

# ncpic e-zine

August 2011

national cannabis  
prevention and  
information centre

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what's  
new in  
cannabis?

Two new videos have been uploaded to the NCPIC website, showcasing Aboriginal and Torres Strait Islander people's activities that deal with cannabis-related issues in their communities. The first is a short health-promotion video focused on the importance of staying away from cannabis if young people want to be healthy and succeed in sport. It was produced as part of the Weed it Out project and can be viewed at the following link: <http://ncpic.org.au/indigenous/projects/>

The second is a music video for the song 'Stay Alive' made by the Kalka community in South Australia, 'Stay Alive', written by community members Katrina and Elijah Connelly, which won the runner-up prize for the 2010 Indigenous Music Competition. View their video here: <http://ncpic.org.au/ncpic/news/competitions/article/2010-indigenous-music-competition-winner-announced?page=2>

## director's report

Jan Copeland (PhD) – Professor/Director, NCPIC

This month we have been making the final tweaks to our 2011-2012 Annual Work Plan and associated budget which has been endorsed by our new Executive Group and submitted to the Department for approval. This Work Plan continues the very successful core activities of the Centre, adds some exciting new projects and better reflects the contribution of the consortium partners across the range of NCPIC activities. Once it has been approved, we will talk about the dissemination activities associated with our ongoing projects and new projects we will be developing this year in future E-zines.

Our NCPIC Advisory Group gathered last week and it was a great opportunity to meet the new Assistant Secretary for the Drug Strategy Branch, Ms Colleen Krestensen. Her extensive experience in mental health and suicide prevention programs will be of great benefit to the sector. On a less positive note, I recently received the resignation of Professor Wayne Hall from the NCPIC Advisory Committee due to extra commitments he has taken on recently. We congratulate him on his new role as the Deputy Director (Policy) at the University of Queensland Centre for Clinical Research and thank him for his past contributions and commitment to ongoing support of the Centre.

This month saw the release of the findings of the 2010 National Drug Strategy Household Survey. This round employed only the drop and collect method of survey collection, having dropped the computer-assisted telephone interview component. The findings were complex with regard to cannabis use. Overall, the results seem

to be smoothing out the reductions in cannabis use of 2007 and are more like (but below) those of 2004. There was a significant increase in recent cannabis use from 9.1% in 2007 to 10.3%, with around 1.9 million Australians having used cannabis in the past year. This change was largely driven by increases in men aged 50-59 years (up from 5.4% in 2007 to 7.8% in 2010). On a more positive note, there has been a significant increase in the average age of initiation to cannabis use among 14-24 year olds from 15.9 years to 16.2 years and a marked (but caution due to small sample size) reduction in the proportion of daily cannabis use among those aged 14-19 years (from 10.7% of recent users in 2007 to 5.7% in 2010). There has also been a significant reduction in driving under the influence of an illicit drug (with cannabis use by far the largest component) from 25.6% to 21.5% of males in the previous 12 months. There is a great deal of further analysis to be conducted and many resulting research questions to be explored.

As part of our response, to inform the development and evaluation of innovative platforms for the dissemination of prevention and intervention messages, we have placed a pop-up box on our website that links to a survey created by NCPIC staff to examine cannabis users' views on aspects of the use of a smart phone Application or 'App' to assist them to quit cannabis. [Please click on it](#) and let us know your views.

Professor Jan Copeland

## commentary on research social gradient in initiation and transition to daily use of tobacco and cannabis during adolescence: a retrospective cohort study – a comment on Legleye and colleagues (2011)

Peter Gates

A significant body of research has investigated the factors that augment or subdue the progression from first drug use to daily use and dependence. For most people, cannabis and other drug use will not progress from being irregular or experimental. It is now widely believed that approximately one out of ten people who have used cannabis will progress to becoming dependent within ten years of first use. These statistics are moderated significantly by a number of factors, most notably: age of initiation and frequency of early use. Yet, as Legleye and colleagues (2011) describe, another factor to consider is family socio-economic status (F-SES). It is not clear how F-SES is associated with substance use as both high and low status have been shown to increase risk of initiation to drug use and daily use. In addition, age of initiation, frequency of use and school dropout or educational failure often confounds the association.

The authors utilised data from the ESCAPAD survey – a survey conducted in France that is representative of 17 year old French adolescents (n=29,393) – to determine how the transition from experimental to daily use of tobacco and cannabis is affected by F-SES (measured as a report of parents' occupation) and school situation.

In this sample of adolescents, experimental use of tobacco and cannabis began at a mean age of 13.4 and 15.1 years respectively and transitioned into daily use at 14.7 and 15.4 years. Statistical analysis showed that adolescents were more prone to initiate cannabis use if they: were male; had parents who were employed as professional/managers (high F-SES); had separated parents; had experienced drunkenness, or smoked tobacco or used other drugs. Participants were more at risk of progressing to daily cannabis use if they: were male; had parents who were employed in any occupation other than professional/managerial or as farmers (particularly in low F-SES); had parents who were separated; had experienced drunkenness, smoked tobacco or used other drugs, including cannabis, at a young age; had repeated a school year or dropped out of school.

In terms of tobacco use, participants were less prone to progress to daily tobacco use if they were: younger females, had parents who were employed as professional/managers or in intermediate occupations (mid to high F-SES) compared to parents who were unemployed; had experienced drunkenness or experimented with cannabis; or had repeated a school year or dropped out of school. Participants were more at risk of daily tobacco use if they: were older females; had parents who were employed in any job other than managerial/professional (mid to low F-SES); had separated parents, had experienced drunkenness or experimented with cannabis at an older age; or had repeated a school year or dropped out of school.

Separate Australian research using the 2004 National Drug Strategy Household Survey has demonstrated that individuals in professional or managerial occupations show lower levels of illicit drug use compared to others in the workforce. In the present study, Legleye and colleagues demonstrated that adolescents from families with parents employed as professionals or managers were more likely to simply experiment with cannabis, while adolescents from families in occupations indicative of lower SES were more likely to transition to daily cannabis use. Further, repeating a school year or having parents who were separated – factors previously shown to be markers of lower SES – consistently predicted daily use of tobacco and cannabis. The authors suggested that these findings may be partially explained by a lack of knowledge or concern for the health effects of cannabis which may be more likely amongst adolescents; from lower SES families.

Although this research does not claim that factors such as low F-SES or school failure are causally related to daily tobacco and cannabis use, the association between these variables is clear. Prevention strategies are urged to focus efforts toward individuals in the most economically deprived situations to reduce social inequality and associated problem behaviours.

**Legleye, S., Janssen, E., Beck, F., Chau, N., & Khlat, M.** (2011). Social gradient in initiation and transition to daily use of tobacco and cannabis during adolescence: A retrospective cohort study. *Addiction* 106, 1520-1531.

## research publications

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

**Ashtari, M., Avants, B., Cyckowski, L., Cervellione, K.L., Roofeh, D., Cook, P., Gee, J., Sevy, S., & Kumra, S.** (2011). Medial temporal structures and memory functions in adolescents with heavy cannabis use. *Journal of Psychiatric Research* 45, 1055-1066.

**Casadio, P., Fernandes, C., Murray, R.M., & Di Forti, M.** (2011). Cannabis use in young people: The risk for schizophrenia.

*Neuroscience and Biobehavioral Reviews* 35, 1779-1787.

**De Petrocellis, L., Ligresti, A., Moriello, A.S., Allarà, M., Bisogno, T., Petrosino, S., Stott, C.G., & Di Marzo, V.** (2011). Effects of cannabinoids and cannabinoid-enriched cannabis extracts on TRP channels and endocannabinoid metabolic enzymes. *British Journal of Pharmacology* 163, 1479-1494.

**Fakier, N. & Wild, L.G.** (2011). Associations among sleep problems, learning difficulties and substance use in adolescence. *Journal of Adolescence* 34, 717-726.

**Groth, S.W. & Morrison-Beedy, D.** (2011). Smoking, substance use, and mental health correlates in urban adolescent girls. *Journal of Community Health* 36, 552-558.

**Guindon, J. & Hohmann, A.G.** (2011). The endocannabinoid system and cancer: Therapeutic implication. *British Journal of Pharmacology* 163, 1447-1463.

**Kirkbride, J.B.** (2011). Incident cannabis use in adolescents and young adults is associated with an increased risk of developing psychotic symptoms. *Evidence-based Mental Health* 14, 70.

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## research publications

**Kozela, E., Lev, N., Kaushansky, N., Eilam, R., Rimmerman, N., Levy, R., Ben-Nun, A., Juknat, A., & Vogel, Z.** (2011). Cannabidiol inhibits pathogenic T cells, decreases spinal microglial activation and ameliorates multiple sclerosis-like disease in C57BL/6 mice. *British Journal of Pharmacology* 163, 1507-1519.

**Legleye, S., Janssen, E., Beck, F., Chau, N., & Khlat, M.** (2011). Social gradient in initiation and transition to daily use of tobacco and cannabis during adolescence: A retrospective cohort study. *Addiction* 106, 1520-1531.

**Milman, G., Barnes, A.J., Schwoppe, D.M., Schwilke, E.W., Goodwin, R.S., Kelly, D.L., Gorelick, D.A., & Huestis, M.A.** (2011). Cannabinoids and metabolites in expectorated oral fluid after 8 days of controlled around-the-clock oral THC administration. *Analytical and Bioanalytical Chemistry* 401, 599-607.

**Pahl, K., Brook, J.S. & Koppel, J.** (2011). Trajectories of marijuana use and

psychological adjustment among urban African American and Puerto Rican women. *Psychological Medicine* 41, 1775-1783.

**Parker, L.A., Rock, E.M. & Limebeer, C.L.** (2011). Regulation of nausea and vomiting by cannabinoids. *British Journal of Pharmacology* 163, 1411-1422.

**Prince van Leeuwen, A., Creemers, H.E., Greaves-Lord, K., Verhulst, F.C., Ormel, J., & Huizink, A.C.** (2011). Hypothalamic-pituitary-adrenal axis reactivity to social stress and adolescent cannabis use: The TRAILS study. *Addiction* 106, 1484-1492.

**Rentsch, J., Buntebart, E., Stadelmeier, A., Gallinat J., & Jockers-Scherübl M.C.** (2011). Differential effects of chronic cannabis use on preattentive cognitive functioning in abstinent schizophrenic patients and healthy subjects. *Schizophrenia Research* 130, 222-227.

**Russo, E.B.** (2011). Taming THC: Potential cannabis synergy and phytocannabinoid-terpenoid entourage effects. *British Journal of Pharmacology* 163, 1344-1364.

**Sagredo, O., Pazos, M.R., Satta, V., Ramos, J.A., Pertwee, R.G., & Fernández-Ruiz, J.** (2011). Neuroprotective effects

of phytocannabinoid-based medicines in experimental models of Huntington's disease. *Journal of Neuroscience Research* 89, 1509-1518.

**Schubart, C.D., Sommer, I.E., van Gastel, W.A., Goetgebuer, R.L., Kahn, R.S., & Boks, M.P.** (2011). Cannabis with high cannabidiol content is associated with fewer psychotic experiences. *Schizophrenia Research* 130, 216-221.

**Storr, C.L., Wagner, F.A., Chen, C.Y., & Anthony, J.C.** (2011). Childhood predictors of first chance to use and use of cannabis by young adulthood. *Drug and Alcohol Dependence* 117, 7-15.

**Thompson, R.G. & Hasin, D.S.** (2011). Cigarette, marijuana, and alcohol use and prior drug treatment among newly homeless young adults in New York City: Relationship to a history of foster care. *Drug and Alcohol Dependence* 117, 66-69.

**Vandrey, R., Smith, M.T., McCann, U.D., Budney, A.J., & Curran, E.M.** (2011). Sleep disturbance and the effects of extended-release zolpidem during cannabis withdrawal. *Drug and Alcohol Dependence* 117, 38-44.



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](mailto:c.chenoweth@unsw.edu.au)

### Newcastle addicts get help online

*Newcastle Herald: August 1, 2011*

A study conducted by Newcastle University's Centre for Brain and Mental Health Research and the National Drug and Alcohol Research Centre has attracted "international interest after showing

promising results." The study is testing "computer and therapist treatments for people with heavy dependence on alcohol and/or cannabis" and has found that "computerised cognitive behavior therapy and motivational interviewing over three months elicited a better response than supportive counseling." Senior Research Fellow Frances Kay-Lambkin said the research shows "great potential for computerised therapy."

### sale of synthetic cannabis restricted

*ABC Northern Tasmania: August 1, 2011*

Kronic has now been placed on the Tasmanian Government's poisons schedule. There have been concerns about whether Kronic may "produce extreme reactions including severe hallucinations, heart palpitations and psychosis."

### call to give kids drug lessons

*The West Australian: August 15, 2011*

Carmen Acosta, Acting State Director of the WA branch of Mission Australia, "wants more comprehensive drug education in primary schools as children as young as 10 dabble in alcohol and cannabis." School-based programs

"delivered at a younger age could help the small number of children vulnerable to such drugs... [and] would have the more widespread benefit of fortifying students against peer pressure in high school." Cannabis and alcohol frequently cause difficulties for those using Mission Australia's counseling and rehabilitation services, with 80 per cent of clients experiencing problems with these drugs.

### using facebook increases teenage drugging: study

*International Business Times: August 25, 2011*

According to a national survey of American attitudes on substance misuse, "time spent social networking increases the risk of teens smoking, drinking and using drugs", including cannabis. Those teenagers who engage with websites such as Facebook, are twice as likely to use cannabis than teens who do not use social networking sites. The study results indicated that "half of teens who spend any time social networking in a given day have seen pictures of kids "drunk, passed out, or using drugs on these sites. However, the study found that 9 of 10 parents do not think teens spending time on social networking sites like Facebook are likelier to drink or use drugs."

## what do we know?

### 2010 National Drug Strategy Household Survey Results – cannabis

#### key findings

- Cannabis use declined between 1998 and 2007, however between 2007 and 2010 the proportion of people in Australia who had used cannabis in the previous 12 months increased from 9.1% to 10.3%.
- The rise in recent use of cannabis was seen for males and females, as well as those aged 50–59 years and those living in New South Wales and Western Australia. Statistically significant increases in recent cannabis use were also seen among some subpopulation groups—those without post-school qualifications, students, those who were never married, and those in *Major cities* and *Inner regional* areas.
- Use of cannabis in the previous 12 months was highest in the Northern Territory (16.5%) and Western Australia (13.4%).
- The largest proportion of people who had used cannabis in the last 12 months had used it once or twice a year (34.6%), while 20.9% said they used it once a week or more (but not as often as daily).
- Most people who had used cannabis had got it from a friend or acquaintance (65.9%), and used it in a private home (86.7%).

#### current use and trends over time

Over time (1995 to 2010), the proportion of people in Australia aged 14 years or older who had used cannabis in the previous 12 months has changed. More specifically:

- The number of people in Australia using cannabis increased from 1.6 million in 2007 to 1.9 million in 2010
- After peaking in 1998, the proportion of people who had recently used cannabis had been decreasing, but in 2010, it increased significantly from 2007, from 9.1% to 10.3%, an increase that was reflected for both males' and females' use
- In 2010, there was an increase in the proportion of people who had used cannabis recently in all age groups, though the only statistically significant increase was seen in those aged 50–59 years (from 3.8% in 2007 to 5.5% in 2010)
- Since 1998, recent cannabis use has generally decreased in the younger age groups, but either increased or remained stable for the older age groups (40 years or older).

#### cannabis use, by sex

In 2010, it was estimated that about 1.9 million people aged 14 years or older had used cannabis in the previous 12 months, and more than 700,000 people had used it in the week before the survey. Females were less likely than males to have used cannabis at any frequency. Males were twice as likely as females to have smoked cannabis in the previous week (5.2% for males compared with 2.6% for females).

#### cannabis use, by social characteristics

Cannabis use varies by demographic characteristics. Across Australia, for people aged 14 years or older, some population groups were more likely to report recent cannabis use than the general population. More specifically:

- Socioeconomic status, education, and remoteness classification had little influence on a person's recent cannabis use.
- Unemployed people and students were more likely than other labour force categories to have used cannabis in the previous 12 months, and retirees were the least likely (1.8%), while those who were currently employed had the highest proportion of ex-users (34.1%) and the lowest proportion who had never used cannabis (54.4%).

- People who had never married were more than twice as likely to have recently used cannabis than those who were either married or divorced, separated or widowed (19.9% compared with 6.5% and 7.5%, respectively).
- After removing the effects of different age structures, Indigenous Australians were 1.6 times as likely as non-Indigenous Australians to have recently used cannabis.
- Those who identified as homosexual or bisexual were almost twice as likely to have used cannabis recently as those who identified as heterosexual (26.0% compared with 10.0%).

#### cannabis and health

In 2010, there appeared to be a relationship between a person's cannabis use and his or her mental health. For people in Australia aged 18 years or older:

- Those who had reported using cannabis in the previous 12 months (18.7%) or in the previous month (20.5%) were more likely to have been diagnosed or treated for a mental illness than people who had not used in the previous 12 months (11.3%).
- Those who had used cannabis in the previous month (19.1%) or previous 12 months (16.3%) were more likely to report high or very high levels of psychological distress compared with those who had not recently used cannabis (9.1%).
- Those who had used cannabis in the previous month were more likely to assess their health as fair or poor than those who had not used in the previous 12 months.

#### frequency of use

In 2010, for people in Australia aged 12 or older who had used cannabis in the past 12 months:

- The most common frequency of use was once or twice a year (34.7%), with a further 13% of recent users reporting using cannabis every day.
- Those in older age groups were more likely to use cannabis once a month or more often (56.8% for those aged 40 years or more, compared with 31.2% for those aged 12–17 years).

- About half of users aged 30 years or older used cannabis once a month or more often, which was higher than the proportion for those aged 29 years or younger.
- For both male and female recent users (aged 14 years or older), the most common frequency of use was once or twice a year (30.0% and 42.3%, respectively), but males were more likely than females to use cannabis once a week, while females were slightly more likely to use every few months.

**source of supply**

In 2010, 65.9% of recent users aged 14 years or older obtained their

cannabis from a friend or acquaintance, while 20.8% obtained their cannabis from a dealer. Males obtained drugs from a dealer in larger proportions than females (22.9% and 17.3%, respectively), and were twice as likely to grow their own cannabis as females (5.3% compared with 2.6%).

**usual place of use**

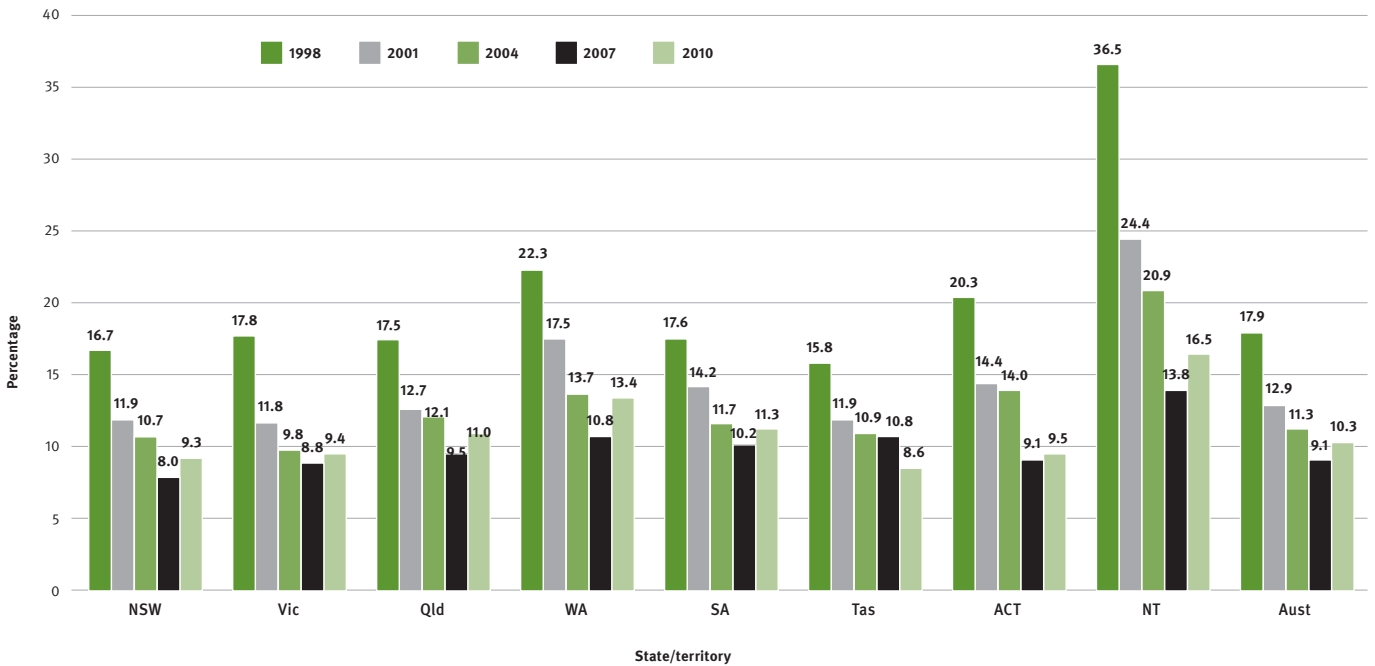
In 2010, for recent cannabis users aged 14 years or older, the most common place for using cannabis was in a private home (86.7%), followed by private parties (45.7%). With larger proportions of males using cannabis than females, males were more likely than females to use cannabis in various

places. This difference was most notable in use at private parties (49.1% males, 39.9% females), public places (22.0% males, 16.0% females), and in a car (17.7% males, 12.0% females). There were no statistically significant differences in place of use between 2007 and 2010.

This information was sourced from the 2010 National Drug Strategy Household Survey Report:

**Australian Institute of Health and Welfare.** (2011). *2010 National Drug Strategy Household Survey report.* Drug statistics series no. 25. Cat. no. PHE 145. Canberra: AIHW.

**Recent use of cannabis, by people aged 14 years or older, by state/territory, 1998-2010**



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

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