director’s report
Jan Copeland (PhD) – Professor/Director, NCPIC

The year has once again flown by and we’re in December before we know it. It has been a very productive year for us and we hope you have found our resources, research and training of value.

This month will see a major passing of the baton in our Communications Team. Paul Dillon has been a major driver of NCPIC’s development, particularly our website and resources. While Paul has only ever been part-time he now moves to even fewer days per month until June and will be taking lots of leave that he has accumulated over the many years at UNSW in early 2014. Fortunately he will stay on as a consultant so we won’t lose all his expertise or his fabulous company!

On the plus side we will be welcoming Amanda McDonald as the full-time Communications Manager this month. She has many years of experience in the corporate communications sector and we can’t wait to be challenged with new ideas and ways of promoting our work.

This year, we received around 80 creative and original entries from across the country for our 2013 NCPIC Poster Competition. Our judging panel (which included a creative director and designer; a graphic designer; an alcohol and other drug counsellor; and the CEO of a leading young peoples’ mental health organisation) was impressed with the standard of the entries and the original responses to this year’s theme of how to help a friend who is experiencing problems with cannabis get the right sort of help. Congratulations to our winner, Justin Brown from Induna School, NSW who won $2000 for himself and $1500 for his school. We understand this was a very welcome and surprising win for this school community in South Grafton for secondary students with special needs. His winning poster, ‘Be A Good Bud’ will shortly be available to order free of charge from our online order form.

The other change this month was the resignation of the Ted Noffs Foundation from the NCPIC consortium. This is the first change in the group since our establishment in 2007. We’d like to thank Wes, Mandy and Matt Noffs and their staff for their contribution to the Centre and wish them well in their future endeavours.

I’d like to take this opportunity to thank our consortium partners, NCPIC Advisory Committee members as well as my staff and our collaborators for their efforts this year in serving the Centre’s mission.

Very best wishes for the holiday season and I look forward to working with you in 2014.
Wastewater analysis reveals regional variability in exposure to abused drugs and opioids in Finland – a comment on Vuori and colleagues (2013)

Peter Gates

The limitations of using population surveys to gauge drug use across communities are well known. Using national surveys is time consuming, labour intensive, focusses on the number of users (often without specific reference to the frequency or quantity of use) and is limited to the number of participants who admit having used a drug. Due to these constraints, national surveys generally fail to be collected with any regular frequency and often provide data that is outdated. A recent alternative to population surveys that has been used to gauge community substance use is that of wastewater analysis. Untreated wastewater entering into a treatment plant provides an accessible, economic and reliable means to assess real-time substance use allowing for the detection of changing patterns of use.

The use of wastewater analysis to assess substance use quantities was first proposed in 2001, and implemented by 2005. Since this time some very sophisticated analytical methods have been developed and the measure has been successfully validated with a close correlation between known population consumption and the estimates coming from concentrations of metabolic drug residues with a known metabolic and excretion rates and known flow rate of waste.

Wastewater analysis has been previously implemented in Australia by Lai and colleagues (2013). Information from this study showed cannabis consumption to decline during holidays in semi-rural areas (as did methamphetamine while cocaine and ecstasy use increased) with an opposite trend in urban areas where consumption of all drugs increased.

Recently, Vuori and colleagues (2013) investigated the wastewater in nine towns and cities across Finland, including the capital, Helsinki. Samples were collected across eight days using two 500mL bottles – one bottle for drug analysis and the other for estimating the population size.

Results from this study showed that amphetamine and methamphetamine were the dominant substances, although in the capital the most common substances were cocaine and cannabis. Notably, ecstasy and cocaine were present in higher concentrations during weekends, while the other stimulants, cannabis and opioids, each remained relatively constant. The median load of cannabis metabolites ranged between 0 and 20.7 mg/1000 inhabitants/day and was relatively low (almost half of international estimates). The median load of stimulants was also relatively low where amphetamine varied between 4.16 and 29.6 mg/1000 inhabitants/day while methamphetamine was between 0.87 and 47.5 mg/1000 inhabitants/day.

As the authors describe, particular care must be taken when using this form of substance use quantity estimation as there are several areas which may introduce bias. These include the collection of samples and the possibility of delay and resource limitation and including the possibility of "ion suppression" which can affect the analytical phases from solid phase extraction to liquid chromatography and tandem mass spectrometry. When care is taken, however, wastewater analysis is a relatively new and promising means to supplement data from national surveys and better understand the frequency and quantity of substance use across communities.


effects of cannabis long-lasting, says researcher

University of Wollongong: November 22, 2013

Associate Professor Nadia Solowij, from the University of Wollongong’s School of Psychology, says that memory, attention and higher cognitive functions are all impacted in the long-term by regular heavy cannabis use. According to Professor Solowij, the young age of those now using cannabis is of particular concern.

“The longer you use cannabis, the more heavily you use cannabis, and the younger you are when you start using cannabis, the greater the changes that we see in the actual structure of the brain,” said Professor Solowij.

young teens using cannabis less likely to get into university

The Age: November 26, 2013

A study from Melbourne University has found that teenagers using cannabis by age 14 achieved a university entrance rank 5 points lower than those who did not use cannabis during early teenage years. The study also found that young people who consume cannabis early also tend to use it more “intensively on average”.

drug may ease cannabis withdrawal, say researchers

New Zealand Radio News: November 29, 2013

New research has found that Sativex (a mouth spray containing cannabis extracts) could alleviate the short-term effects of cannabis withdrawal. The research was recently presented by Dr Dave Allsop at the New Zealand Drug Foundation’s International Drug Policy Symposium in Auckland.

Dr Allsop, from the National Cannabis Prevention and Information Centre, said that over eight days Sativex “significantly decreased withdrawal symptoms like insomnia, loss of appetite and mood swings”. Withdrawal symptoms often drive the relapse of people trying to quit cannabis. Dr Allsop said researchers now want to look at using the drug for a long-term maintenance plan.

one-stop drug and alcohol breath tester

Brisbane Times: November 11, 2013

A world-first all-in-one alcohol and drug testing device is set to be trialled in Cleveland. The ‘Alcolizer ADU’ (Alcohol and Drug Unit) takes a saliva sample and returns a reading within 30 seconds. It is expected to be trialled by several Australian police forces in the first quarter of next year.

US study finds link between cannabis use and reduced condom usage

NewsMedical: November 15, 2013

A new study emerging from the US has found a link between cannabis use and reduced condom use among college women. The findings also indicate that women with established romantic partners who use cannabis also use condoms less often. The study was recently published online in the Journal of Sex Research.

continued from page 2

research publications


Factsheet 29 – Cannabis use and psychosis

what is psychosis?
Psychosis refers to a state of mind in which one’s interpretation or experience of reality is distorted. It is a syndrome that consists of the following symptoms: delusions (false beliefs), hallucinations (perceiving objects or events that are not physically present), disorganised thought, and unusual speech and behaviours. Psychosis is seen in various different conditions such as schizophrenia, brief psychotic disorder, bipolar disorder, and major depression. It can also result from the effects of illicit drugs and some physical illnesses.

Psychosis occurs more commonly in young adults. It is estimated that around 2% of people will experience a psychotic episode in their lifetime, of which 80% will experience their first episode between the ages of 15-30. Most people recover from a psychotic episode with treatment. The time required for recovery varies from person to person.

does using cannabis cause psychosis?
Evidence suggests that heavy cannabis use in adolescence is associated with a higher risk of developing a psychotic disorder later on, such as schizophrenia. Using cannabis in adolescence is also associated with experiencing a greater number of psychotic symptoms in adulthood, even after controlling for pre-existing symptoms. A review of studies has shown that regular cannabis use is associated with twice the risk of psychotic symptoms or psychotic disorders compared with non-users.

It is also associated with a younger onset of psychotic illness. Cannabis use carries an even greater risk of psychotic symptoms and disorders for those with susceptibility to psychosis (i.e. individuals who are already experiencing psychosis-like symptoms) or who carry a genetic predisposition.

if you have a psychotic disorder, does using cannabis affect treatment outcomes?
People who continue to use cannabis following the onset of psychotic illness have been shown to experience poorer treatment outcomes, including poorer medication compliance, a greater number of symptoms, and impaired social functioning. Even after controlling for medication adherence, patients who continue to use cannabis have a higher number of symptoms five years later compared to patients who did not use cannabis or who stopped using it after the onset of psychosis.

For help with issues relating to cannabis and health, please call the National Cannabis Information and Helpline on 1800 30 40 50.

For further help with mental health issues:
Lifeline – 13 11 14
Headspace – www.headspace.org.au
mindhealthconnect – www.mindhealthconnect.org.au
This factsheet can be found on the NCPIC website.