

Executive Summary

Smoking and mental illness: Costs

A report by Access Economics for SANE Australia

People with mental illnesses smoke at around twice the rate of other Australians, which raises particular health and public policy concerns.

Based on the Australian Bureau of Statistics (ABS) data, 31.8% of adults with a mental illness are daily smokers compared to 17.7% of adults without mental illness, and over one quarter of Australians (25.7%) have some form of mental illness. People with schizophrenia have a smoking prevalence rate of around 90% (de Leon and Diaz, 2005).

People with a mental illness thus comprise 38.3% of all adult smokers.

Overall there are 1.27 million Australian people with a mental illness who smoke (PWAMIS), 672,000 males, and 596,000 females.

People with a mental illness also tend to smoke at least 16% more heavily than those without. Compton (2005) reports that in 1992, people with a mental illness consumed 26.2 cigarettes a day, where their mentally healthy counterparts only consumed 22.6. Moreover, a higher proportion of these cigarettes appear to be cheap – but illegal and toxic – ‘chop chop’ tobacco (Moeller-Saxone et al, 2005).

People with mental illnesses pay an estimated \$2.8 billion dollars a year in tobacco excises – which is more than they receive in Disability Support Pensions – yet there is little if any evidence of government-funded quit campaigns targeted at this group. On the 1992 consumption ratios above, this would indicate that people with mental illnesses consume at least 42% of the cigarettes consumed in Australia – and thus pay at least that percent of all tobacco excises. (However given the fall in consumption by average smokers since then, this ratio is likely to be significantly higher. The average Australian smoker’s consumption has fallen to 14.4 a day (Germain et al, 2006), while a recent study (Dixon, 2007) found that daily consumption by Americans with schizophrenia is 35% higher than this, at 19.4 cigarettes a day.)

While smoking does provide short-term relief in relation to feelings of anxiety and depression, ironically people who take up smoking are also two to four times more likely to develop a mental illness – suggesting a complex relationship between smoking and mental illness since mental illness is also a risk factor for smoking (Breslau et al, 1991; Goodman and Capitman, 2000; Breslau, 1995; Amering et al, 1999; Weiser, 2004; Jablensky et al, 1999).

Depression, anxiety disorders and substance abuse disorders (principally alcohol abuse) are the most common mental

illnesses in Australia. This report also investigates the impacts of the particularly high rates of smoking (around 90%) among people with schizophrenia and bipolar disorder (de Leon and Diaz, 2005) – conditions which are ‘low prevalence’ for mental illnesses, but severe in their economic and quality of life impacts. For example, mental illness is associated with around 90% of suicides (World Health Organization (WHO), 2002b). Smoking leads to a range of well-known detrimental health impacts. It is the greatest risk factor for cancer, which has now overtaken cardiovascular disease (also highly smoking related) as the greatest cause of disease burden (premature death and suffering) in Australia (Begg et al, 2007). Smoking has the greatest impact of the 14 major health risks (lifestyle, physiological, social and environmental) identified by the Australian Institute of Health and Welfare (AIHW), accounting for around one in every nine Australian deaths.

Information-based public health campaigns have been successful in encouraging Australians to quit or not start to smoke, with overall prevalence in smoking having declined over the last 20 years to 21.3% of the adult population in 2005 (ABS, 2005). However, efforts to discourage people with a mental illness from smoking are rare – indeed, the tobacco industry has targeted marketing at this disadvantaged group (Chapman and Balmain, 2004).

Costs

This report attempts to quantify the costs to all Australians, including passive smokers, of the ‘excess’ smoking by people with mental illnesses. If people with mental illnesses smoked at the same rate as the general population both groups would bear the same costs – this report looks at how much higher these costs are for those with mental illnesses, due to the fact that they smoke so much more.

The total financial cost to Australia from excess smoking by people with a mental illness is estimated as \$3.52 billion dollars in 2005.

Costs of cigarettes: In economic terms, a beneficial product or service is called a ‘good’, while a harmful one is a ‘bad’ (eg, garbage that people pay to have removed). Smoking tobacco, which is both harmful and addictive, is a form of abusive consumption that, particularly for people with a mental illness, is not based on a full understanding of the consequences or on rational choice. The cost is measured as the resources (labour, capital, raw materials) spent to produce cigarettes, reflected in the price net of excise, that could be put to alternative beneficial use. The cost of resources used on excessive tobacco purchases

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by PWAMIS in 2005 was \$437 million.

Health costs: Smoking is a risk factor for a number of health conditions – notably lung, oesophageal and other cancers; ischaemic heart disease, stroke, and other cardiovascular conditions; chronic obstructive pulmonary disease (COPD) and others, as well as impacts from passive smoking (eg, sudden infant death syndrome, low birth-weight and asthma). Health system expenditures, public and private, include hospitals (inpatient and outpatient), specialist and general practitioners medical services, pharmaceuticals, allied health and other health services. The excess cost of treatment for PWAMIS is estimated from AIHW data as \$432 million per annum.

Productivity costs: Both smokers and people with a mental illness have overall lower productivity and employment levels than non-smokers and those without mental illness. The combined effect for excess smoking among PWAMIS is estimable from ABS National Health Survey data, with the total productivity cost estimated as \$2.2 billion.

Carer costs: The value of formal and informal community care provided to those with a mental illness who have smoking related diseases was estimated as \$50 million in 2005.

Other indirect costs: The debilitating nature of the cancers, heart, lung and other diseases caused by excessive smoking by PWAMIS also means that they incur extra costs for aids, home modifications and other indirect costs, which are estimated as \$83 million a year.

Deadweight losses: ‘Transfer costs’ such as lost taxation revenues and welfare payments (disability support pensions and unemployment benefits) do not of themselves represent real economic costs but rather financial redistributions among economic entities in society. However, like health system and other expenditures paid for by government, they must be financed primarily through raising taxation, which imposes an administrative and efficiency burden on the economy known as a ‘deadweight loss’. The DWL is estimated as \$331 million.

The financial costs of excess smoking by PWAMIS are dwarfed by the loss of wellbeing (the loss of healthy life through disability and premature death) known as the burden of disease (BoD), valued at \$29.4 billion and bringing the total to \$33.0 billion in 2005.

This represents the value of the pain and suffering from the diseases and injuries that excess smoking causes in PWAMIS, based on a value of a statistical life year of \$3.7 million. Not all of this is borne by the PWAMIS themselves; passive smoking

causes children to lose over \$113.2 million of healthy life through sudden infant death syndrome, low birth weight and asthma.

Individuals bear 53% of the financial costs while Federal government bears a further 29% of the costs (see the figure below). If the BoD is included, individuals bear 95% of the costs.

Cost effective interventions

Smoking cessation interventions have been shown to be cost effective for smokers at the population level. Popular interventions include brief advice, behavioural counselling, nicotine replacement therapy (NRT) and bupropion (an antidepressant). Smokers with a mental illness face particular barriers to quitting, such as drug side-effects due to interactions between smoking and other medications, less ability to afford smoking interventions (such as nicotine patches) due to greater levels of poverty among this group than for the general population, and risk of relapse.

While evidence on the efficacy of smoking cessation interventions for PWAMIS is mixed, many studies found success rates of interventions among smokers with a mental illness similar to those that have been reported for the general population. The positive implication of this is that smoking interventions can work for people with a mental illness.

However, given the still high rates of smoking among people with a mental illness, the corollary of being similarly successful at quitting when an attempt is made is that, to this point, quit attempts are fewer among PWAMIS.

The most cost effective interventions suggested by this brief analysis include proactive telephone counselling with either Bupropion or NRT (both under \$10,000/DALY averted).

All interventions except brief physician advice were relatively cost effective (less than GDP per capita per DALY averted, a World Health Organization benchmark (WHO, 2002a)).

Bibliotherapy interventions such as the *SANE SmokeFree Zone* booklets are low cost (although evidence for efficacy is not yet available).

More detailed cost effectiveness analysis is recommended for specific subgroups.

Interventions that encourage PWAMIS to attempt quitting and increase their access to smoking cessation interventions have the potential to significantly reduce the health and other economic costs of excess smoking for this disadvantaged group. ■

This report was commissioned from Access Economics by SANE Australia, a mental health charity working for a better life for people affected by mental illness. It was funded by the *Friends of SANE Australia*, who had no part in the direction, analysis or findings contained in this report.

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A PDF copy of the full report is available for download from www.sane.org

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A report by Access Economics for SANE Australia

Executive summary and recommendations

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Almost forty per cent of smokers are people with a mental illness, yet they receive little or no support to quit . . .

Smoking and Mental Illness: Costs – an Access Economics report for SANE Australia – finds that 38.3% of smokers now have a mental illness. Despite forming one of the largest groups in society who smoke, they are given little or no support to quit and pay a terrible cost for this neglect.

The Facts

While the overall rate of smoking has dropped dramatically in Australia, people with a mental illness smoke at around twice the rate of the general population. They therefore make up a large proportion of those who smoke.

- Australia generally has one of the lowest adult smoking rates in the world, with just 17.7% of those without a mental illness being daily smokers.
- Among people with a mental illness, however, the smoking rate is almost double. For people with schizophrenia, the situation is even worse, with around 90% being smokers.
- Overall, there are 1.27 million adults with a mental illness who smoke, making up 38.3% of all smokers in Australia.
- People with a mental illness are not only more likely to be smokers, they also smoke more, at least 16% more heavily than other smokers. A higher proportion of the cigarettes they smoke are made from the illegally grown and even more toxic 'chop chop' tobacco.
- At least 42% of all cigarettes sold in Australia are consumed by people with a mental illness.
- Reasons for the high rate of smoking among people with a mental illness are complex, and include factors related to symptoms, medication, poverty and lack of access to effective quit programs and products. SANE research suggests that a majority of people with a mental illness who smoke would like to quit, but face barriers in cost and lack of access to support.
- While some government policies acknowledge people with a mental illness as a high-risk group, there are only a handful of programs in the whole country which actually do anything about it. ■

The Costs

Australians with a mental illness pay a terrible and disproportionate price for their higher rate of smoking, through the impact on their health, as well as financial and other costs. The total cost is calculated as \$33 billion a year.

- Smoking is a leading cause of disease and premature mortality, accounting for one in nine deaths in Australia every year. It is responsible for 80% of lung cancers, increases the risk for many other forms of cancer, doubles the risk of stroke and increases the risk of heart attack. The higher smoking rate among people with a mental illness, therefore, leads to higher rates of all these diseases and their consequences.
- The human cost of loss of healthy life through disease, disability and premature death – known as burden of disease – is calculated at \$29.4 billion a year.
- The health system costs of treating this excess level of disease caused by the higher rate of smoking by people with a mental illness is \$432 million a year.
- The extra cost to carers for looking after people with a mental illness with smoking-related diseases is estimated at \$50 million a year.
- People with a mental illness pay about \$2.8 billion a year in tobacco tax – dwarfing the \$1.8 billion extra over five years for mental health services promised by the Australian government in the 2006 COAG Initiative.
- The total cost to Australia of the higher rate of smoking by people with a mental illness (including burden of disease) is \$33 billion a year. Individuals bear 95% of this cost. ■

Recommendations

SANE Australia welcomes the Rudd Labor Government's commitment of \$15 million to the National Tobacco Strategy. SANE calls on all Australian governments, Quit organisations, mental health services and relevant health agencies to also implement the following recommendations urgently.

- Quit programs need to be researched and developed specifically tailored for people with a mental illness who wish to stop smoking, which address the particular challenges they face in giving up cigarettes.
- Equitable resourcing and subsidies are required for these programs and for Nicotine Replacement Therapy, so that people with a mental illness who wish to quit are not disadvantaged.
- Focused promotion of, and referral to, these programs is essential so that people with a mental illness who wish to quit are made aware of, and are able to access, the help they need.
- Increased consultation is needed with people with a mental illness, their family carers and the mental health sector, on ways to improve policies and programs. ■



SANE resources

SANE Australia has developed a range of practical publications to help people with a mental illness quit smoking and lead a healthier life.

For details, call 1800 18 SANE (7263) or visit the SANE Bookshop at www.sane.org