



# ASH Scotland Tobacco use and people with mental health problems November 2010

Working for a tobacco-free Scotland

## Key points:

- smoking is a neglected epidemic in people with mental health problems
- people with mental health problems have a higher burden of disease than the general population yet their physical health needs are less likely to be met
- giving up smoking won't worsen mental health and will improve overall health
- people with mental health problems may need structured support both to quit and to stay quit
- smoking, reducing smoking and using NRT may affect some medications
- there is emerging evidence that varenicline is safe and effective for people with mental health problems
- smoke-free mental health settings are achievable
- reducing exposure to second-hand smoke improves health.

**Around 13,500 people die in Scotland every year from tobacco-related illness. This accounts for 25% of all deaths and people with mental health problems are overly represented in this figure.**

## Prevalence

Smoking rates for people with mental health problems are on average, twice as high as those for the general public<sup>1</sup>. Research suggests that around 88% of people living with schizophrenia smoke<sup>2</sup> and 68% are classed as heavy smokers (25 or more cigarettes daily)<sup>3, 4</sup>. Tobacco use is also more prevalent across the spectrum of mental illnesses<sup>5</sup>, including bipolar disorder, than in the general community. To compound this high prevalence, smoking is associated with poorer mental health outcomes in bipolar and schizoaffective disorder<sup>6</sup>.

## Smoking-related diseases amongst people with severe mental health problems

Because people with mental health problems use tobacco at greater rates, they suffer greater smoking-related medical illnesses and mortality<sup>7</sup>. People with schizophrenia have a 20% shorter life expectancy than the general population and are more vulnerable to many conditions, including diabetes, coronary heart disease, hypertension and emphysema<sup>8, 9</sup>. Despite the high prevalence of cardiovascular risk factors in people with schizophrenia, they tend to be both under-diagnosed and under-treated<sup>12</sup>. A number of studies<sup>13</sup> support the view that patients with schizophrenia may be dying prematurely as they are not gaining access to or receiving the same medical care as the general population.

## Why people with mental health problems smoke

Most people start smoking in their mid to late teens before they realise how dangerous and addictive the stimulants in cigarettes are; nicotine triggers the release of dopamine in the brain so smokers learn to associate cigarettes with pleasure and when they stop smoking they may experience withdrawal then associate relief with the next cigarette, and so begins the withdrawal/feedback loop. One Scottish study<sup>14</sup> found that people with schizophrenia started smoking at an average age of mid-teens just like the general population, and that of those people 90% had started smoking before their illness began. Some research appears to indicate that people with schizophrenia smoke as a kind of 'self-medication' to improve memory<sup>15</sup> or reduce symptoms<sup>16</sup> but the reasons for the higher rates of smoking amongst people with mental illness are complex and not yet clearly understood. It should be remembered that people with mental illness are subject to the same peer pressure and inducements from the tobacco industry as the general population.

## Links between smoking and depression

By the year 2020, depression is estimated to become the second largest contributor to the disease burden in the world, while tobacco use is estimated to be the largest single health problem in terms of mortality and disability<sup>17</sup>. There is an apparent association between smoking and depression<sup>18</sup> as depression is over-represented among smokers and smoking is over-represented among individuals with depression<sup>19</sup>. A 26-year long Danish study<sup>20</sup> seems to confirm that smoking is associated with increased risk of developing depression. A study in the British Journal of Psychiatry<sup>21</sup> suggest that the link between smoking and depression arises from two routes; the first involving common underlying genetic and environmental factors and the second a direct path in which smoking increases the risk of depression. This evidence is consistent with the conclusion that there is a cause and effect relationship between smoking and depression in which cigarette smoking increases the risk of symptoms of depression. However, giving up smoking is associated with significant mental health gains, particularly in relation to symptoms of anxiety<sup>22</sup> and depression<sup>23</sup>.

## Smoking cessation

Treating tobacco dependence is a worthwhile intervention for people with severe mental illness and may be just as effective as for the general population<sup>24</sup>; in people with stable psychiatric conditions it should not worsen mental health.

## Smoking cessation and drug interactions

Smoking affects the metabolism of various medications, including diazepam, haloperidol (partial), olanzapine (partial), clozapine, mirtazapine (partial), tricyclic antidepressants, barbiturates and benzodiazepines. Abrupt cessation of smoking is associated with a potentially serious risk of toxicity in patients taking clozapine<sup>25</sup>. Plasma clozapine levels need to be monitored closely and adjustments made in dosage, if necessary, for at least six months after cessation. A guide to which medications must be carefully monitored when used in conjunction with cigarettes or when attempting to stop smoking is available online in '*Smoking and patients with*

*mental health problems*' by Ann McNeill, at:

[www.nice.org.uk/niceMedia/documents/smoking\\_mentalhealth.pdf](http://www.nice.org.uk/niceMedia/documents/smoking_mentalhealth.pdf)

Another positive benefit of smoking cessation may be a reduction in drug levels.

**Varenicline (trade name Champix)** is a drug prescribed to assist smoking cessation. Clinical trials during drug development excluded patients with active psychiatric illnesses leaving the risks associated with varenicline use in this patient population unknown. A review of the evidence in Expert Opinion on Drug Safety<sup>26</sup> has concluded that although the risk of potential neuropsychiatric events is evident through voluntary reporting systems and reported cases in the literature, multiple studies and case reports support the use of varenicline in the mental health population.

## Smoke-free mental health units

In March 2006, Scotland introduced the law that banned smoking in enclosed public spaces such as workplaces, pubs and restaurants. However, designated rooms in psychiatric hospitals and psychiatric units were exempt from the ban. In January 2009, the Scottish Government consulted stakeholders, service users and the public on the best way to achieve smoke-free mental health services in Scotland. The consultation sought views on the production of detailed guidance without the need to amend existing legislation. As no clear consensus emerged on how to move towards smoke-free mental health services, guidance was viewed as a solution which avoided legislative bureaucracy and could effect change quickly. The guidance should be available in early 2011.

In 2008 mental health units in England went smoke-free by law. It has been found<sup>27</sup> that patients generally approved of the smoke-free policy, provided they could smoke outside, however structured support is recommended to ensure that opportunities for health promotion in a vulnerable population are not being missed.

However, there are barriers to overcome. A survey of staff attitudes toward smoking-related policies in England found that psychiatric staff were almost three times more likely to oppose implementation of a smoking ban in their workplace than general hospital staff (29% v 10%)<sup>28</sup>. Smoking seems to have become entrenched in the culture of mental health settings and may have been used as a way to placate or to engage with patients<sup>29</sup>. A paper which reviewed the findings from 26 international studies found that staff generally anticipated more smoking-related problems than actually occurred and that there was no increase in aggression, use of seclusion, discharge against medical advice or increased use of as-needed medication following the ban<sup>30</sup>.

A study of smoke-free policies across psychiatric inpatient settings in Australia<sup>31</sup> attempted to identify factors that may contribute to the success or failure of smoke-free initiatives. Factors associated with greater success of smoke-free initiatives were:

- clear, consistent, and visible leadership
- cohesive teamwork
- extensive training opportunities for clinical staff
- fewer staff smokers

- adequate planning time
- effective use of nicotine replacement therapies
- and consistent enforcement of a smoke-free policy.

Smoking bans in psychiatric settings can lead to better patient care. Before a ban in Italy, it was clear that little thought was given to the impact of smoking because it was such a way of life for staff and patients and some staff even believed that their smoking with patients had therapeutic value. However, after an initial phase of opposition, both patients and staff adapted to the new policy<sup>32</sup>. Fears that banning smoking causes an increase in aggression are unfounded; in a systematic review of relevant American, Canadian and Australian data, the frequency of aggression, use of seclusion, discharge against medical advice or use of as-needed medication did not increase following a ban<sup>33</sup>. Non-smoking environments and support for quit attempts improve the overall health and well-being of both staff and patients.

### **Human rights argument – the ‘Rampton’ ruling**

As mental health units are often acting as a person’s home, especially if that person has been ‘sectioned’, it has been suggested that an individual has the ‘right’ to smoke. In July 2009, the Court of Appeal confirmed that the right to smoke was **not** protected by Article 8 of the Human Rights Act 1998 (HRA)<sup>34</sup>. Article 8 – Right to privacy ([1] everyone has the right for his private and family life, his home and his correspondence) is a qualified right and allows an individual choice only if it does not endanger others. Not only did the Court of Appeal undertake a detailed analysis of the rights protected by Article 8, it also considered whether, for those detained in hospital on a long-term basis, the hospital was their home. The court noted that a mental health unit was an establishment maintained wholly or mainly for the reception and treatment of persons suffering from mental disorder (as defined by the [UK] Mental Health Act 2007) and that Article 8 conferred a right to respect for private life with which there could be no interference except in the interests of, amongst other things, public safety, the prevention of disorder and crime, and the protection of health, morals, or the rights or freedoms of others. The court held that the smoking ban did not have a sufficiently adverse effect on a patient’s physical or moral integrity. It was necessary and proportionate for the protection of the health of both patients and staff.

### **Second-hand smoke and mental health**

Second-hand smoke exposure (SHS) is associated with psychological distress and risk of future psychiatric illness, according to new research based on evidence from the Scottish Health Survey<sup>35</sup>. This research suggests that harmful effects of second-hand smoke go beyond physical health.

Inhaling second-hand smoke causes cancer in non-smokers<sup>36</sup> and many of the cancer-causing chemicals are present in higher concentrations than in the smoke inhaled by the smoker themselves<sup>37</sup>. Even thirty minutes of exposure to second-hand smoke can reduce blood flow in a non-smoker’s heart<sup>38</sup>. There is clear evidence for reducing exposure to second-hand smoke<sup>39,40,41</sup>, whether at population level or within mental health units.

## Resources

**Case studies:** The Scottish Mental Health Working Group and ASH Scotland with support from CRUK have produced a set of case studies illustrating smoking cessation successes in mental healthcare services.

[www.ashscotland.org.uk/ash/files/SMHWG%20Case%20Studies.pdf](http://www.ashscotland.org.uk/ash/files/SMHWG%20Case%20Studies.pdf)

**Report on the mapping of existing smoke-free provisions within residential mental health services in Scotland: A snapshot of current policies and practice** (March 2010) Partnership Action on Smoking and Health (PATH) and ASH Scotland. A simple mapping exercise was conducted to understand current policy and practice regarding smoking and exposure to smoke such as the implementation of smoke-free policies for buildings and grounds; the provision of stop-smoking support (pharmacological aids and behavioural therapy) for service users and practitioners; and brief advice or specialist training in stop-smoking support for staff.

Available to download as pdf from:

[www.ashscotland.org.uk/projects/inequalities/mental-health](http://www.ashscotland.org.uk/projects/inequalities/mental-health)

**Training:** Partnership Action on Tobacco on Health (PATH) offer a one day face-to-face training session called '**Raising the issue of smoking with mental health service users**'. The training pack focuses on training participants to effectively raise the issue of smoking and refer mental health service users to stop-smoking services. Participants will gain an awareness of the benefits of stopping smoking for people with mental health issues, become aware of the relevance of promoting stopping smoking within their role and be able to refer people to local stop-smoking services for support. For more information visit: [www.ashscotland.org.uk/ash/6166](http://www.ashscotland.org.uk/ash/6166) or phone: 0131 220 9400.

The UK Forum for Mental Health in Primary Care has produced:

**Pharmacy guidance on smoking and mental health** (February 2010) which may be downloaded from:

[www.rcgp.org.uk/get\\_involved/rcgp\\_standing\\_groups/mental\\_health/resources.aspx](http://www.rcgp.org.uk/get_involved/rcgp_standing_groups/mental_health/resources.aspx)

**Quitting in mind: a guide to implementing stop smoking support in mental health settings.** Lisa McNally and The London Development Centre. Quitting in Mind is a resource designed to keep pace with its subject as new research or treatment developments are incorporated as soon as they emerge.

[www.quittinginmind.net/index.html](http://www.quittinginmind.net/index.html)

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