

- contents
- commentary on research p2
- research publications p2
- media stories this issue p3
- Yarramundi – ‘Young Men and Yarndi’ Aboriginal youth camp with Lithgow students p4

what's new in cannabis?

Music competition winner announced

We are pleased to announce the winner of this year's Aboriginal and Torres Strait Islander Music Competition. Twenty-eight year old Wurundjeri woman, Carol George, won \$5000 and the chance to professionally record her song with SkinnyFish Music. Congratulations also to the runner-ups Jerome Jurra and Messiah Brown from the Yuendumu Community in the Northern Territory. A CD of the finalists' songs will be produced in the coming months and will be available to order from our website.

director's report

Jan Copeland (PhD) – Professor/Director, NCPIC

We would like to congratulate the prize-winners for this year's Short Film Competition. Our winner, George Makrynakis from Victoria, won \$5000 for his film "Wasted" while our two runner ups, Jake Lyall from New South Wales and Jessica O'Donovan from Western Australia, each won \$2000. Their films will soon be uploaded to our website and YouTube Channel.

While the Centre provides a number of conference presentations each year, November has been particularly hectic. Etty Matalon, John Howard and I gave papers at the 2011 Youth Health Conference here in Sydney early in the month. As adolescents are a principal focus for our Strategic Plan this was a great opportunity to talk about evidence-based interventions, our *Cannabis: It's Not Our Culture* project and *Cannabis and Sport Don't Mix*. A week or so later we were off to Hobart for the *Australian Professional Society on Alcohol and Drugs*. It was personally a trip down memory lane to my childhood home town but far more importantly it was terrific to have a symposium to present our work in addition to other papers. Many thanks to participating staff for an excellent showcase, including a well patronised exhibition stand. I closed off the month by presenting to the meeting of the Australian Association of Smoking Cessation Professionals in Sydney. This gathering of around 100 GPs and nurses was well aware of cannabis as a "gateway" to tobacco use and dependence and I look forward to working with them more closely on this important comorbidity into the future. The final conference-related news was

the call for abstracts opening this month for the 2nd National Cannabis Conference. They will close on 1 March 2012 and we look forward to your submissions. Please go to <http://ncpic.org.au/ncpic/events> for further information.

In addition to our core NCPIC activities, this month has seen momentum gather for our inpatient trial of *Sativex*. This NH&MRC funded project has been grinding through the mountains of paperwork for various approvals and importation licenses for many months but November has seen the drug (and placebo) arriving in the country and our first potential participants screened for admission. We will commence active media recruitment early in the New Year but if you wish to refer any potential participants who are willing to undertake the usual research requirements within an inpatient withdrawal admission for nine days in either Sydney or Newcastle please contact Dr David Allsop (d.allsop@unsw.edu.au) for further information.

As we prepare for the holiday season I'd like to thank our consortium partners and staff for an excellent year's work.

Very best wishes for the holidays and a happy and safe 2012,

Jan

commentary on research

cannabis in sport: anti-doping perspective – a comment on Huestis and colleagues

Peter Gates

Prior to the creation of the 2004 World Anti-Doping Code (Code) by the World Anti-Doping Agency (WADA), cannabinoids were prohibited only in certain sports. In 2004 the Anti-Doping Code included cannabinoids in the Prohibition List of banned substances with the caveat that cannabis use would be banned in competition only (not during training). This decision came after recognising that cannabis: (a) enhances, or has the potential to enhance, performance; (b) is a health risk, or potential health risk, for athletes; and (c) is in violation of the spirit of sport.

This development is policed through the testing of urine prior to competition. This urinalysis is conducted specifically to identify the presence of THCCOOH (a metabolite of cannabis) in equal to, or greater than, the threshold value of 15 ng/mg. Sanctions for producing positive urine range from a warning to a 2-year ban, with repeated offences resulting in a potential lifetime ban.

In their paper “Cannabis in Sport: Anti-Doping Perspective” Heustis and colleagues (2011) offer a review of the literature pertinent to the decision of prohibiting cannabis and to the use of urinalysis to police the prohibition.

The authors refer to decades of research highlighting cannabis use as a potential

health risk. In the context of sporting events the authors focus on the potential for cannabis to have negative influences on coordination, movement and technical skills, time estimation, reaction times, executive functioning, decision making and increases in heart rate (resulting in hypotension, dizziness and disorientation). Taken together, cannabis use is presented as a health risk, particularly “when handling equipment or in competition involving high velocities”.

Cannabis is then presented as a potentially performance enhancing substance, or an ‘ergogenic’ drug. Heustis and colleagues (2011) cite the potential for cannabis to assist by: improving self-confidence, relaxing muscles pre-competition (and improving steadiness), decreasing anxiety, fear, depression, tension, and stress; and by increasing the rate to which fear memories are extinguished. Finally, the authors cite a study of athletes’ motivations to use cannabis and note the most frequently reported motivators were due to the positive effects on relaxation and wellbeing, and improving sleep.

The authors do not review any previous research supporting that cannabis use should be considered to be in violation of the spirit of the sport. Instead, the authors refer to the intrinsic incompatibility of potential role models being seen using an illicit substance and cite the recent media attention of an Australian athlete being photographed using cannabis and the subsequent loss of corporate sponsorship.

The authors move on to describe some issues in the use of urinalysis to

test for recent cannabis use when in competition. A number of studies are cited that investigated the detection window of THCCOOH in the urine of infrequent and frequent cannabis users. This research culminates to three important findings that are pertinent to the testing for recent cannabis use by urinalysis. First, infrequent smokers’ urine specimens are likely to stay positive for cannabis use for up to 4 days, and for daily users, up to 4 weeks. Second, it is not possible to differentiate recent cannabis use from “residual cannabinoid excretion” without taking two urine specimens separated by 21 days of abstinence. Third, testing for alternatives metabolites in the urine is even more problematic. The authors refer to the alternatives of testing for THC, 11-OH-THC, THCV, or THCA. Each of these alternatives can either remain in the system for upwards of almost a month, or have not been tested in controlled conditions in humans. Finally, the alternative of using oral swabs instead of urine was also not supported as controlled administration conditions found positive concentrations for up to 31 hours.

In conclusion, the authors cite numerous articles that support the WADA decision for prohibiting cannabinoids in competition. Yet, the authors also highlight that testing for the presence of cannabis using urinalysis in competition shows very low specificity for testing recent use in its present form.

Huestis, M.A., Mazzoni, I. & Rabin, O. (2011). Cannabis in sport: Anti-doping perspective. *Sports Medicine* 41, 949-966.

research publications

Relevant publications examining issues to do with cannabis that have been published in the last month include the following:

Alexander, D. & Leung, P. (2011). The DSM Guided Cannabis Screen (DSM-G-CS): Description, reliability, factor structure and empirical scoring with a clinical sample. *Addictive Behaviors* 36, 1095-1100.

Cassidy, C.M., Joobar, R., King, S., & Malla, A.K. (2011). Childhood symptoms of inattention-hyperactivity predict cannabis use in first episode psychosis. *Schizophrenia Research* 132, 171-176.

Compton, M.T., Simmons, C.M., Weiss, P.S., & West, J.C. (2011). Axis IV Psychosocial problems among patients with psychotic or mood disorders with a cannabis use disorder comorbidity. *American Journal on Addictions* 20, 563-567.

Daza-Losada, M., Miñarro, J., Aguilar, M.A., Valverde, O., & Rodríguez-Arias, M. (2011). Acute blockade of CB1 receptor leads to reinstatement of MDMA-induced conditioned place preference. *Pharmacology, Biochemistry and Behavior* 100, 33-39.

Fouad, A.A. & Jresat, I. (2011). Therapeutic potential of cannabidiol against ischemia/

reperfusion liver injury in rats. *European Journal of Pharmacology* 670, 216-223.

Gillespie, N.A., Kendler, K.S. & Neale, M.C. (2011). Psychometric modeling of cannabis initiation and use and the symptoms of cannabis abuse, dependence and withdrawal in a sample of male and female twins. *Drug and Alcohol Dependence* 118, 166-172.

Guillem, E., Notides, C., Vorspan, F., Debray, M., Nieto, I., Leroux, M., & Lépine, J.P. (2011). Cannabis expectancies in substance misusers: French validation of the marijuana effect expectancy questionnaire. *American Journal on Addictions* 20, 543-554.

continued on page 3

continued from page 2

research publications

Houston, J.E., Murphy, J., Shevlin, M., & Adamson, G. (2011). Cannabis use and psychosis: Re-visiting the role of childhood trauma. *Psychological Medicine* 41, 2339-2348.

Huestis, M.A. & Mazzoni, I. & Rabin, O. (2011). Cannabis in sport: Anti-doping perspective. *Sports Medicine* 41, 949-966.

Lynch, M.E. & Campbell, F. (2011). Cannabinoids for treatment of chronic non-cancer pain; A systematic review of randomized trials. *British Journal of Clinical Pharmacology* 72, 735-744.

Maccoun, R.J. (2011). What can we learn from the Dutch cannabis coffeeshop system? *Addiction* 106, 1899-1910.

Marroun, H.E., Hudziak, J.J., Tiemeier, H., Creemers, H., Steegers, E.A., Jaddoe, V.W., Hofman, A., Verhulst, F.C., van

den Brink, W., & Huizink, A.C. (2011). Intrauterine cannabis exposure leads to more aggressive behavior and attention problems in 18-month-old girls. *Drug and Alcohol Dependence* 118, 470-474.

Mayet, A., Legleye, S., Chau, N., & Falissard, B. (2011). Transitions between tobacco and cannabis use among adolescents: A multi-state modeling of progression from onset to daily use. *Addictive Behaviors* 36, 1101-1105.

Peters, E.N., Nich, C. & Carroll, K.M. (2011). Primary outcomes in two randomized controlled trials of treatments for cannabis use disorders. *Drug and Alcohol Dependence* 118, 408-416.

Schmid, S.M., Lapaire, O., Huang, D.J., Jürgens, F.E., & Güth, U. (2011). Cannabinoid hyperemesis syndrome: An underreported entity causing nausea and vomiting of pregnancy. *Archives of Gynecology and Obstetrics* 284, 1095-1097.

Solowij, N., Yücel, M., Respondek, C., Whittle, S., Lindsay, E., Pantelis, C., & Lubman, D.I. (2011). Cerebellar white-matter changes in cannabis users with and without schizophrenia. *Psychological Medicine* 41, 2349-2359.

van Winkel, R., van Beveren, N.J., Simons, C., the Genetic Risk and Outcome of Psychosis (GROUP) Investigators, Kahn, R.S., Linszen, D.H., van Os, J., Wiersma, D., Bruggeman, R., Cahn, W., de Haan, L., Krabbendam, L., & Myin-Germeyns, I. (2011). AKT1 moderation of cannabis-induced cognitive alterations in psychotic disorder. *Neuropsychopharmacology* 36, 2529-2537.

Zvolensky, M.J., Coughle, J.R., Bonn-Miller, M.O., Norberg, M.M., Johnson, K., Kosiba, J., & Asmundson, G.J. (2011). Chronic pain and marijuana use among a nationally representative sample of adults. *American Journal on Addictions* 20, 538-542.



Each issue we will examine some of the cannabis-related stories that have received media attention across the country. The headlines are listed below in bold, with a short summary and/or commentary regarding the content of the news story beneath.

If you are interested in obtaining a copy of a particular story, please contact Clare Chenoweth at c.chenoweth@unsw.edu.au

cannabis use can shrink the brain

scotsman.com: November 1, 2011

Research from Scotland has shown that cannabis use “can lead to a loss of brain volume in people at risk of developing schizophrenia.” Fifty-seven people “aged between 16 and 25,

who were well but had a strong family history of schizophrenia” were given MRI brain scans at the beginning of the study and were then re-scanned two years later. Participants were asked about their drug use, including cannabis, in the time between the scans. Twenty-five of the participants had used cannabis and their scans revealed “a reduction in the volume of their thalamus”, an area of the brain that is “responsible for processing and relaying information.” The volunteers who had not used cannabis in the preceding two years did not experience any such reduction. Lead researcher Dr Killian Welch said “This raises the possibility that, when used by people already at elevated genetic risk of the condition, cannabis may increase the likelihood of brain abnormalities associated with schizophrenia developing.”

getting stoned can kill

Southern Highland News: November 4, 2011

This article discusses the negative effects of cannabis on areas such as mental health, the respiratory system, memory, learning, and motivation. It provides clear and evidence-based information, however the sub-editor’s choice of headline unfortunately

does nothing to dispel the fear and mythology around cannabis and other drug use. NCPIE’s website and helpline are given towards the end of the article.

state surge in cannabis use

Hobart Mercury: November 13, 2011

This article discusses the findings of an Australian Institute of Health and Welfare report released in November 2011. The report stated that in 2009-10 Tasmania was the only state in Australia in which the primary reason for people attending drug counselling was for cannabis rather than alcohol-related issues. In fact, cannabis was the principle drug of concern for 62 per cent of clients attending Tasmanian alcohol and other drug services. The article also reports the Australian Medical Association’s concerns that cannabis is now a greater long-term problem amongst Tasmanian teenagers than alcohol, and that bongs and hydroponic growing equipment are easily available for sale in Tasmania.

Yarramundi – ‘Young Men and Yarndi’ Aboriginal youth camp with Lithgow students

Dion Alperstein

In collaboration with the Lithgow Information and Neighbourhood Centre (LINC), a not-for-profit community-based organisation, NCPIC supported a youth camp in Yarramundi, NSW, with young Aboriginal men from Lithgow. The three-day camp provided seven students who identified as Aboriginal, ranging from the ages of 12-15, with education on culture, health and lifestyle, with a specific focus on cannabis-related issues. Prior to the camp a cannabis information session was organised by Sonia Cox from LINC for elders and mentors which I co-facilitated with Dr John Howard.

Owen Smith and Jim Lord, Aboriginal community members, Heath Zorz, a youth worker from the Lithgow region, along with Dean Murray an Aboriginal community liaison officer and myself, were mentors for the student participants. Each day was structured around physical team-building activities such as canoeing, abseiling and rock climbing, with educational sessions scheduled between activities.



Owen Smith chats to the students about their cannabis hip-hop rap.

Education about cannabis-related issues was based around five key themes; frequency of cannabis use by young people; changes in potency; cannabis and the foetus; cannabis in urine; and cannabis and mental health. On Day One, an interactive educational session was initiated by a quiz on what participants already knew about cannabis and its effects, followed by providing the young people with information around the five core themes and other relevant cannabis-related issues. On Day Two, the participants discussed what they believed the risks were in using cannabis. Participants used NCPIC posters as a starting point and then created posters that conveyed their own messages. After the posters were completed, each participant explained their poster to the group. Finally, on the last day, participants split into groups and explored the impact of cannabis on their lives and in their communities by creating and presenting a rap song. At the end of this session I had an informal conversation both summing up the five key themes regarding cannabis-related issues and asking the students what they learnt and how they would use this information when they returned home.

Pre- and post-cannabis knowledge based on the five identified key themes around cannabis-related issues were determined. The camp participants improved their knowledge by 34 per cent, initially scoring 46 per cent before the camp and 80 per cent at the end of the camp on the questionnaire. We have planned to have a BBQ with the participants in early 2012 to share how they have used the information gained at the camp with their peers.



Team work on the high ropes.

I was very grateful to be part of the youth camp. I not only saw the young men bond as a group, but also watched them identify and take interest in their culture, which I was told a lot of the students had never done before. They were genuinely interested in talking to me about cannabis and I have high hopes they will pass on the information we shared to their peers. This project was a pilot to ascertain whether young Indigenous men could be engaged in gaining information on cannabis and its effects using a culture, health and lifestyle camp as a vehicle. If we obtain evidence that this initiative had some positive impact, the process will be refined and further camps held.



NCPIC is a consortium led by the National Drug and Alcohol Research Centre and is an Australian Government Department of Health and Ageing initiative

For further information on NCPIC, its work and activities please contact Clare Chenoweth on (02) 9385 0218

Street address:

National Cannabis Prevention and Information Centre (NCPIC)
UNSW Randwick Campus
NDARC UNSW
R1 Level 1
22-32 King Street
Randwick NSW 2031

Postal address:

National Cannabis Prevention and Information Centre (NCPIC)
PO Box 684
Randwick NSW 2031