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This paper has been prepared by Quitline to inform how it can best support its clients with mental illness to successfully quit smoking. As overall smoking rates decline, smoking is becoming concentrated within disadvantaged groups, whether defined by socio-economic status, ethnicity or by such indicators as mental illness or co-morbidity with other addictions. In practice, many of these indicators overlap making cessation for people in these groups harder to achieve. This paper is a selected review to highlight key findings from the literature on this topic. In short, smokers with mental illness want to stop smoking, they need support and both their mental and physical health will benefit if they succeed. The paper has been widely distributed in recognition of the developing sector-wide efforts to ensure better cessation support for people with mental illness.

### **Smoking and quitting in persons with mental illness: a review of selected literature**

Life expectancy for persons with chronic mental illness is 25 years less than that of the general population. The major causes of death are diseases associated with smoking; including cardiovascular disease, lung disease and diabetes<sup>1</sup>.

It is estimated that in New Zealand, approximately 33% of all cigarette equivalents are smoked by those with a mental illness<sup>2</sup> which is in line with United Kingdom experience<sup>3</sup>.

Smoking rates among persons who experience mental illness are disproportionately high. In 2003-2004, the smoking rate in adults with a 12-month mental illness in New Zealand was 32%, compared to 21% in the general population<sup>2</sup>. This is lower than was found in Australia and the United States, where 36.2% and 40.1% of those with any mental illness are smokers, respectively<sup>4</sup>. There is a positive relationship between the severity of mental illness experienced and smoking prevalence within that population. For example, smoking prevalence among those with schizophrenia may be over 80%<sup>5</sup>.

Not only are people with mental illness more likely to smoke, but they also consume more cigarettes. Australian data show that the average number of cigarettes smoked per day by current smokers with no mental distress is 12, which increases to 19 per day in smokers with severe psychological distress<sup>4</sup>.

Not only are people with mental illnesses more likely to smoke, and smoke more heavily than other smokers; smokers are more likely to experience poorer mental health. Data from The International Tobacco Control Policy Evaluation Project (New Zealand arm) reveal that adult smokers are significantly more likely to have been diagnosed with a mental illness (20.3%) than non-smokers (11.5%). Smokers were also significantly more likely to have moderate (20.3% vs 13.6%) or high to very high (9.7% vs 5.3%) probability of anxiety or depressive disorder compared to non-smokers<sup>6</sup>.

The relationship between smoking and mental illness appears to be bi-directional. That is, smoking contributes to mental illness and mental illness contributes to smoking behaviour. In a large longitudinal study of young Australian women, participants who smoked had 1.21 - 1.62 higher odds of having poor mental health at follow up. Women with poor mental health had 1.12 - 2.11 higher odds of smoking at follow up<sup>7</sup>.

In a Dutch study of depression and anxiety disorders, participants who developed mental illnesses after starting smoking were analysed to determine the relationship between the age at which they started smoking and the onset of mental illness. The time period between smoking onset and the onset of depression and/or anxiety disorders was 5 years shorter for those who started smoking at an early age compared to those who started smoking later. Age at onset of smoking predicted the age of onset of anxiety disorders after controlling for the effects of gender, education and childhood trauma<sup>8</sup>.

Data from the 2004/2005 wave of the New Zealand Survey of Families, Income and Employment (SoFIE) show unsuccessful quitters are much more likely to experience high to very high levels of psychological distress, compared to long-term ex-smokers (adjusted odds ratio of 1.73). These findings suggest that part of the significant association between smoking and mental illness may be explained by increased levels of psychological distress among current smokers who made an unsuccessful quit attempt in the last year<sup>9</sup>.

However, along the spectrum of mental illnesses, even those with the most severe conditions want to quit and these smokers attempt to quit at similar rates to the general smoking population<sup>10</sup>.

A recent meta-review of observational studies of quitters compared to continuing smokers showed that smoking cessation is associated with reduced depression, anxiety and stress and improved positive mood and quality of life. The effect sizes of these findings were the same for those with and without existing psychiatric disorders. The effect sizes were equal or larger than those of antidepressant treatment for mood and anxiety disorders<sup>11</sup>.

Smoking plays a unique role in the lives of people with mental illness. Smoking has in the past been perceived as offering a sense of control over symptoms. Especially for inpatients of psychiatric wards, smoking was seen as offering a freedom when most other aspects of their lives seemed to be beyond their control. As such, smoking may have provided mental health consumers with a sense of identity and friendship - especially important as this group contains some of the most socially isolated and stigmatised members of society<sup>12</sup>.

Smokers with mental illness also face unique re-enforcers of this addiction and barriers to quitting. For instance, inpatient environments may have served to promote smoking behaviour, through peer and staff modelling and other factors such as boredom. Health professionals, family and unfortunately Quitlines may have been dismissive of the impact of smoking on the person's wellbeing in the context of their mental illness<sup>12</sup>.

People with mental illnesses are often excluded from clinical studies of Nicotine Replacement Therapy (NRT). However, there is evidence that NRT can safely be used in this population with good levels of success<sup>13</sup>.

Smoking, and quitting smoking, can have an effect on the metabolism of a number of drugs, including those used to treat mental illnesses. It would be beneficial, therefore, for Quitline to develop appropriate processes to allow it to work in collaboration with mental health providers to ensure that quitting does not affect the treatment of these clients.

This document can be found on the Quitline website at:

<http://www.quit.org.nz/67/helping-others-quit/research/smoking-and-quitting>

## References

- <sup>1</sup> Colton, C. and Manderscheid, R. (2006). Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Preventing Chronic Illness*, 3 1-14.
- <sup>2</sup> Tobias, M., Templeton, R. and Collings, S. (2008). How much do mental disorders contribute to New Zealand's tobacco epidemic? *Tobacco Control*, 17 (5) 347-350.
- <sup>3</sup> Royal College of Physician and the Royal College of Psychiatrists. (2013). *Smoking and Mental Health*.
- <sup>4</sup> Lawrence, D., Mitrou, F., and Zubrick, S.R. (2009). Smoking and mental illness: results from population surveys in Australia and the United States. *BMC Public Health*, 9 (285).
- <sup>5</sup> Keltner, Norman L.; Grant, Joan S. (2006). "Smoke, Smoke, Smoke That Cigarette". *Perspectives in Psychiatric Care* 42 (4): 256-61.
- <sup>6</sup> Wilson, N., Weerasekera, D., Collings, S., Edwards, R. and van der Deen, F. S. (2010). Poorer mental health in many New Zealand smokers: national survey data from the ITC Project. *The New Zealand Medical Journal*, 123 (1326) 129-132.
- <sup>7</sup> Leung, J., Gartner, C., Hall, W., Lucke, J. and Dobson, A. (2012). A longitudinal study of the bi-directional relationship between tobacco smoking and psychological distress in a community sample of young Australian women. *Psychological Medicine*, 42(6) 1273-82.
- <sup>8</sup> Jamal, M., Willem Van der Does, A.J., Penninx, B.W.J.H. and Cuijpers, P. (2011). Age at smoking onset and the onset of depression and anxiety disorders. *Nicotine and Tobacco Research*, 13 (9) 809-819.
- <sup>9</sup> van der Deen, F.S., Carter, K.N., Wilson, N. and Collings, S. (2011). The association between failed quit attempts and increased levels of psychological distress in smokers in a large New Zealand cohort.
- <sup>10</sup> Lasser, K., Wesley Boyd, J., Woolhandler, S., Himmelstein, D.U., McCormick, D., Bor, D.H. (2000). Smoking and mental illness: a population based prevalence study. *JAMA*, 284(20) 2606-2610.
- <sup>11</sup> Taylor, G., McNeill, A., Girling, A., Farley, A., Lindson-Hawley, N. and Aveyard, P. (2014). Change in mental health after smoking cessation: systematic review and meta-analysis. *British Medical Journal*, 348: 1151.
- <sup>12</sup> Lawn, S., Pols, R. and Barber, J. (2002). Smoking and quitting: a qualitative study with community-living psychiatric clients. *Social Science and Medicine*, 54, 93-104.
- <sup>13</sup> Banham, L. and Gilbody, S. (2010). Smoking cessation in severe mental illness: what works? *Addiction*, 105, 1176-1189.