## One third of adult smokers have a mental illness

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We write in response to Simon Chapman who questioned the estimate of smoking prevalence among people with mental illness in Australia [1]. Unfortunately Chapman has made a basic statistical error that has caused him to substantially underestimate the prevalence of smoking in people with mental illness. Sourcing data from the 2004 National Health Survey conducted by the Australian Bureau of Statistics [2] he reports that 21% of Australian adults were daily smokers, with smoking prevalence of 17.7% among people with no long-term mental illness. He then subtracts these figures to estimate 3.3% of the adult population as being daily smokers who have a mental illness. This is not correct. When two proportions are calculated from two disjoint populations (ie. people with no long-term mental illness, and people with a long-term mental illness) with separate denominators, the proportions do not add to a total. Indeed, if there were no relationship between smoking and mental illness, one would expect the same smoking rate (21% in this case) among those both with and without mental illness.

Chapman goes on to use his incorrect figures to suggest that the proportion of smokers who have a mental illness is much lower than previously reported, claiming only 16% of Australia's adult smokers have a mental illness, almost half the 30% reported by the ABS in the 1997 National Survey of Mental Health and Wellbeing [3]. If there were any doubt about the significant association between smoking and mental illness, it should be resolved with the recent publication by the ABS of the results from the 2007 National Survey of Mental Health and Wellbeing [4]. The ABS estimated that 20% of the adult population had a mental illness in the 12 months prior to the survey. Of those adults with a mental illness, 1,160,000 were current smokers - a smoking prevalence of 36%, compared with 18.8% among adults with no mental illness. In total, 3,570,000 adults were current smokers, so people with a mental illness represent 32.5% of current smokers, 2.5% higher than was reported in 1997 [3], and comparable to the figure reported from the National Comorbidity Survey in the United States [5].

Despite the substantial proportion of Australia's smokers who have mental health problems, Quit campaigns and anti-smoking groups have given little attention to this major segment of their target population. Indeed, addressing mental illness is not mentioned in any of the 18 measures proposed by the National Preventative Health Taskforce [6] and the issue barely rates a mention in their report. Comorbid mental health conditions are likely to impact on a person's ability to quit smoking, and affect the way people relate to anti-smoking campaigns that are targeted at the general community. If one-third of Australia's anti-smoking resources were devoted to people with mental illness, it is quite possible that the smoking rate could be substantially reduced. One could argue on social justice grounds that an even larger expenditure could be justified as mental illness can impair cognitive abilities in a way that requires support for some sufferers to do things that mentally healthy people can do without additional support. We hope that the publication of the 2007 National Survey of Mental Health and Wellbeing will encourage Australia's anti-smoking groups to finally commit to substantive action to help reduce smoking incidence and prevalence among the one-third of

Australia's smokers who are simultaneously dealing with mental health problems, including

anxiety and stress disorders, depression and other substance abuse problems.

## References

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