



WA State Meth "Overdose" Deaths

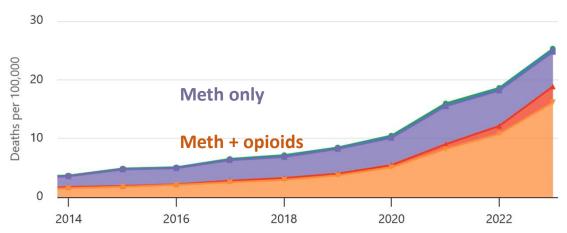


https://doh.wa.gov/data-and-statistical-reports/washington-tracking-network-wtn/opioids/overdose-dashboard



Meth-Involved "Overdoses"

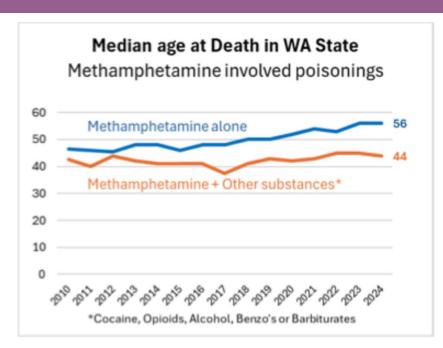




Meth involved deaths have increased:

- As the only drug
- In combination with opioids/fentanyl

2024: Of 1,934 meth-involved deaths, 526 had no other drug present



Those dying from meth-only deaths:

- Have gotten older
- Are much older than meth + other



Overdose Death Data Summary

- Fentanyl has driven the increase in deaths over the past decade
- Large increases in meth-involved deaths
- Meth-only deaths seem different than meth+opioid deaths:
 - Meth-only deaths = 23% of deaths in recent years
 - Meth-only death median age of 56 is much higher than meth+other drugs median age 44
 - Age of meth-involved deaths has increased steadily over time
 - Role of chronic diseases that increase with age and meth use (e.g., cardiovascular)?



Health Care

What health care providers could share:

- Massively high blood pressure
 - Compared to what? What could actually happen? (e.g., stroke out, high risk or low risk, sooner or later)

Cellulitis

- What does that mean? What is happening to the tissue? What else could happen if left untreated or not reducing injection or drug use (e.g., blood clots, MRSA)
- How did I get it? What are possible outcomes?





Health Care

What health care providers could share:

- Conversations could potentially motivate change IF you fully understand the causes and consequences
- Don't give up just because you don't see immediate change

I don't need you to scare me.
But I do need good information that I can understand.



Drug Use and Desire to Reduce Use

 People who use drugs share their expertise and insights via syringe service program participant surveys and qualitative interviews in

alternating years.



Unmet Needs, Complex Motivations, and Ideal Care for People Using Fentanyl in Washington State:

A Qualitative Study

Teresa Winstead, PhD, MA: Alison Newman, MPH; Everett Maroon, MPHc; Caleb Banta-Green, PhD, MPH, MSW

Key Findings

In our interviews (n=30) with people who use fentanyl at four Washington State (WA) syringe services programs (SSPs), participants discussed the rapid change in the drug supply from heroin to fentanyl and how this affected their substance use.

 2023 SSP survey and 2024 permanent supportive housing resident & staff surveys online







Implications for Care

- Shared decision making with ongoing engagement/navigation may provide foundation for long term, caring relationship
- Ongoing drop-in access to comprehensive services over an extended period of time is an emerging model of care
- Harm reduction + treatment + health care available
- Gather's low barrier bupe program:
 - Focused on engagement that leads to retention
 - Care navigators make reminder calls and follow up calls when someone misses an appointment
 - Daily attendance isn't perfect, but ongoing engagement rates are very high



Implications for Care

- Heart health and primary care are very important, which can be challenging for marginalized people in the midst of meth use
- When trying to get care, you may not present how you want. May need a space to just chill out, before talking with staff
- Harm reduction as an entry point and ongoing services are critical given the diverse pathways to health and recovery

At Gather...someone may come in with a purpose but unable to express needs clearly due to overamping or fatigue.

Help the client first to feel comfortable enough (chair, water, food) so then they can gather thoughts and express their needs.



Conclusion

- How and why people use meth differs in many ways from opioids.
 Our services need to match these differences
- Initial care services and access points may look different at the community level
- There can be challenges integrating harm reduction, treatment and healthcare
 - Local communities need to figure out how to best work on this
- A broad array of people working in different types of care settings is needed...
 - Health care, SUD treatment, harm reduction, housing...That's you!



Resource Spotlight

Meth Overdose: Know When to Get Help



Meth deaths have **increased 600%** in the last decade in WA State.

Learn more at stopoverdose.org

Watch for these danger signs:

- Super fast heart rate (2-3x faster than normal)
- High body temperature (sweating or hot, dry skin)
- · Really painful headache
- · Chest pain or tightness
- · Can't walk or move
- · Won't wake up
- · Can't feel arms or legs
- Seizure or shaking you can't control





If you see these signs, **call 911** or get medical help right away!

The **Good Samaritan Overdose Law** protects you and the victim from prosecution for drug possession.

Want help to cut down your meth use? Call the Washington Recovery Help Line at 1.866.789.1511



CENTER FOR COMMUNITY-ENGAGED DRUG EDUCATION, EPIDEMIOLOGY, AND RESEARCH



stopoverdose.org/basics/methamphetamine-overdose-overamping





No Single Path: Personal stories on meth use, harm reduction and recovery

August Oliver, Catholic Community Services of Western WA

Jeremy Russell, Peer Seattle

Moderator: Alison Newman, UW ADAI CEDEER



Resource Spotlight

Focus on Meth

Be part of the conversation.

adai.uw.edu/cedeer/focus-on-meth

Webinars, research, resources

- Overdose & ED visits
- Harm reduction
- Drug checking in WA
- Infectious disease
- Meth use among MSM

Stimulant Health Matters Series WA SOR TA

Part 1: Mental health

Part 2: Wound care & skin health

Upcoming:

Part 3: Heart health & monitoring

June 16, 2025, 12-1pm





Harm Reduction Pro Tips!

Sam Carroll, Spokane Regional Health District
Christina Muller-Shinn, Mason County Public Health
Peter Cleary, Project NEON

Moderator: Susan Kingston, *UW ADAI*



Resource Spotlight

What's New in Harm Reduction Research: Methamphetamine Research papers & reports

adai.uw.edu/hrr-202502

Methamphetamine: Practical Strategies for Harm Reduction and Client Engagement Recorded webinar & slides

tinyurl.com/MethWebinar2021-1

what's new in harm reduction research





Methamphetamine

Practical Strategies for Harm Reduction and Client Engagement

Peter Cleary, Susan Kington, & Alison Newman January 19, 2021

ADAI



W



Treatment Medications for Stimulant Use Disorder

Jonathan Buchholz, MD

Director, Addiction Consultation Service, VA Puget Sound Assistant Professor and Director, Addiction Psychiatry Fellowship, UW Psychiatry



Disclosures

Honorarium – "Opioid Use Disorder in Veterans: An Expert's Experience Prioritizing Medication for Treatment." AMSUS Annual Meeting. March 3rd, 2025. National Harbor, Maryland. Indivior Pharmaceuticals





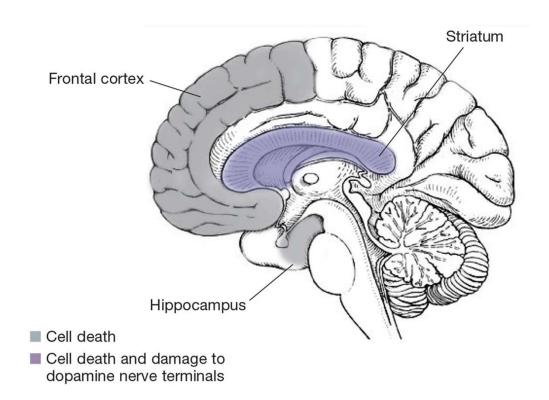
Review medications for methamphetamine use disorder

- Systematic reviews/Meta analyses
- Individual medications with promise



Methamphetamine Neurotoxicity

- Meth→ ROS → neuron damage
- Less damage on 5-HT system
- Dose-dependent destruction of striatal dopamine nerve terminals
- Behavior changes partially reversible with time





Medications

- No FDA-approved medications
- Medications with evidence:
 - Psychostimulants
 - Naltrexone
 - Mirtazapine
 - Buproprion +Naltrexone

Dozens of medications with a variety of mechanisms have been studied:

Aripiprazole, baclofen, bupropion, buspirone, citicoline, creatine, dextro-amphethamine, dextro-methamphetamine, gabapentin, ibudilast, methylphenidate, mirtazapine, modafinil, N-acetyl cysteine, naltrexone, ondansetron, perindopril, pexacerfont, prazosin, sertraline, risperidone, rivastigmine, topiramate, varenicline, vigabatrin, vortioextine



Medications

Psychostimulants for stimulant use disorder (cocaine, methamphetamine)

- Systematic review and Meta Analysis
 -Tardelli et. al. 2020
- 38 trials included, 2889 patients, Randomized, double-blind, placebo controlled, parallel-design for cocaine and amphetamine UD
- Engagement not improved

	Psychostim	ulants	Place	bo		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% CI
1.6.1 Cocaine							
Anderson 2009	83	136	42	71	6.2%	1.03 [0.82, 1.31]	+
Dackis 2005	19	30	21	32	2.9%	0.97 [0.67, 1.40]	+
Dackis 2012	83	135	37	75	5.1%	1.25 [0.96, 1.63]	 •
Dürsteler-MacFarland 2013	18	30	26	32	3.4%	0.74 [0.53, 1.03]	
Grabowski 1994	3	4	3	3	0.9%	0.80 [0.40, 1.58]	
Grabowski 1997	12	25	12	24	1.3%	0.96 [0.54, 1.70]	
Grabowski 2001	23	93	8	35	0.9%	1.08 [0.53, 2.19]	
Grabowski 2004	24	54	10	40	1.1%	1.78 [0.96, 3.29]	
Kampman 2015	34	47	37	47	6.4%	0.92 [0.73, 1.16]	+
Levin 2007	23	53	24	53	2.2%	0.96 [0.63, 1.47]	+
Levin 2015	64	83	29	43	6.0%	1.14 [0.90, 1.45]	+
Levin 2019	42	64	37	63	4.9%	1.12 [0.85, 1.47]	-
Mariani 2012	29	39	35	42	6.5%	0.89 [0.71, 1.12]	- +
Mooney 2009	17	55	8	27	0.9%	1.04 [0.52, 2.11]	
Mooney 2015	12	22	15	21	1.9%	0.76 [0.48, 1.22]	
NCT00142818 (Kampman)	52	82	39	82	4.6%	1.33 [1.01, 1.77]	-
NCT00218036 (Schmitz)	9	17	3	9	0.4%	1.59 [0.57, 4.43]	
NCT00218387 (Malcolm)	50	83	17	40	2.5%	1.42 [0.95, 2.12]	
NCT00838981 (Sofuoglu)	30	45	28	46	3.9%	1.10 [0.80, 1.49]	+
Nuijten 2016	34	38	31	35	10.5%	1.01 [0.86, 1.19]	+
Schmitz 2012	7	22	3	16	0.3%	1.70 [0.52, 5.57]	
Schmitz 2012	4	20	3	16	0.2%	1.07 [0.28, 4.09]	
Schmitz 2014	9	22	11	18	1.1%	0.67 [0.36, 1.25]	
Schubiner 2002	11	24	14	24	1.4%	0.79 [0.45, 1.36]	
Shearer 2003	6	16	5	14	0.5%	1.05 [0.41, 2.70]	
Subtotal (95% CI)		1239		908	75.8%	1.03 [0.96, 1.11]	•
Total events	698		498				
Heterogeneity: Tau² = 0.00; C	hi² = 25.76, df	= 24 (P =	0.37); 12:	= 7%			
Test for overall effect: Z = 0.86	(P = 0.39)						
1.6.2 Amphetamine							
Anderson 2012	76	142	36	68	4.9%	1.01 [0.77, 1.33]	+
Galloway 2011	26	30	25	30	7.2%	1.04 [0.84, 1.29]	+
Heinzerling 2010	14	34	13	37	1.2%	1.17 [0.65, 2.12]	
Constenius 2010	7	12	10	12	1.4%	0.70 [0.41, 1.20]	
Konstenius 2014	10	27	4	27	0.4%	2.50 [0.89, 7.00]	
Ling 2014	29	55	31	55	3.3%	0.94 [0.66, 1.32]	+
Longo 2010	15	23	8	26	1.0%	2.12 [1.11, 4.06]	
Miles 2013	17	39	10	39	1.0%	1.70 [0.89, 3.23]	
NCT00859573 (Mancino)	1	6	1	3	0.1%	0.50 [0.05, 5.51]	
Rezaei 2015	18	28	16	28	2.3%	1.13 [0.74, 1.72]	+
Shearer 2009	11	38	15	42	1.0%	0.81 [0.43, 1.54]	
Tiihonen 2007	6	17	4	17	0.4%	1.50 [0.51, 4.38]	
Subtotal (95% CI)		451		384	24.2%	1.08 [0.93, 1.27]	*
Total events	230		173				
Heterogeneity: Tau ² = 0.02; C	hi ² = 14.19, df	= 11 (P =	0.22); 12:	= 22%			
Test for overall effect: Z = 0.99							
		1690		1292	100.0%	1.04 [0.97, 1.11]	•
Total (95% CI)							
Total (95% CI) Total events	928		671			,,	



Medications

Psychostimulants for amphetamine-like stimulants

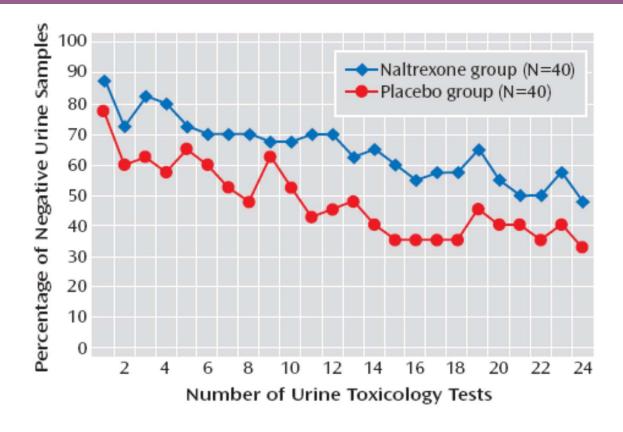
- Sharafi et al. Addiction. 2024. Systematic review and Meta Analysis
- Removed modafinil and bupropion from analyses
- Ten RCTs (n = 561 participants)

Results:

- No robust differences on initial comparisons.
- Subgroup analysis
 - High dose methylphenidate >162mg superior to lower dose methylphenidate or dextroamphetamine
 - # of UAs positive for amphetamines
 - Engagement in treatment
- ADHD co-occurrence in positive studies
 - Gen. max dosing for ADHD alone is 108mg (methylphenidate) and 50mg (dextroamphetamine)



Naltrexone for Methamphetamine



Jayaram-Lindstrom et al, Am Journal of Psychiatry, 2008



Mirtazapine for Methamphetamine

Colfax et al 2011

 Mirtazapine 30mg led to small but significant reduction in positive weekly urine samples (from 73% to 44%) over 12 weeks.

Coffin 2020

 Mirtazapine 30mg led to small but significant reduction in positive weekly urines at 24 and 36 weeks



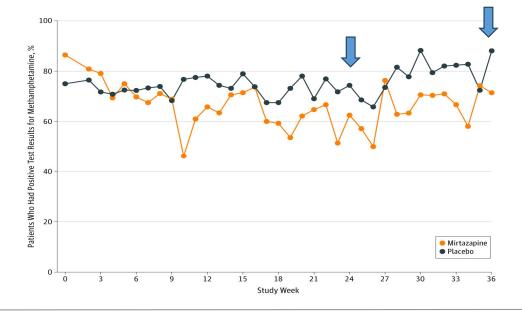
Mirtazapine for Methamphetamine



From: Effects of Mirtazapine for Methamphetamine Use Disorder Among Cisgender Men and Transgender Women Who Have Sex With Men: A Placebo-Controlled Randomized Clinical Trial

JAMA Psychiatry. 2020;77(3):246-255. doi:10.1001/jamapsychiatry.2019.3655

Figure legend:
Proportion of participants
with positive urine test
results for meth during
follow-up, by arm



Date of download: 6/5/2025

Copyright 2019 American Medical Association. All Rights Reserved.



Bupropion and Naltrexone for Methamphetamine

- **12-week study**, 403 participants, randomized, double-blind trial, sequential parallel comparison design.
- 13.6% of the group receiving 380mg naltrexone-XR plus 450mg bupropion-XR versus 2.5% of the placebo group had at least three methamphetamine-negative urine samples out of four samples at the end of the 6-week trial (an overall treatment effect of 11.1 percentage points).

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Bupropion and Naltrexone in Methamphetamine Use Disorder

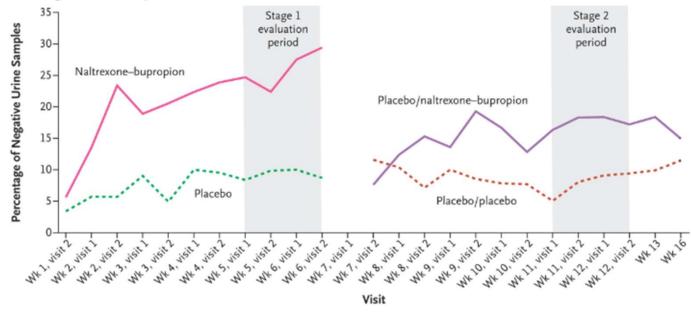
M.H. Trivedi, R. Walker, W. Ling, A. dela Cruz, G. Sharma, T. Carmody, U.E. Ghitza, A. Wahle, M. Kim, K. Shores-Wilson, S. Sparenborg, P. Coffin, J. Schmitz, K. Wiest, G. Bart, S.C. Sonne, S. Wakhlu, A.J. Rush, E.V. Nunes, and S. Shoptaw

- The number needed to treat for one patient to have a response under the assumptions in this trial is 9.
- Adverse events included gastrointestinal disorders, tremor, malaise, hyperhidrosis, and anorexia. Serious adverse events occurred in 8 of 223 participants (3.6%) who received naltrexone—bupropion during the trial.



Bupropion and Naltrexone for Methamphetamine

B Methamphetamine-Negative Urine Samples



No. of Urine Samples Obtained at Each Visi	t				S	tage	1										S	tage	2					
Naltrexone-bupropion	89	96	77	90	73	85	67	81	67	80	68													
Placebo	265	280	229	266	223	260	210	239	203	240	207													
Placebo/naltrexone- bupropion												92	97	85	103	83	96	78	98	82	98	93	98	87
Placebo/placebo												95	106	84	100	82	102	91	99	87	99	85	101	96



Publications

- 1. Tardelli VS, Bisaga A, Arcadepani FB, Gerra G, Levin FR, Fidalgo TM. **Prescription psychostimulants for the treatment of stimulant use disorder: a systematic review and meta-analysis.** Psychopharmacology (Berl). 2020 Aug;237(8):2233-2255. doi: 10.1007/s00213-020-05563-3. Epub 2020 Jun 29. PMID: 32601988.
- 2. Sharafi H, Bakouni H, McAnulty C, Drouin S, Coronado-Montoya S, Bahremand A, Bach P, Ezard N, Le Foll B, Schütz CG, Siefried KJ, Tardelli VS, Ziegler D, Jutras-Aswad D. **Prescription psychostimulants for the treatment of amphetamine-type stimulant use disorder: A systematic review and meta-analysis of randomized placebo-controlled trials.** Addiction. 2024 Feb;119(2):211-224. doi: 10.1111/add.16347. Epub 2023 Oct 25. PMID: 37880829
- 3. Coffin PO, Santos GM, Hern J, Vittinghoff E, Walker JE, Matheson T, Santos D, Colfax G, Batki SL. **Effects of Mirtazapine for Methamphetamine Use Disorder Among Cisgender Men and Transgender Women Who Have Sex With Men: A Placebo-Controlled Randomized Clinical Trial.** JAMA Psychiatry. 2020 Mar 1;77(3):246-255. doi: 10.1001/jamapsychiatry.2019.3655. PMID: 31825466; PMCID: PMC6990973.
- 4. Colfax GN, Santos GM, Das M, Santos DM, Matheson T, Gasper J, Shoptaw S, Vittinghoff E. **Mirtazapine to reduce methamphetamine use: a randomized controlled trial.** Arch Gen Psychiatry. 2011 Nov;68(11):1168-75. doi: 10.1001/archgenpsychiatry.2011.124. PMID: 22065532; PMCID: PMC3437988.
- 5. Trivedi MH, Walker R, Ling W, Dela Cruz A, Sharma G, Carmody T, Ghitza UE, Wahle A, Kim M, Shores-Wilson K, Sparenborg S, Coffin P, Schmitz J, Wiest K, Bart G, Sonne SC, Wakhlu S, Rush AJ, Nunes EV, Shoptaw S. **Bupropion and Naltrexone in Methamphetamine Use Disorder.** N Engl J Med. 2021 Jan 14;384(2):140-153. doi: 10.1056/NEJMoa2020214. PMID: 33497547; PMCID: PMC8111570.





Contingency Management in Non-Treatment Settings

Challenges, Successes, and Pro Tips!



Our Panel

- Liz Fraser, MSW
 Blue Mountain Heart to Heart bluemountainheart2heart.wordpress.com
- Kevin Alvarado
 Lead Peer Support Specialist, Plymouth Housing plymouthhousing.org
- Kate Palmer
 CM Technical Assistance Provider, Plymouth

Moderator: **Sara Parent, ND**Assistant Professor, WSU
prismcollab.org

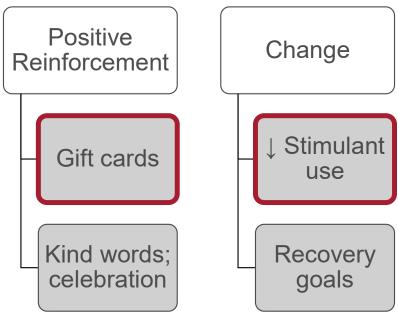




What is Contingency Management?

Contingency Management

A behavioral therapy that uses positive reinforcement to encourage behavior change.





HCA-Funded CM in Washington

Olympic Peninsula Health Services - Port Angeles

Plymouth Housing – Seattle

Ideal Option - Everett

Klickitat Valley Health - Goldendale

Comprehensive Healthcare- Yakima

Family Health Centers- Omak

Providence - Kettle Falls

Providence - Colville

MultiCare Rockwood - Spokane

Newport Health Center – Newport

Email: HCASupportedCM@hca.wa.gov





Two CM Protocols

	Plymouth – Permanent Supportive Housing	Blue Mountain Heart to Heart – Harm Reduction/Recovery Support
WHO we're trying to help?	People who use stimulants	People who use stimulants
WHAT is the focus behavior?	Stimulant-negative urine drug tests (UDT)	Stimulant-negative urine tests (UDT)
WHICH type of reward?	Vouchers traded for gift cards or prizes	Gift cards
HOW MUCH of a reward?	\$530 max possible	\$288 max possible
HOW OFTEN are people rewarded?	Twice weekly	Twice weekly
WHEN do people get rewards?	Immediately after UDT, can opt to bank	Immediately after UDT, can opt to bank
HOW LONG does it last?	12 weeks, can be repeated until annual cap	8 weeks, can be repeated twice per year

ADAI
ADDICTIONS, DRUG &



Panel Discussion





Resource Spotlight



Contingency Management in the Wild: Rural Substance Use **Provider Experiences with Evidence-based Practice Targeting Stimulant Use**



EDUCATION RESOURCES CONTACT



EARN NAADAC CONTINUING EDUCATION CREDITS

You can now earn 1 hour of continuing education credit by watching an on-demand training and completing a content-assessment. Click on 'view webinar' below any on-demand training below to get started.

Brought to you in collaboration with PRISM Collaborative.

ON-DEMAND TRAININGS

Below is a list of on-demand NW ROTA C training available for viewing at any time. To view recorded trainings, you will be required to register prior to viewing.



substance use before it



use on individuals



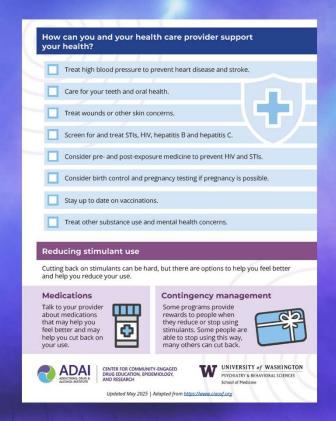
use disorders





Resource Spotlight





learnabouttreatment.org/treatment/treatment-for-stimulant-use-disorder



Focus on Meth Be part of the conversation.

Whole Person Health Care with People Who Use Meth

Sarah Leyde, MD, UW Medicine/Harborview Mark Duncan, MD, UW Medicine LeiLani Dawn, UW ADAI

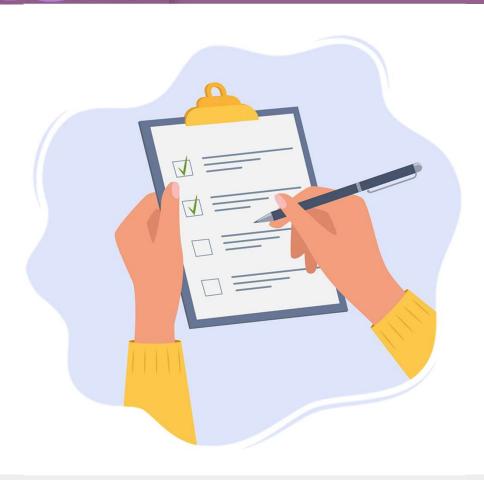
Moderator: Maureen Oscadal, UW ADAI



Wrap-Up THE THE TANKS OF THE PARTY OF T \$ NESIGLA



Thank You



Thank you for joining us today!

Please take our post-event survey to help shape future events: https://www.surveymonkey.com/r/FoM25

