

Making Research Work in Practice

12 May 2015 | Arts Centre, Melbourne

Effective strategies to address methamphetamine problems in primary care, emergency departments and hospital settings

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# Effective strategies to address methamphetamine problems in primary care, emergency departments and hospital settings

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# Stimulant use disorders largely untreated



Prevalence stimulant use disorders >3x opiate use disorders

Treatment seeking late, retention poor

Outcomes poorer among those with higher baseline use

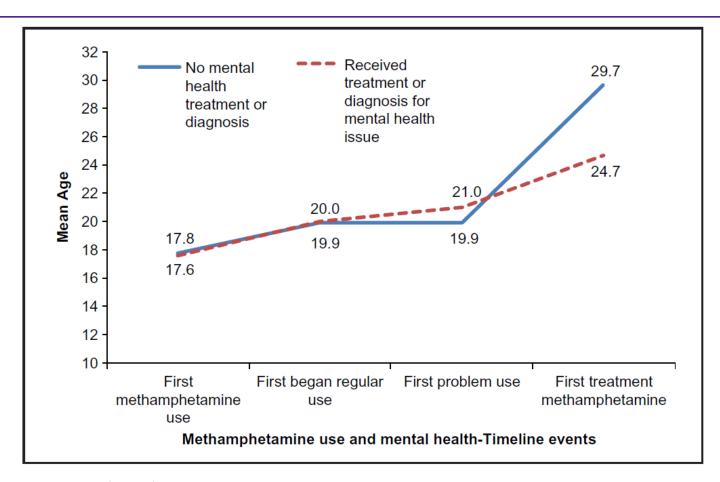
Problems associated with methamphetamine use

- psychosis, depression, anxiety
- blood-borne virus transmission, sexually transmitted infections
- cardiovascular & cerebrovascular events
- dependence/severe substance use disorder (compulsive use, tolerance, withdrawal, loss of control, narrowing of repertoire, persistent use despite recognised harm)

Quinn et al. Journal of Substance Abuse Treatment 2013;45:235–41; Lee et al Advances in Dual Diagnosis 2012;5(1):23-31; Hillhouse et al. Addiction 2007;102(Sup1):84-95; Darke et al Drug and Alcohol Review 2008;27;253-262; McKetin et al 2007 Drug and Alcohol Review 26, 161-168;

# Up to 10 year treatment delay





Lee, Harney & Pennay (2012) "Examining the temporal relationship between methamphetamine use and mental health comorbidity", Advances in Dual Diagnosis, 5(1):23 - 31



# Treatment seeking

- More likely to see treatment if:
  - Riskier use (eg IV)
  - Mental health diagnosis (commonly anxiety and depression)
  - Seeking support for other problems (eg mental health)
- Less likely to seek treatment if
  - Women, born outside Australia, full-time employed
  - Non-injectors
  - Perception of use as non-problematic even if dependent and experiencing MA-related harm

B. Quinn et al 2013 Journal of Substance Abuse Treatment 45; 235–241; Quinn et al 2013 Int J Drug Policy 24(6) 619–623; Lee et al 2012 Advances in Dual Diagnosis 5(1)23-31.

Day/Month/Year Footnote to go here Page 5



# Where is professional support sought?

- GPs most common source (24%)
- ED / hospital presentations while common underexploited opportunity

B. Quinn et al 2013 Journal of Substance Abuse Treatment 45; 235–241; Quinn et al 2013 Int J Drug Policy 24(6) 619–623

Day/Month/Year Footnote to go here Page 6

### **Spectrum of Psychoactive Substance Use**

#### Non-problematic

 recreational, casual or other use that has negligible health or social impact

#### Beneficial

 use that has positive health, spiritual or social impact: e.g. pharmaceuticals; coffee/tea to increase alertness; moderate consumption of red wine; ceremonial use of tobacco

#### **Problematic**

#### Potentially harmful

 use that begins to have negative health consequences for individual, friends/family, or society: e.g. impaired driving; binge consumption; routes of administration that increase harm

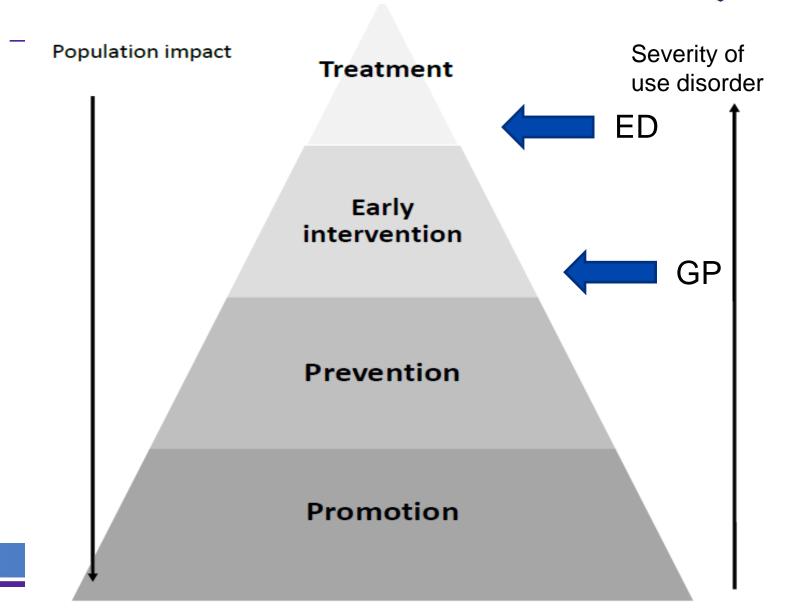
#### **Substance Use Disorders**

 Clinical disorders as per DSMV/ ICD10 criteria

Reference: Adapted from Government of BC, Canada, Every door is the right door: a planning framework to address problem substance use and addiction, 2004, p8

# Tiered intervention framework







#### **Actions**

**Detection (screening)** 

Management of intoxication

Harm reduction

Brief intervention (occasional users)

Motivational interviewing

Withdrawal management (daily users)

Counselling

Referral to specialist services

Support groups and residential rehabilitation



# Screening – Assist lite

#### In the past 3 months

- Did you use an amphetamine-type stimulant, or cocaine, or a stimulant medication not as prescribed? Yes [1] No [0]. If Yes:
- 2. Did you use a stimulant at least once each week or more often? Yes [1] No [0]
- 3. Has anyone expressed concern about your use of a stimulant? Yes [1] No [0]
- 2 +: positive for stimulant use disorder

Ali et al 2013 Drug and Alcohol Dependence 132 352 – 361

# Severity of dependence scale (SDS) ST VINCENT'S HOSPITAL SYDNEY

#### In the past month

(i)	Have you ever thought your speed use is out of control?			
	Never (0)	Sometimes (1)	Often (2)	Always (3)
(iii)	Has the thought of not being able to get any speed really stressed you at all?			
	Never (0)	Sometimes (1)	Often (2)	Always (3)
(iii)	Have you worried about your speed use?			
	Never (0)	Sometimes (1)	Often (2)	Always (3)
(iv)	Have you wished that you could stop?			
	Never (0)	Sometimes (1)	Often (2)	Always (3)
(v)	How difficult would you find it to stop or go without?			
	Never (0)	Sometimes (1)	Often (2)	Always (3)
Total Score:				

Score 4+: positive



#### **Assessment**

Intoxication/withdrawal

Duration of use and problem use

Route of administration

Risks and harms

Periods of abstinence, previous interventions

Other substance use

Co-existing problems

Internet use disorders

Gambling

High risk sexual practices

Substance use disorders – eg BZD, GHB

Mental illness



# Management of intoxication

- Assess risk of harm to self and others
- Exclude other organic causes
- Monitoring of vital signs
- Verbal de-escalation if necessary
- Sedation as required: BZD's, if fail then oral sedating atypical antipsychotic (olanzapine wafer)
- ED local sedation protocols for the management of acute behavioural disturbance
  - Nurse initiated IM protocols simple, more effective (shorter duration of behavioural disturbance, fewer requiring further sedation) and as safe as medical IV protocols (DORM protocol, Newcastle)
- Regular hydration
- Feedback, information when settles, harm reduction, referral



#### Harm reduction

#### Safe sex/safe use

- Information & education www.avil.org.au, www.acon.org
- Peer education
- Planning ahead
- Supplies and equipment
- Condoms lube
- NSPs (not pipes in current Australian context)
- Play packs/blood play packs (MSM, SSAW)

#### PEP/PrEP

HIV/STI/HCV/HBV testing, HBV vaccination

Avoid/manage BZD dependence

Smoking harm reduction

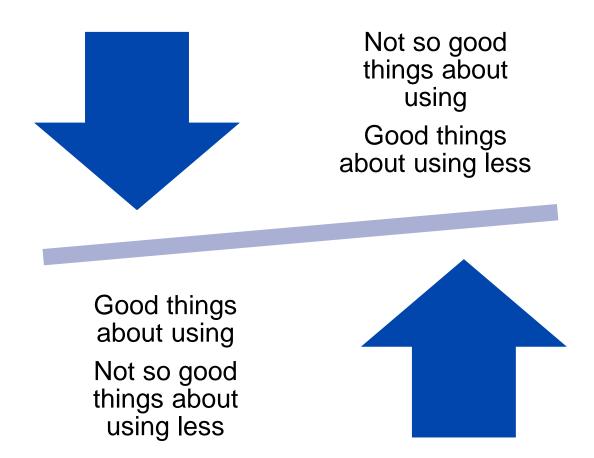
#### **Brief intervention**



- Engage, retain
- Assess motivation
- 5As
  - Ask, Advise, Assess, Assist, Arrange
- FLAGS
  - Feedback, Listen, Advise, Goal setting, Strategies



# Motivational interviewing



Motivation and confidence change over time



# Withdrawal Syndrome

#### Arises from:

- Depletion of pre-synaptic monoamine stores
- Down regulation of receptors
- Neurotoxicity

#### Characterised as:

- 1. Crash (1-3 days) excessive sleepiness
- 2. Acute phase (7-10 days) fatigue, depression/anhedonia, hyperphagia, in/hypersomnia, irritability, cravings, anxiety, poor concentration
- 3. Subacute phase (2 weeks +) sleep disturbance (less restorative), cravings, dysphoria, appetite disturbance



#### Withdrawal - treatment

Location – ambulatory, residential, inpatient

Information

Supportive counselling

No evidence-based pharmacotherapy

Diazepam low dose for agitation for 3 days (max)

Antipsychotics (eg olanzapine wafer) as indicated

Shoptaw 2008 Cochrane Review 2; Pennay & Lee 2001 Drug and Alcohol Review 30, 216–222; Kay-Lambkin et al 2011 MJA 195 (3): 38



#### Post-withdrawal care

Withdrawal is not treatment:

"Detoxification alone did not change methamphetamine use at any follow-up relative to no treatment"

McKetin et al 2012. Evaluating the impact of community-based treatment options on methamphetamine use: findings from the Methamphetamine Treatment Evaluation Study (MATES). Addiction. 107(11):1998-2008.



#### Post – withdrawal care

#### Depression

Mostly resolved by end of 2 weeks of abstinence

May persist for several months or longer (? neurotoxic component)

?May be a place for mirtazapine

Address smoking

?Buproprion 300mg / d

Benefits of exercise

Cognitive retraining

Colfax et al 2011 Arch Gen Psychiatry 68;1168-1175Heinzerling et al 2014 Addiction online ahead of print; Elkashef et al 2008 Neuropsychopharmacology 33;1162-1170; McCann & Li 2012 CNS Neuroscience & Therapeutics 18;414–418 Shoptaw et al 2008 Drug Alc Depend 96;222-232; Das et al 2010 AIDS 24; 991-2000



#### Post-withdrawal care

#### Self-help/Peer support groups

Narcotics Anonymous

SMART Recovery

Crystal Meth Anonymous

#### **Carer support groups**

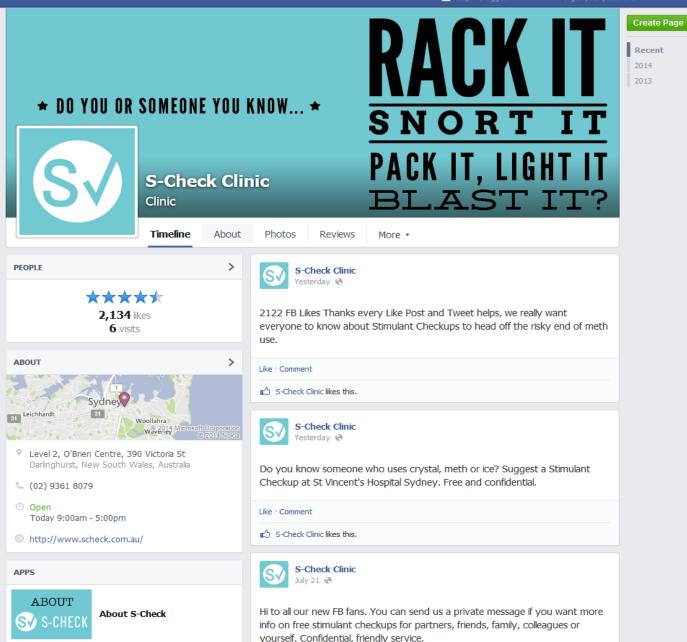
Family Drug Support Australia

**State Alcohol and Drug Information Services** for 24hr info. & referral advice for patients, carers, and clinicians.

Specialist services, counsellors (trauma treatment)

Residential Rehabilitation

PHOTOS



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#### **SCheck**

Risk based physical health screen

STI / HIV / BBV

Cardiovascular

Mental illness

Mental health screen

K10

SDS

DASS21

Feedback

Referral



#### Conclusion

- MA use disorder growing public health problem
- Psychosocial interventions with moderate efficacy treatment mainstay of treatment
- Treatment coverage low, treatment seeking late
- Enhance primary care and hospital role in detection, early intervention and harm reduction