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WA Family Pathways
Conference May 2017

Beyond the tip of the iceberg.

Understanding ice use and its consequences

Professor Nicole Lee

 **@DrNicoleLee**



Dr. Nicole

30%-100%

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'Amphetamines'

Methamphetamine

Amphetamine

Dexamphetamine

Other pharmaceuticals...

'Speed'



'Base'



'Ice'



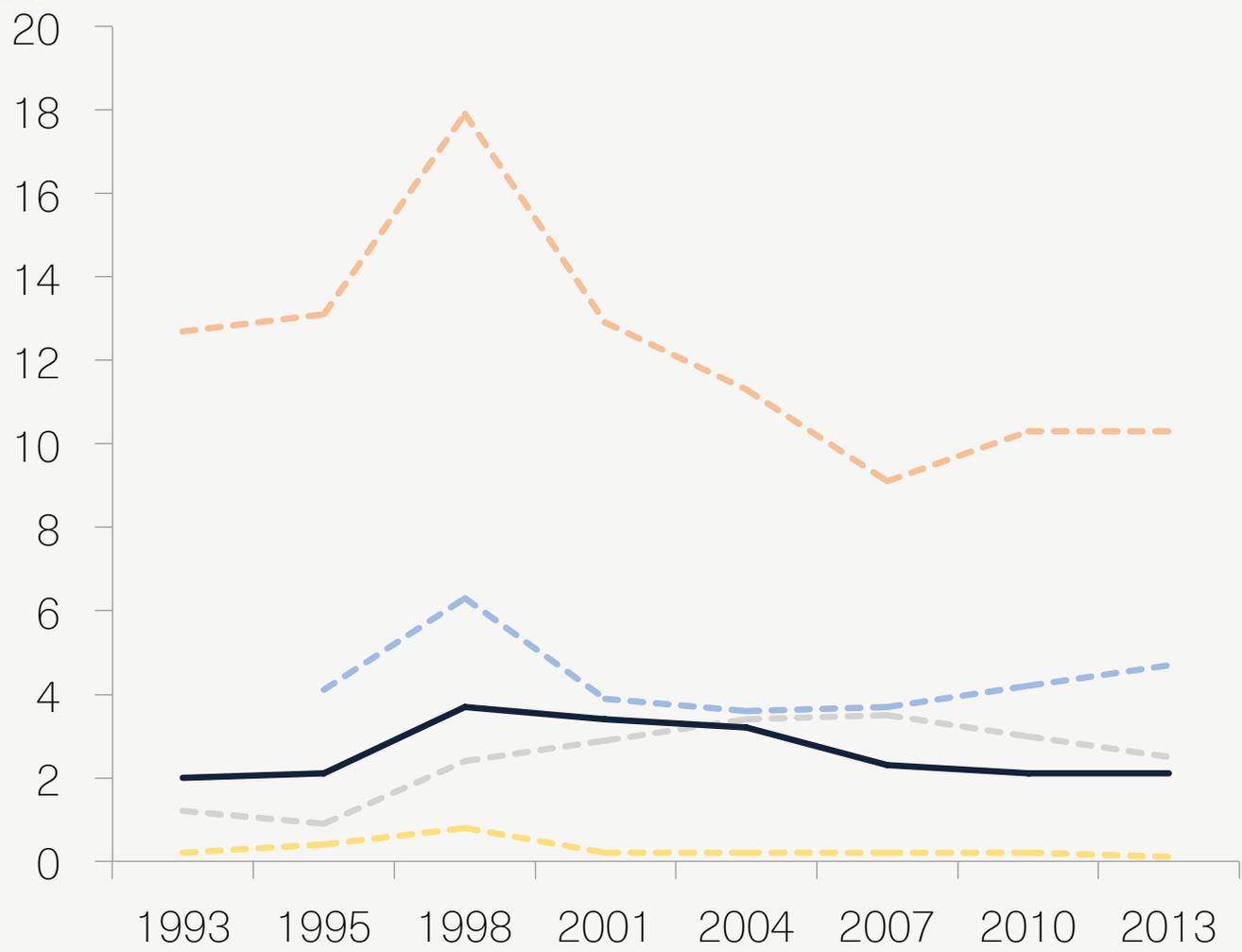
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Switch to purer form
Frequency up
Price down
Purity up





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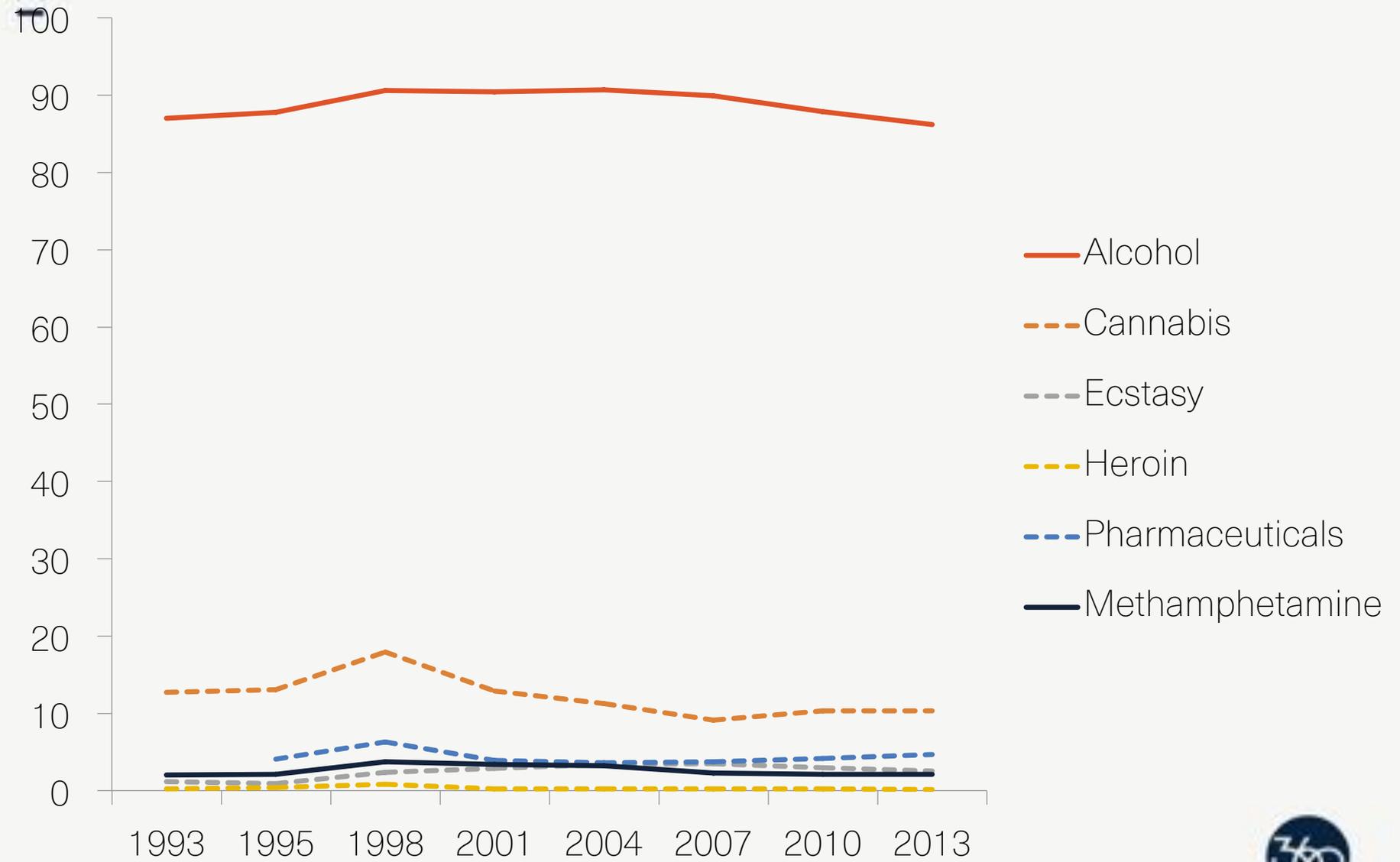
- Cannabis
- Ecstasy
- Heroin
- Pharmaceuticals
- Methamphetamine



NDSHS, 2014



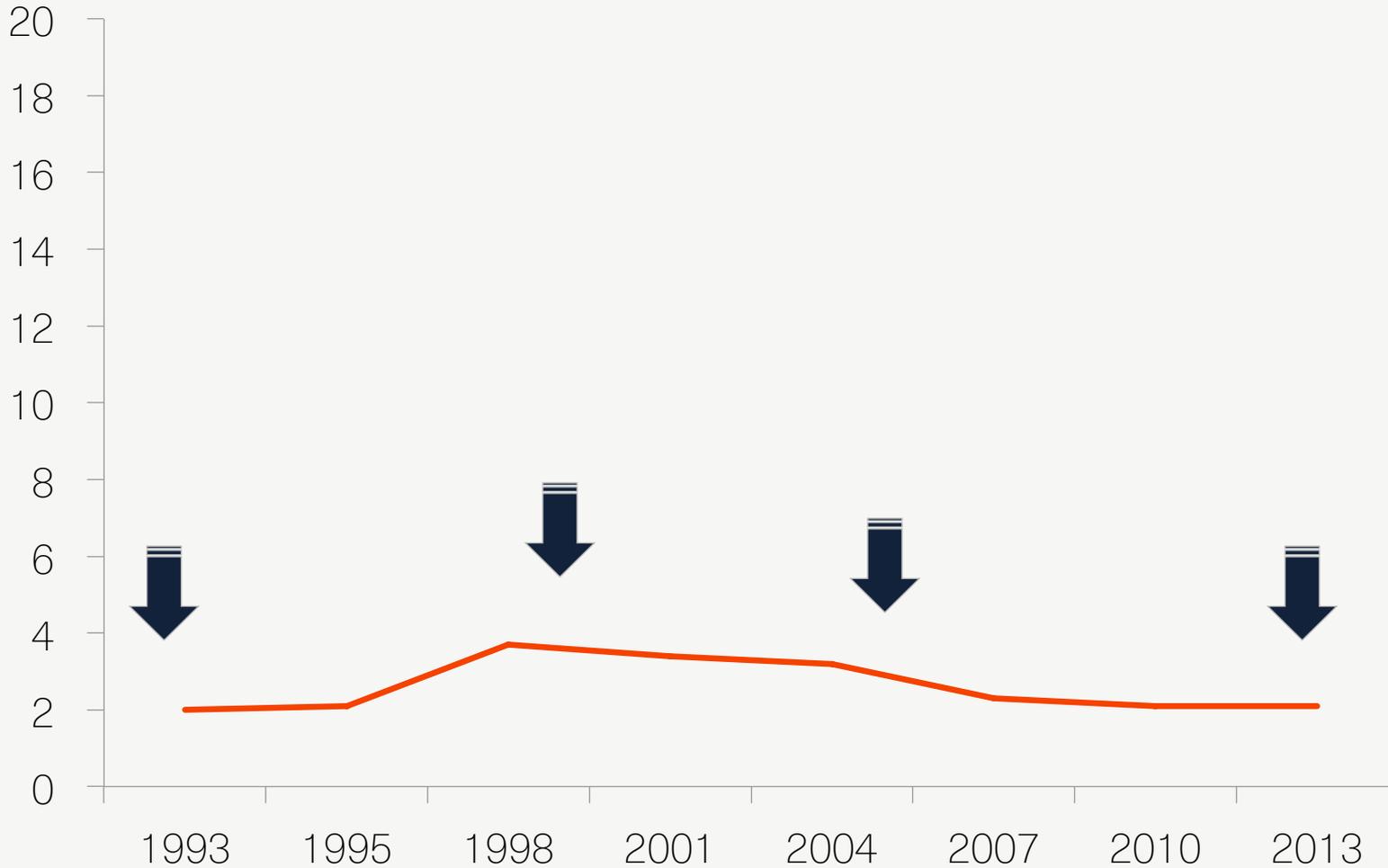
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NDSHS, 2014



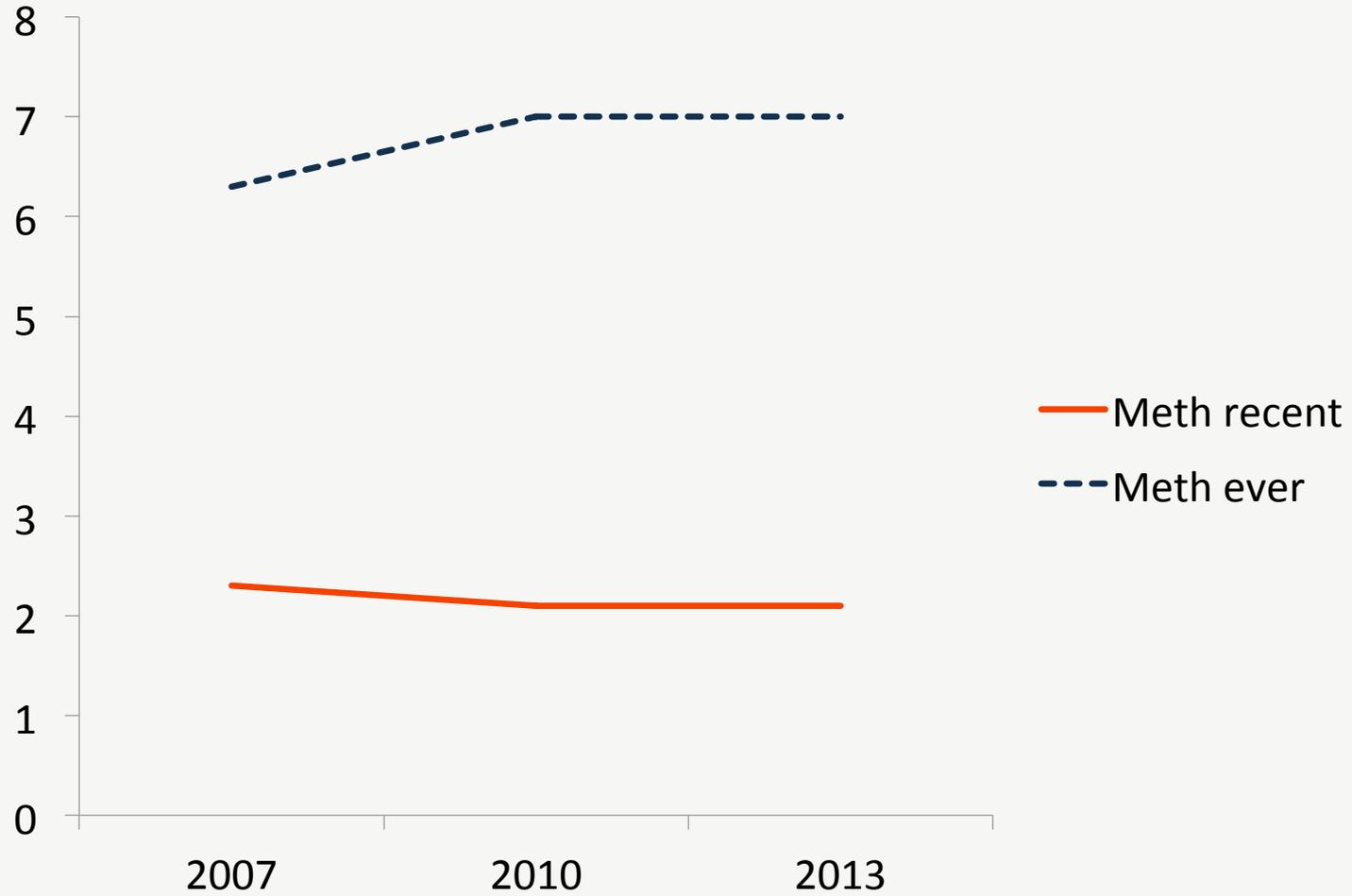
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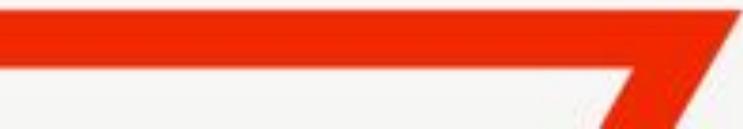
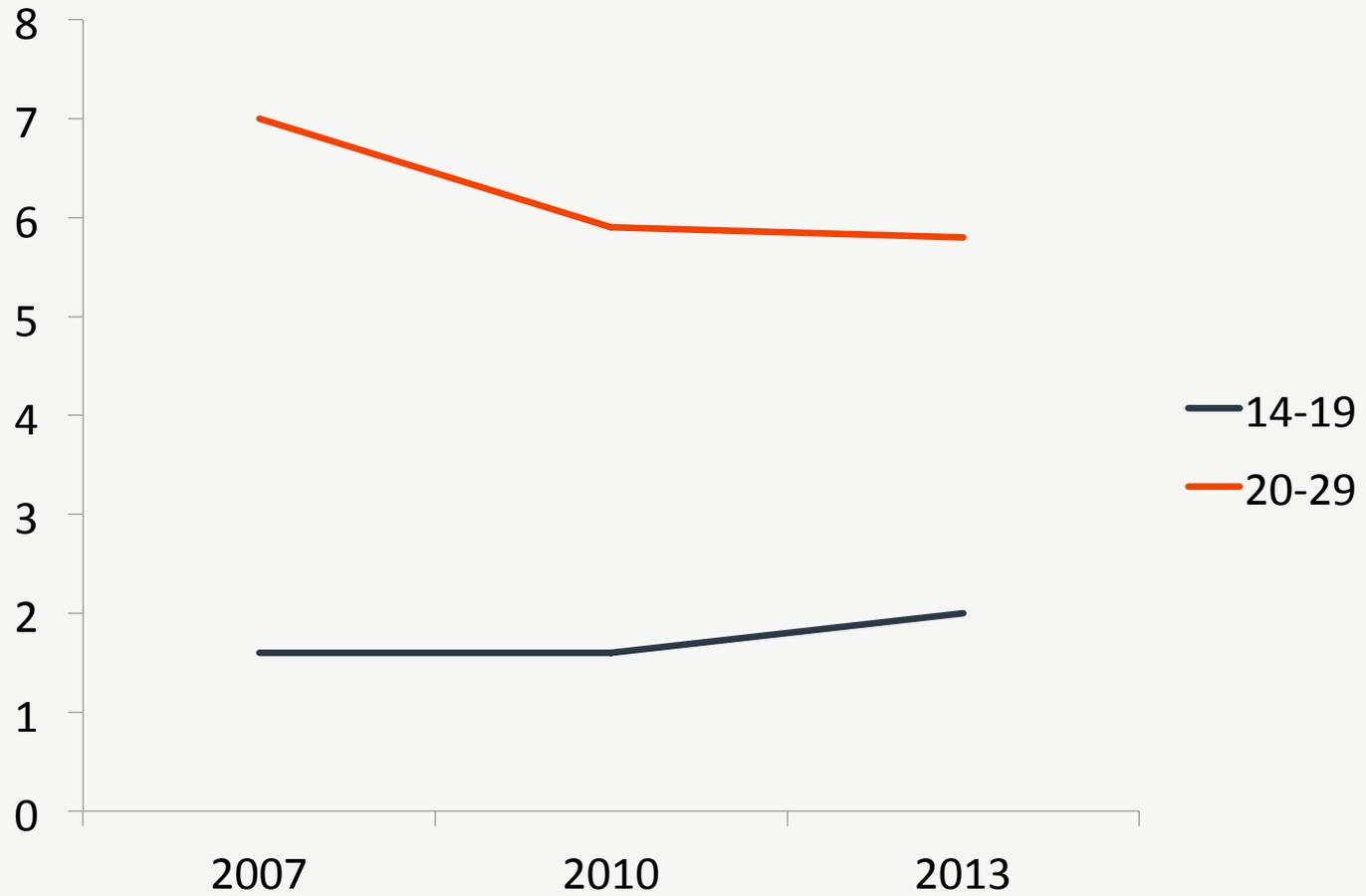
NDSHS, 2014



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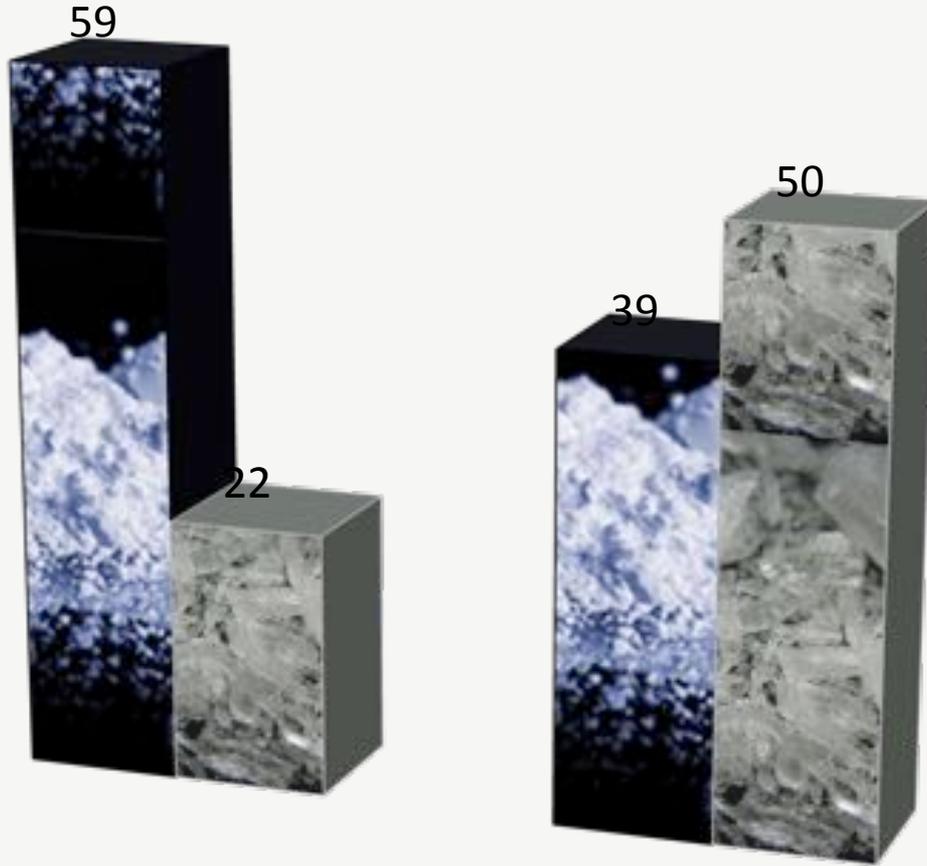


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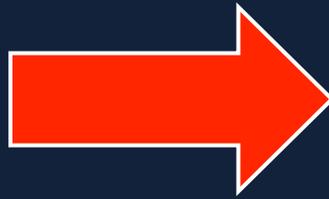


**Most young people
who were offered
meth didn't use it**

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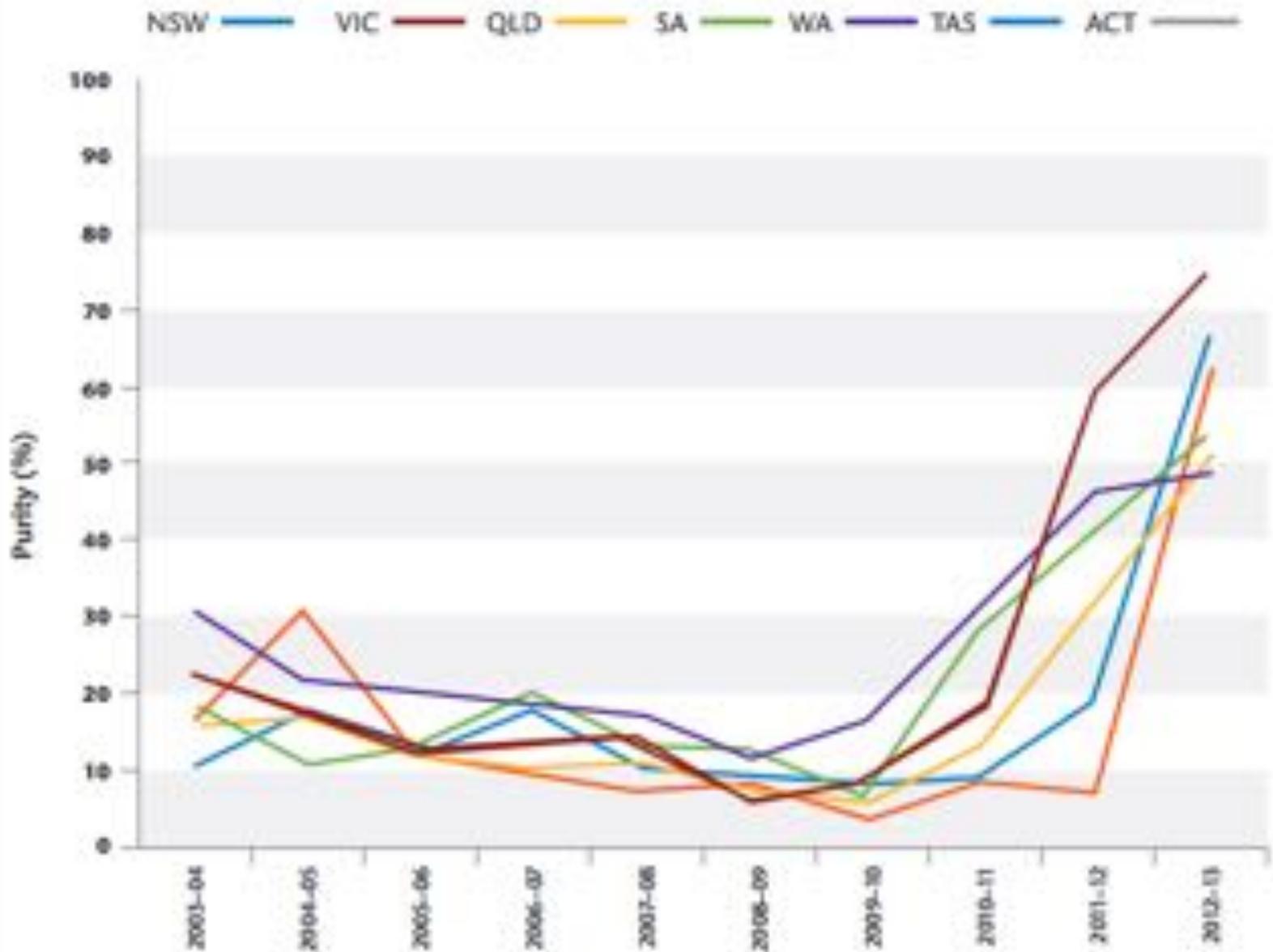


9.3%



15.5%

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No change in prevalence
Shift to crystal meth
High polydrug use
Frequency up
Price down
Purity up



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Harms.

v

Numbers.

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Treatment presentations
Hospital separations
Ambulance call outs
ED presentations
Drug induced deaths

*NMDS, 2013-14; Lloyd et al,
2015; Roxburgh & Burns, 2015*

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70%

Irregular users
< once a month

Not dependent
Mild health issues
Mild sleep problems
Acute harms

Secondary
intervention

15%

Occasional users
Once a month+

Unlikely dependent
Moderate mental health issues
Moderate sleep, nutrition issues
Acute harms

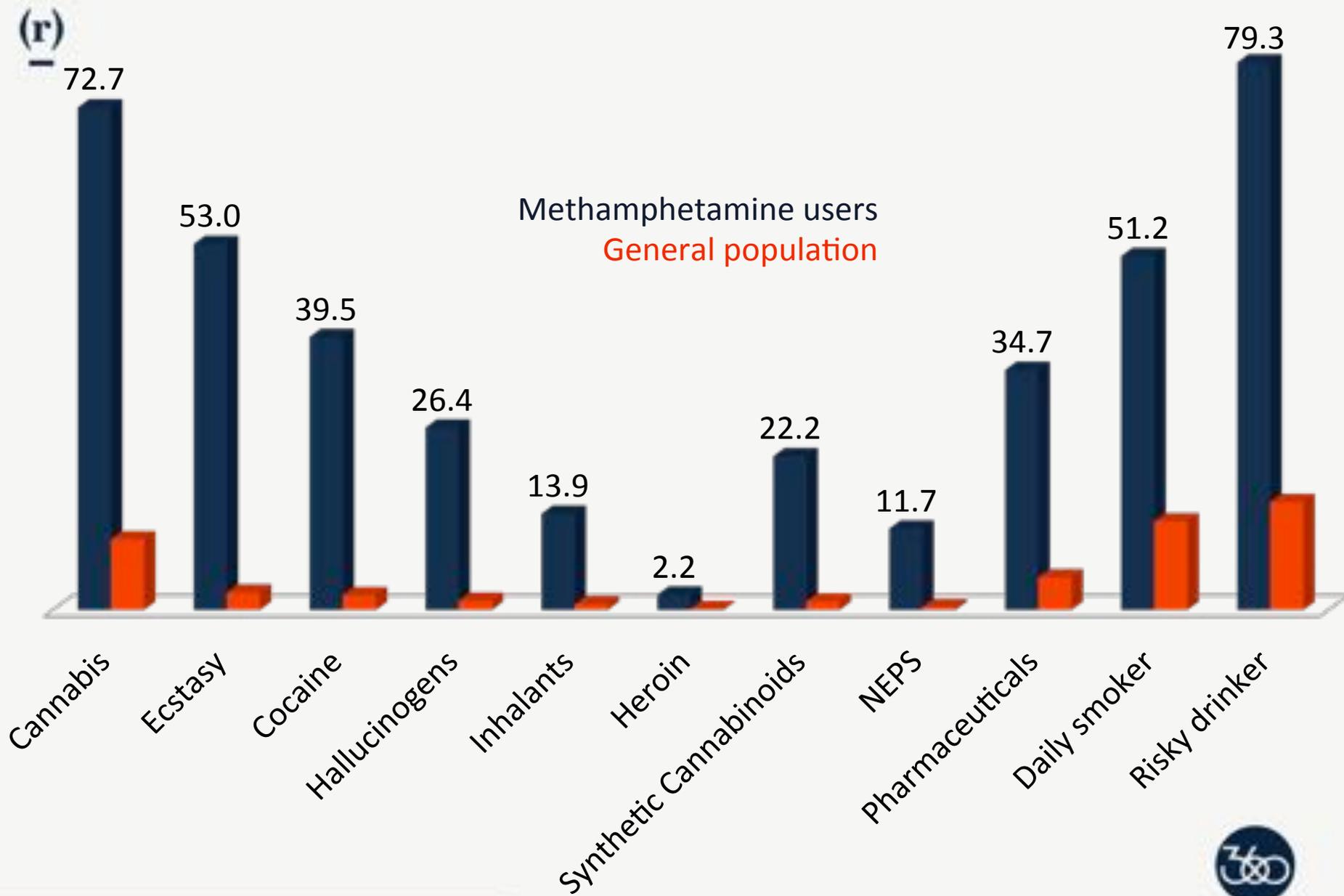
Early
intervention

15%

Regular users
Once a week+

Probably dependent
Smoking or injecting
Severe mental health issues
Severe sleep, nutrition issues
Acute and long term harms

Tertiary
intervention



NDSHS, 2014



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	Irregular users <i>< once a month</i>	Occasional users <i>Once a month+</i>	Regular users <i>Once a week+</i>	Daily users
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All Meth
Ice

70%
55%

15%
20%

15%
25%

Cannabis
Alcohol

55%

15%
35%

20%
37%

10%
6%



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Harm reduction critical.
Access to early intervention.



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NORADRENALINE

Alertness
Concentration
Energy

SEROTONIN

Obsessions &
compulsions
Memory

Anxiety
Impulse
Irritability

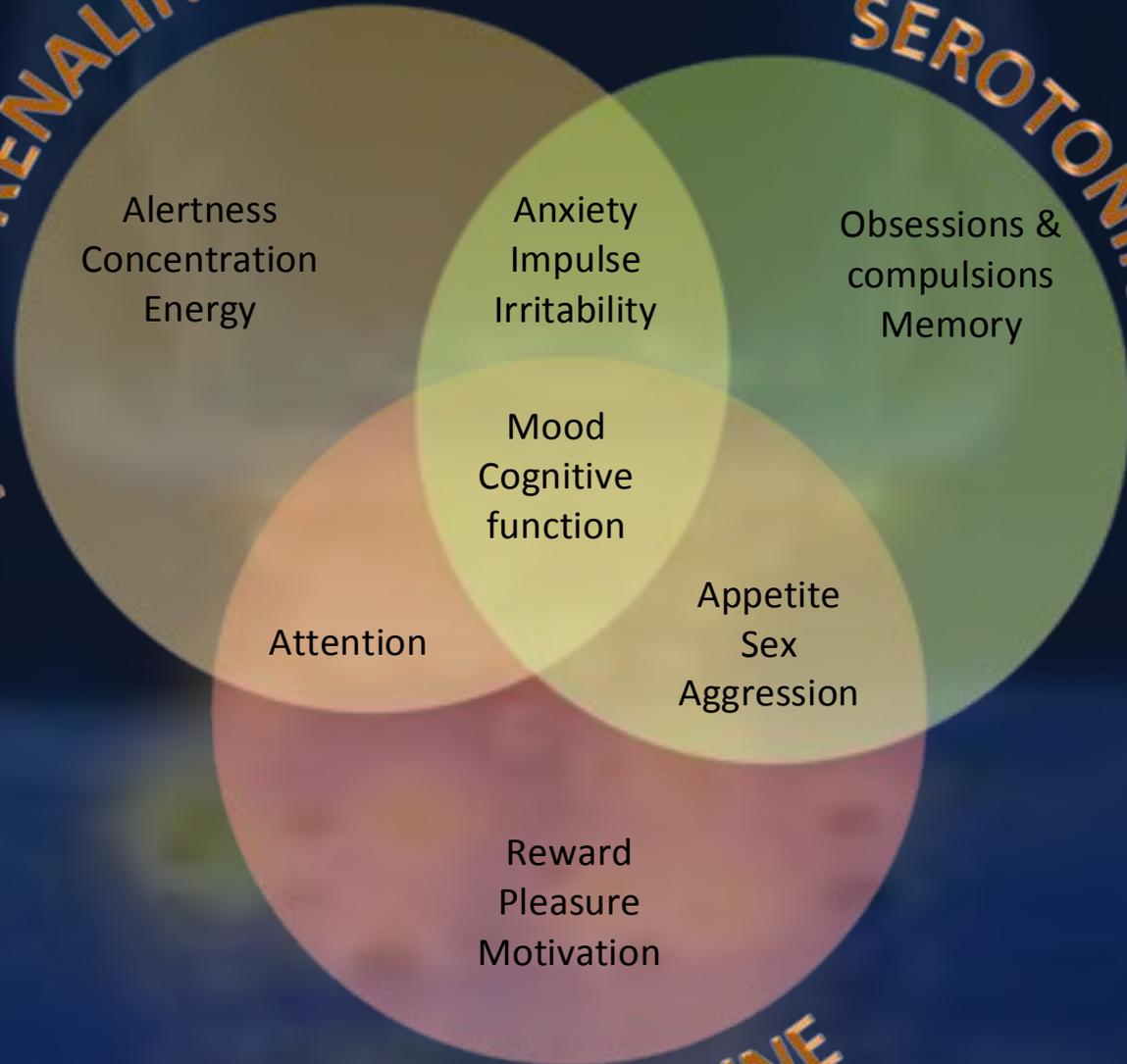
Mood
Cognitive
function

Attention

Appetite
Sex
Aggression

Reward
Pleasure
Motivation

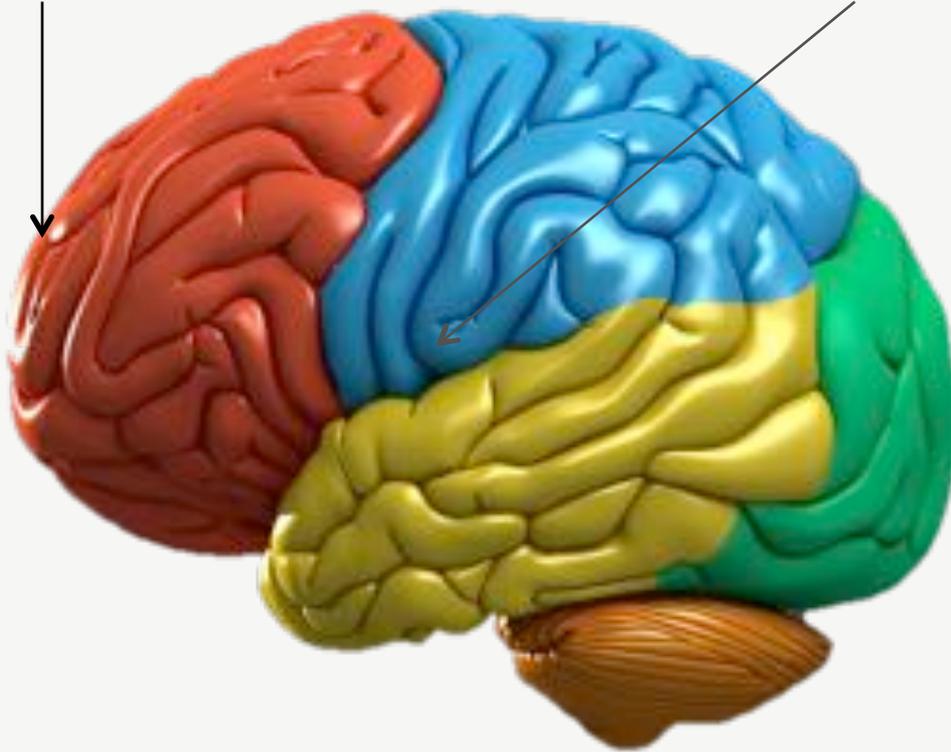
DOPAMINE



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Frontal lobe
(thinking, planning decision making)

Limbic system
(emotional, social and memory)

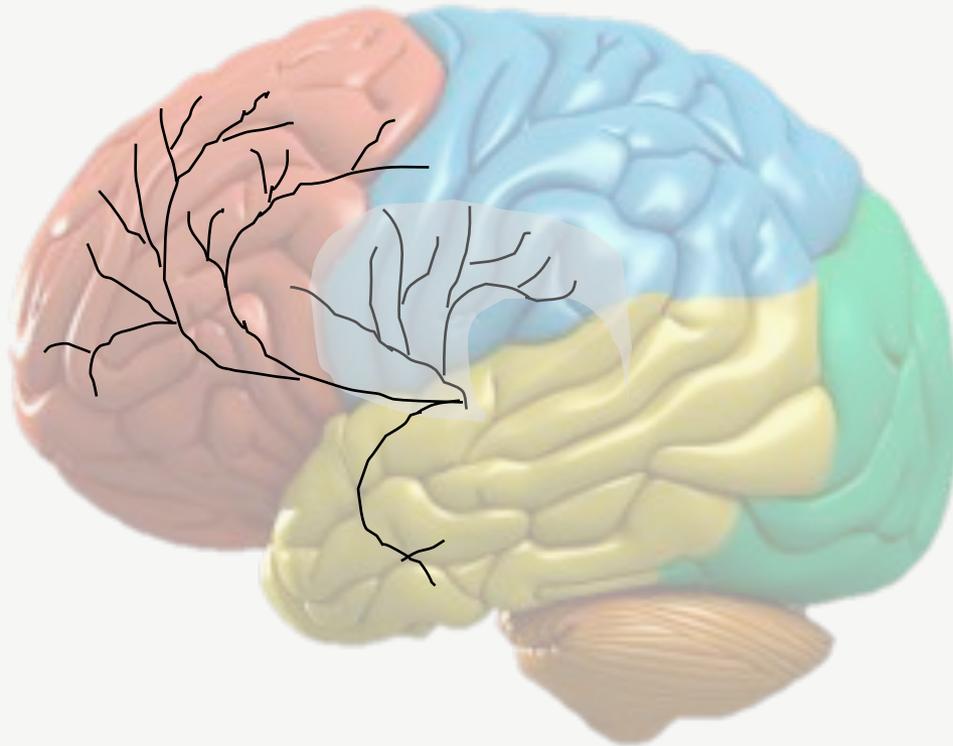


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Frontal lobe
(thinking, planning decision making)

Limbic system
(emotional, social and memory)



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Focus, attention and concentration

Memory

Planning ability

Decision making

Emotion regulation

Flexible thinking

Impulse control

Mood

Threat sensitivity



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Getting to appointments
Completing tasks
Taking on new information
Thinking about consequences
Goal setting and working towards goal
Stopping inappropriate behaviour
Switching from one topic to another
Unexpected outbursts



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Larger impairments than.

Cocaine (20x)

Marijuana (4x)

Alzheimers disease (6x)

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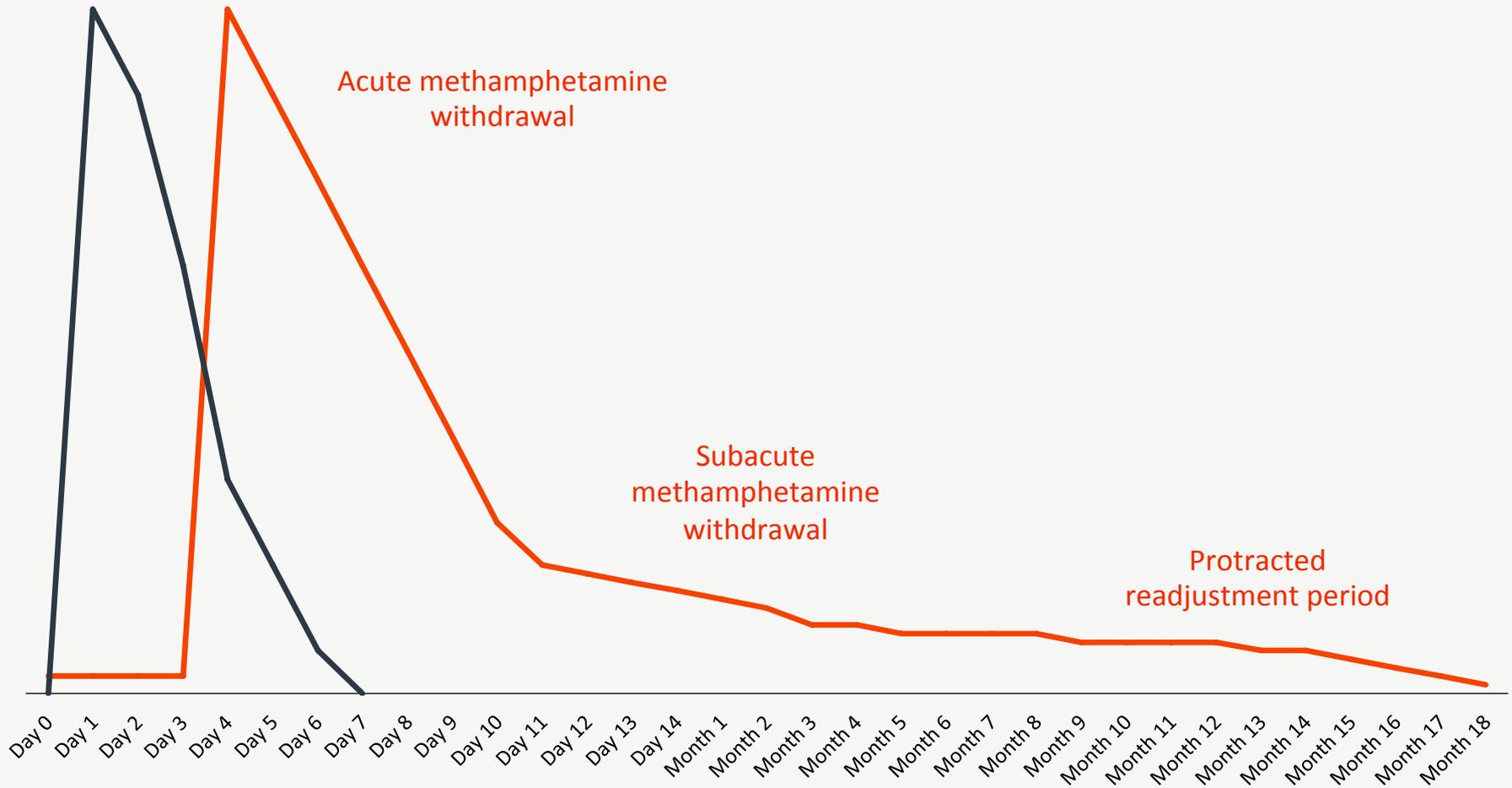
After 6 mo abstinence cognition WORSE than current users
No significant improvement 9-12 months



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Alcohol/heroin withdrawal



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**Adjust treatment for cognitive
impairment.**

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25%



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“I once heard a low distant rumble, and in the sky above what I knew was bushland there was an orange glow, so convinced there was a major bushfire I made a friend drive me in that direction, only to find the glow was the lights of the city.. and the rumbling.. umm yeah in my head!”

Popey's Mate on Bluelight

“I once thought Afghans were at my door. That scared the shit out of me. Kept thinking they're gonna blow up my house (an apartment in Perth, Australia - what a target to choose)”

LiquidDelight on Bluelight



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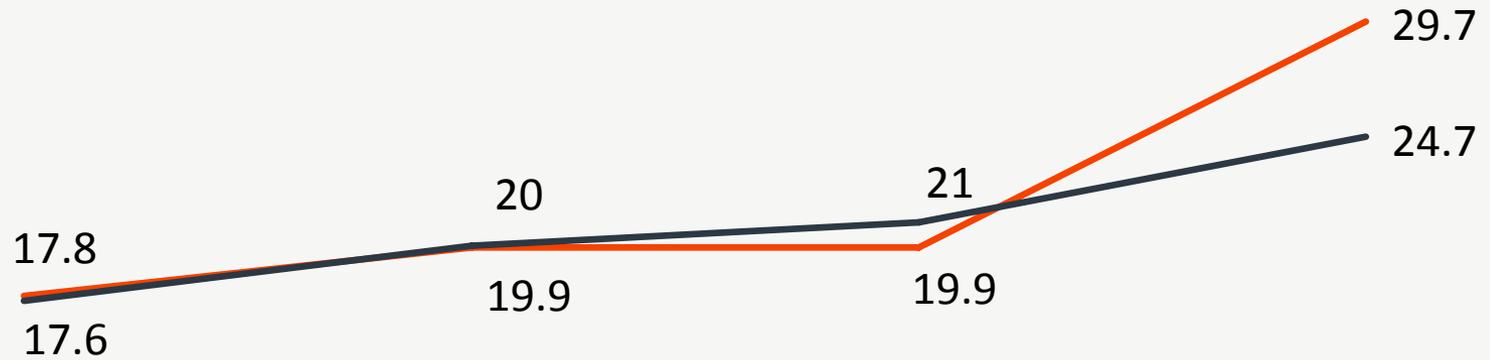
80%



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— No MH treatment — MH treatment



First meth use

First regular use

First problem use

First meth treatment

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**Opportunities for early
intervention through addressing
mental health.**



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No specific pharmacotherapy

Brief MI and CBT

Intensive CBT and CM

ACT

Residential rehabilitation

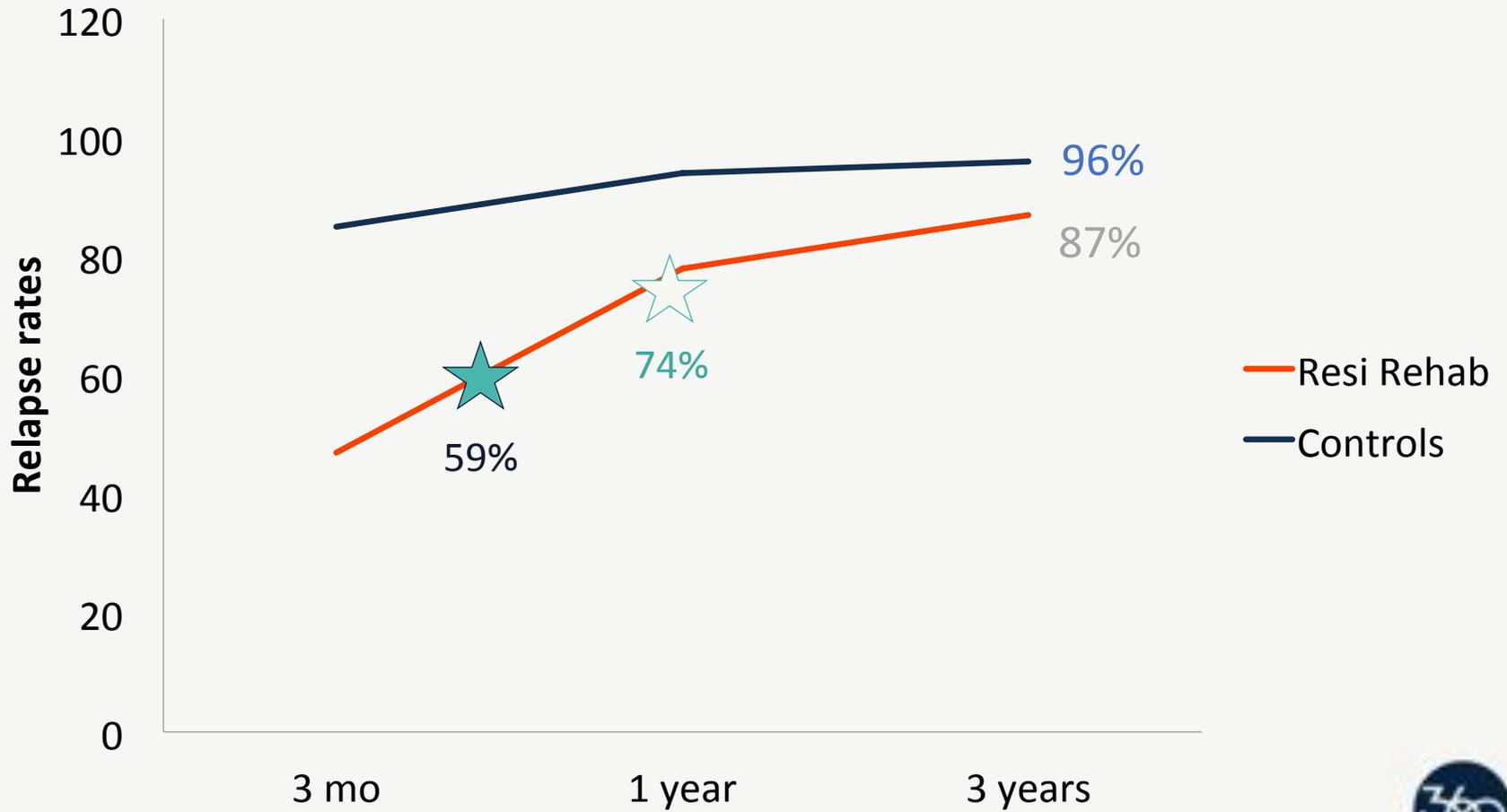


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Highest success in treatment.

Lubman et al 2014

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McKetin et al., 2012; Baker et al., 2005; Lubman et al 2014

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The most common outcome
from treatment is relapse

Witkiewitz, 2017

**Easier to get off
than to stay off.**

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Post treatment period is crucial.



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1300 988 184



nicole@360edge.com.au



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