ATS Harm and Treatment

To summarize:

WHO Technical Briefs on amphetamine-type stimulants (ATS)

- The usual age of first methamphetamine use appears to be mid-adolescence and metamphetamine is most typically used by boys.
- The rate and frequency of methamphetamine use tends to increase from early adolescence to early adulthood and then gradually diminishes.
- Those who are viewed as being especially vulnerable to experimentation with ATS include:
  - ✓ Incarcerated and institutionalized youth
  - ✓ Working/homeless children
  - ✓ Sexually abused children
  - ✓ Unemployed youth
  - ✓ Sex workers and other workers in the entertainment/hospitality industry (e.g. clubs and casinos)
  - ✓ Young people frequenting places of entertainment such as clubs and discothèques;
  - ✓ Men who have sex with men (MSM), lesbian, bisexual and transgender youth, who have higher rates of drug use including ATS than the rest of the community.

Consequences of amphetamine use

Physical consequences of low-dose use	Physical consequences of high-dose use	Physical consequences of short-term use	Physical consequences of long-term use	Physical consequences of ATS use
- Sweating - Intoxication - Palpitation - Chest pain - Headache - Hot and cold flushes - Reduced appetite - Increase in blood pressure - Euphoria - Alertness - Reduction of fatigue - Talkativeness - Improved physical performance	- Overdose - Intoxication - High blood pressure - Seizures - Nausea - Vomiting - Cerebral haemorrhage and death	- Intoxication - Dehydration - Cardiovascular problems (i.e. rapid heart rate, irregular heartbeat and increased blood pressure and death from a cardiac event) - Overdose - Hyperthermia and convulsions - Decreased appetite and weight loss - Skin and teeth problems - Sleep disorders - Feelings of invincibility while intoxicated - Increased high-risk behaviours such as unsafe sex	- Drug dependence - Poor nutrition - Poor sleep - Susceptibility to illness including cardiovascular problems - Potential death from arrhythmias or myocardial infarction or stroke	- Precipitates psychiatric problems - Exacerbates existing problems - Mood disorders: confusion, paranoia, anxiety, depression, suicidal ideation, panic attacks, obsession, psychosis - Cognitive impairment - Sleep disorders, fatigue - Agitation - Increased impulsivity - Aggression and violence - Social and family disruption /breakdown - Unemployment

Source: Adapted from the Australian ATS strategy

Consequences of amphetamine use in the context of polydrug use

Methamphetamine toxicity is increased when taken in combination with alcohol, cocaine or opiates.

- ✓ Use of alcohol and methamphetamine in tandem can be dangerous – it increases the blood pressure, placing a greater burden on the heart.
- ✓ Methamphetamine can also disguise the effects of alcohol, which may increase the risk of alcohol poisoning and accidents due to a false sense of feeling sober and in control.
- ✓ Use of cannabis and methamphetamine in tandem has been shown to increase psychotic symptoms in some users.
- ✓ Heroin and methamphetamine used together can cause respiratory depression which may induce cardiac failure. Methamphetamine can also increase the risk of heroin overdose.
- ✓ The combination of methamphetamine and cocaine has been shown to substantially increase the cardiotoxic effects of both drugs.

Why harm reduction?

"Harm reduction" refers to policies, programmes and practices that aim primarily to reduce the adverse health, social and economic consequences of the use of legal and illegal psychoactive and narcotic drugs, *without necessarily reducing drug consumption*.

Why harm reduction?

- ✓ Harm reduction is an intermediate measure designed to assist those who are unwilling or unable to stop using drugs such as ATS in the short term, ensuring that they do not suffer irreparable long-term harm, thereby benefiting people who use drugs, their families and the community. It is a public health approach that respects human rights and the right to health, and takes out the punitive element from drug “treatment”.
- ✓ To date, the majority of harm reduction services in the Asia–Pacific region has been designed with opioid users in mind, and generally focus on injecting drug users. These efforts have been highly successful in preventing avoidable harms, in particular, averting HIV and hepatitis B and C infections.
- ✓ ATS users rarely use harm reduction services, largely because they do not identify themselves with opioid users, often belong to different networks of users, and thus do not perceive harm reduction services as relevant to them. The result is that the needs of ATS users are neglected and few services are geared to their special needs.

Harm reduction for ATS users

- ✓ The pattern of ATS use extends from occasional and recreational use to heavy and dependent use.
- ✓ The minority of ATS users fall into the problematic/ heavy/ dependent category.
- ✓ The response should thus vary in accordance with the nature and severity of a person's involvement with ATS.
- ✓ Different interventions are required to address the complexity of ATS use.

Methamphetamine use and risks for acquiring HIV

- ✓ There have been conflicting findings with respect to the association of ATS injection and HIV infection largely because of the coexistence of high-risk sexual and injecting behaviours among users.
- ✓ Reported associations are related to a number of factors, including the higher prevalence of HIV in the general population in which ATS users live, as well as the characteristics and behaviour of the users themselves, particularly sharing of injection equipment and binge use.
- ✓ ATS use has become associated with a culture of risky sexual behaviour, both among MSM and heterosexual populations, as is evidenced by high rates of sexually transmitted infections (STI) among ATS users.
- ✓ This link may be due to the fact that methamphetamine increases libido although

Steps for developing harm reduction services for ATS users in the community

STEP ONE: Preparation

Conduct a "needs assessment" review based on research and "good practice".

Collect strategic information.

Identify what interventions are needed.

Consult with ATS users, ensuring their meaningful involvement in the planning and delivery of services.

Identify acceptable interventions and innovative ways of reaching ATS users.

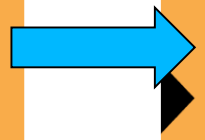
Plan staff recruitment and training.

Address barriers to support help-seeking behaviours among ATS users/examine legal and policy frameworks.

Explore a multifaceted/comprehensive approach. Integrate research and evaluation into services.

Establish clear targets and objectives.

Conduct advocacy with the community and law enforcement officials, and assess the capacities and resources in the community.



STEP TWO: Services

Outreach and peer education:

- Provide culturally sensitive and clear messages. These should be integrated and consistent, accurate and relevant to ATS users, highlighting the risks of injecting and acquiring bloodborne diseases from sharing contaminated equipment. Include the following messages:

  - Use less ATS and less often (drink water, eat fruit, improve diet, get adequate rest, employ strategies to help control drug intake, monitor own behaviours, do not use alone).
  - Avoid using ATS with other psychoactive substances (e.g. alcohol to help "come down" from ATS).
  - Do not inject – switch from injecting use back to oral use – if injecting, do not share.
  - Use a condom every time you have sex.

Targeted interventions for specific groups of users

- (e.g. injectors and non-injectors, youth, women, minorities)

Provision of equipment to help behaviour change (condoms, needles and syringes)

Low-threshold advice and brief counselling to ATS users and families (see next page)

Establishing links and a referral network to health and welfare facilities

Pharmacological treatment for amphetamine used disorder

Amphetamine dependence

Amphetamine withdrawal

Amphetamine psychosis

Remarks

Firstly : adequate→life treathening

Second : treatment acute psychiatric and physical conditions until stable

Third : re-evaluataed /re-assessment : SUD hx, co-morbid hx

Fourth : established provisional diagnosis from gathering all information

Fifth : established differential dx esp.

- primary psychiatrics(schizophrenia/MDD/Bipolar/personality + SUD)→focusing on psychiatric protocol with SUD psychosocial intervention)
- SUD + secondary (substance induced psychosis,mood,anxiety symtomp)→focusing on stabilized clients until psychosocial intervention can started

Sixth : Treatment planning followed by dx and recovery resources/capital

Amphetamine dependence treatment- no medication approved

Stimulants – modafinil,d-amphetamine,methyphenidate

Antidepressants-bupropion(more promising),mirtazapine

Other medications-naltrexone(more promising)

Amphetamine withdrawal treatment

Amphetamine withdrawal- aware serius depress mood → symptomatic treatment by antidepressant/anxiolytic

symptom

1. **hyperarousal syndrome→** drug craving, agitation,vivid and unpleasant dreams)

2. **reverse vegetative (syndrome) →physical and mental exausted increase appetite, increase sleep**

3. **anxiety syndrome →**loss of interest or pleasure, decrease motor activity

Amphetamine psychosis treatment

Amphetamine psychosis

Most common→ paranoid delusions ,auditory hallucinations

Treatment→ short term antipsychotic (until the psychotic resolved) monitor adverse events up to 1-6 mo , closed follow up