There are two categories of illicit drug use: the use of substances that are illegal to possess (for example, cannabis, methamphetamine and heroin) and the non-medical use of substances that are legally available (such as pain killers, tranquillisers and sleeping pills) [1].

**Description of drugs**

**CANNABIS**

The principal psychoactive ingredient in cannabis is delta-9-tetrahydrocannabinol (THC) [2]. The positive acute effects of cannabis include a feeling of euphoria, heightened visual and auditory perception, and altered time perception. Negative acute effects include anxiety and panic, paranoia and short-term memory confusion. The harms associated with chronic use include subtle impairments of cognitive functioning, increased likelihood of carcinoma, adverse respiratory effects and dependence.

**AMPHETAMINES**

Amphetamines are synthetic substances that are structurally similar to the naturally occurring adrenaline and ephedrine that stimulate the central and sympathetic nervous systems [2]. The acute effects of amphetamines include a suppressed appetite and need for sleep, and an increase in activity and confidence. Longer term effects include weight loss and eating disorders, delirium, anxiety, paranoia, psychosis, depression and other mood disorders and dependence.

**COCaine**

Cocaine is a stimulant derived from the Coca plant and is a centran and sympathetic nervous system stimulant [2]. It acts to increase concentrations of neurotransmitters, particularly dopamine (involved in motivation and reward), which is believed to be the reason for its abuse potential. Acute effects include sociability, euphoria and decreased need for sleep. Acute toxic doses result in a number of effects including anxiety, aggression, confusion, convulsions, sweating and nausea. Chronic use can result in anxiety,
violence, insomnia, depression, loss of libido and dependence.

**ECSTASY**

Ecstasy is the street name for 3,4-methylenedioxymethamphetamine (MDMA) [2]. MDMA acts in the brain to enhance serotonin (at least initially) and to increase dopamine concentration. It is believed the increase in dopamine concentration is the reason for its stimulant properties. The acute positive effects of MDMA are euphoria, increased energy and feeling close to others. Acute negative effects are less common, but can include paranoia, anxiety and depression. The adverse effects of acute use are low, but the unpredictable nature of these effects and the impact on morbidity and mortality result in significant health consequences. The notable effects are hyperthermia and hyponatraemia (or water intoxication). Longer term effects include insomnia, headaches and depression.

**HEROIN**

Heroin, a potent opioid derived from morphine, acts on the opiate receptor system involving the central nervous system, the endocrine system and the gastrointestinal system [2]. Acute effects include euphoria, sedation and pain relief, as well as nausea, constipation and reduced libido. The harms arising from heroin use include the transmission of blood-borne viruses from injecting use, the risk of overdose (1-2% of heroin users fatally overdose), psychological effects (including depression, anxiety and suicidal ideation), tolerance, withdrawal and dependence. It is estimated that one in three users will develop dependence.

**SEDATIVES**

Sedatives such as benzodiazepines are central nervous system depressants and are used clinically for the relief of anxiety [2]. They are widely used illicitly with acute effects ranging from drowsiness, impaired motor coordination and impaired cognition. Relatively short-term use (3-6 weeks at a therapeutic dose) can lead to tolerance of the anxiolitic effect, cognitive impairment, emotional blunting and dependence.

**ANALGESICS**

Analgesics containing codeine are of concern as they are a form of opioid and can be used to make home-bake heroin [2]

### Problematic substance use patterns

Problematic substance use patterns include intoxication, regular use and dependence [2]. One, two or all three patterns may occur within one individual. Harms from use arise from the interaction between the drug, the individual and the environment in which drug use occurs. This public health perspective reflects the fact that much harm can arise for the individual and the community from continual excessive substance use and dependence as well as from occasional excessive substance use, continual low level use, and the context in which substances are used.

Problematic drug use is categorised as:

- Hazardous – use increases the risk of harmful consequences for the user;
- Harmful – use that causes physical and/or mental damage to health;
- Substance abuse – use which leads to clinical impairment or distress within a 12-month period, but is not characterised by tolerance, withdrawal or compulsion;
- Substance dependence – use characterised by considerable problems, the presence of tolerance and associated withdrawal upon cessation of drug use [2]

### References

The Australian Indigenous HealthInfoNet is an innovative Internet resource that contributes to ‘closing the gap’ in health between Indigenous and other Australians by informing practice and policy in Indigenous health.

Two concepts underpin the HealthInfoNet’s work. The first is evidence-informed decision-making, whereby practitioners and policy-makers have access to the best available research and other information. This concept is linked with that of translational research (TR), which involves making research and other information available in a form that has immediate, practical utility. Implementation of these two concepts involves synthesis, exchange and ethical application of knowledge through ongoing interaction with key stakeholders.

The HealthInfoNet’s work in TR at a population-health level, in which it is at the forefront internationally, addresses the knowledge needs of a wide range of potential users, including policy-makers, health service providers, program managers, clinicians, Indigenous health workers, and other health professionals. The HealthInfoNet also provides easy-to-read and summarised material for students and the general community.

The HealthInfoNet encourages and supports information-sharing among practitioners, policy-makers and others working to improve Indigenous health – its free on line yarning places enable people across the country to share information, knowledge and experience. The HealthInfoNet is funded mainly by the Australian Department of Health and Ageing. Its award-winning web resource (www.healthinfonet.ecu.edu.au) is free and available to everyone.

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FEATURED ARTWORK

The tutakalani

by Donna Lei Rioli

The art featured on this issue of the Australian Indigenous HealthReviews was painted by Donna Lei Rioli - a Western Australian Indigenous artist. Donna is a young Tiwi/ Nyoongar woman who enjoys painting because it enables her to express her Tiwi (father, Maurice Rioli) and Nyoongar (mother, Robyn Collard) heritage and she combines the two in a unique way.

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