



# Smoking and quitting smoking among prisoners in Australia

2012

## Summary

This bulletin presents results from the 2012 National Prisoner Health Data Collection (NPHDC), focusing on smoking and smoking cessation behaviours of prisoners in Australia. The decline in smoking rates among the general population seen in the last 20 years has not been mirrored among prisoner populations. While smoking rates have decreased in the community, due to increased awareness of the effects on health and the perception of smoking as socially unacceptable, smoking rates have remained high in prisons.

### Smoking is very common among prisoners

In 2012, 84% of prison entrants were current smokers, which is around 5 times the proportion of the general community. Indicative data from a smaller sample of prisoners expecting to be released (prison discharges) suggest similar rates of current smoking (80%) at the time of leaving prison.

### Prisoners share characteristics common among current smokers

Some groups in the general population are more likely to smoke, and to smoke more, including those who are male; aged 20-49; Indigenous; with the lowest socioeconomic status; unemployed or unable to work; and those with lower levels of educational attainment (AIHW 2011). Prison sees a concentration of people with these characteristics: 67% of prison entrants who smoked were unemployed or unable to work at the time of entering prison and 36% had not completed Year 10 or above at school.

### Smoking and other risky behaviours are related

Three-quarters (75%) of entrants who smoked had used illicit drugs in the 12 months before prison, compared with less than one-third (29%) of those who had never smoked. About half of both ex-smokers (51%) and current smokers (48%) were at risk of alcohol-related harm compared with around one-quarter (27%) of those who had never smoked.

## Smoking behaviour changes in prison...

While the same proportion (80%) of dischargees reported being a current smoker both at entry to prison and currently, there were some changes in smoking behaviour in prison. About 1 in 5 (20%) dischargees were ex- or non-smokers, however, 5% who were non-smokers on entry to prison reported that they started smoking while in prison. One-third of dischargees (33% overall, or 42% of current smokers) reported that they smoked more at exit than they had on entry to prison.

## ...but few successfully quit

Almost half (46%) of prison entrants who were current smokers expressed a desire to quit smoking, however translating this into successful quit attempts is difficult. Quitting smoking in prison may be more difficult than in the general community. While 35% of dischargees tried to quit in prison, only 8% successfully quit smoking while in prison, meaning that over one-quarter (27%) of dischargees attempted to quit but were unsuccessful.

## Policies on smoking within prisons are changing

In recent years, jurisdictions across Australia have begun to trial or implement restrictions on smoking in prison.

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## Introduction

This bulletin reports on tobacco smoking (referred to in this bulletin as 'smoking') amongst prisoners in Australia. It is generally acknowledged that prisoners have high rates of smoking. The challenges associated with reducing these rates, given the characteristics of the prison population and prison environment, are discussed. A brief overview of policy changes in this area is also provided.

The bulletin adds to existing research relating to smoking behaviours among prison entrants and discharges, which is relatively limited, particularly on a national level. Data are sourced from the 3rd national data collection on prisoner health in Australia, conducted in 2012. For the first time, the 2012 collection was extended to include not only prison entrants and a selection of current prisoners, but also prisoners about to be released to the community – referred to as 'dischargees'. Participation rates were relatively low (see Box 1) and the data should be treated as indicative. Nevertheless, the information provides useful insights, particularly into this group of prisoners' experience of smoking during their time in prison.

## Context

Smoking is a major source of illness and death in Australia, and contributes to more deaths and drug-related hospitalisations than do alcohol and illicit drug use combined. It is a major risk factor for coronary heart disease, stroke and cancer and for a variety of other diseases and conditions (AIHW 2012). Passive smoking (that is, exposure to second-hand smoke) is a public health issue, as it can cause coronary heart disease and lung cancer in non-smoking adults, and induce and exacerbate mild to severe respiratory effects (Scollo & Winstanley 2008). Given the adverse effects of smoking on smokers and non-smokers, smoking is now banned in most indoor public spaces in the community.

Through public health campaigns and an increased awareness of the health risks associated with smoking, smoking rates in Australia have declined steadily since the early 1970s. In the general population, rates have decreased from 30% of people aged over 14 years in 1985 to 15% in 2010 (AIHW 2012).

With smoking rates now relatively low in Australia, behaviour that was once socially acceptable and widely distributed across the population, is now more strongly associated with particular socioeconomic and demographic characteristics. There is evidence that the prevalence of smoking among Australians is higher among marginalised sub-populations, including Aboriginal and Torres Strait Islander people, those from culturally and linguistically diverse backgrounds, and people with mental and substance-use disorders. Some characteristics that may be common among these groups include poor educational attainment, unemployment, social isolation, financial dependence and social stress (AIHW 2011; Baker et al. 2006). These issues are related both to current smoking and to a lower likelihood of quitting smoking (Lawrence et al. 2013).

Smoking is often seen as a mechanism for managing stress, but there are differing opinions about this relationship. It is commonly perceived to be a way of promoting relaxation and calm, it may be a distraction from problems, or it may be a public demonstration that the smoker is under stress (Scollo & Winstanley 2008; Carter et al. 2001).

More than one-fifth of Australian adult smokers also have anxiety disorders, smoking at rates more than double that of adults with no lifetime history of mental disorders (Lawrence et al. 2010). A qualitative study found smoking to be a 'strong social norm' among people with mental health problems. The physical health and financial benefits of quitting smoking were perceived to be outweighed by the costs to mental health, and significance was placed on the potential loss of a coping mechanism (Kerr et al. 2013).

Smoking is also related to alcohol and other drug use. Hughes and Kalman (2006) found that smokers with alcohol problems were more nicotine-dependent than smokers with no alcohol problems, and found it harder to quit smoking. Tobacco smoking and cannabis use are related in the community, with regular cigarette smoking more common among cannabis users than non-users, and cigarette smokers likely to report earlier onset of cannabis use than non-smokers who use cannabis (Agrawal et al. 2013).

Prisoners share many of the demographic and socioeconomic characteristics of current smokers, and also exhibit high levels of stress (AIHW 2013). This means they are more likely than the general population to be smokers. Tobacco smoking is a major and established part of prison culture, serving a variety of purposes for prisoners including as a common ground for socialising. It may be used as a form of currency; a means of social control; a symbol of the few remaining privileges the group has; and as a form of stress relief (Butler et al. 2007). Smoking can also help prisoners deal with stressful situations such as transfers, court appearances and prison visits (Richmond et al. 2009). It is suggested that one of the most significant roles of smoking in prison is alleviating boredom. Boredom is seen as a major obstacle to quitting smoking in prison, therefore increased availability of recreational activities, employment and education may assist prisoners who wish to quit or who must quit smoking due to smoking restrictions or bans (Office of Inspector of Custodial Services WA 2008).

### *Smoking cessation*

There are health benefits to quitting smoking which apply across all ages, regardless of the length of smoking history, and also for those with smoking related diseases (Huber & Mahajan 2008). Smoking results in chronic and acute changes to the body, but smoking cessation can reverse acute changes, slowing any disease progression and providing potential for damage reversal (Scollo & Winstanley 2008).

Quitting smoking has two major components—making an attempt to quit, and maintaining cessation after the quit attempt. Both are difficult due to the nicotine in tobacco, which causes addiction when smoked, chewed or sucked. Quitting smoking often occurs through either nicotine replacement therapy (NRT) and/or behavioural modification. NRT replaces the nicotine in blood that would usually come from cigarettes, but without the numerous other disease-producing chemicals that also enter the body when tobacco is smoked (Scollo & Winstanley 2008).

Types of NRT include nicotine gum, transdermal nicotine patches, nicotine lozenges, nicotine nasal spray, nicotine inhalers and nicotine lollipops. Many smokers require one or both of these mechanisms to help them quit, although others spontaneously quit smoking successfully and maintain that status (Huber & Mahajan 2008).

Analysis of determinants of smoking cessation in a nationwide study in Poland found the main reasons for quitting were health concerns (61%) and the cost of cigarettes (12%). The implementation of smoking bans in public places was not nominated as a reason, although it was related to an increased rate of quitting. Older age, high education attainment and awareness of health consequences were associated with quitting long-term (one year or more). Among males, those who were employed were twice as likely to quit as those who reported being unemployed (Kaleta et al. 2012). In the United States, a national study found factors associated with successful quitting included having rules against smoking in their homes; being aged 35 and over and having at least a college education; and being married or living with a partner (Lee & Kahende 2007). A household study in England found that following the introduction of smoke-free legislation there was a significant temporary increase in the percentage of smokers attempting to quit (Hackshaw et al. 2010).

The prison environment presents unique circumstances and additional obstacles to overcome on the path to successfully quitting. Circumstances which make it even more difficult to quit smoking or which can cause a worsening of smoking habits or a return to smoking include:

- the intense stress that arises from a lack of liberty and absence of family
- crowding in prisons which results in non-smokers sharing cells with smokers—a study in New South Wales prisons found that while it was against correctional policy to place non-smoking prisoners with smoking prisoners, around 30% shared a cell with a smoker (Belcher et al. 2006)
- transfers to other prisons (scheduled or unscheduled) or court appearances for hearings
- nicotine dependence and use of nicotine to reduce stress (Makris et al. 2012).

In prison, there is also a greater prevalence of smoking roll-your-own tobacco, which may have specific health risks.

As in the community, prisoners may fail to quit smoking because of a lack of desire to quit or for other reasons. A study of prisoners in Greece found that among those who denied wanting to quit smoking, all cited lack of liberty and the absence of family as the main reason (100%). For prisoners who attempted to quit but failed, the main reasons given were lack of liberty and absence of family (49%) and sharing cells with other smokers (27%) (Makris et al. 2012).

Transfers between prison facilities disrupt quit attempts due to the lack of opportunity for medical follow up (Makris et al. 2012). In one study of prisoners in a New South Wales prison, transferral to another prison was the most common reason for failed attempts at smoking cessation. Such transfers can occur for a number of reasons including court appearances, medical appointments, to make room for other prisoners arriving at the prison, to split up gangs, for prisoner's safety and for security classification reasons (Richmond et al. 2006).



Nicotine withdrawal may be experienced during attempts to quit smoking, though few people experience all the symptoms and it is unlikely they will be experienced all at once. Symptoms include irritability and anxiety, difficulty concentrating, restlessness, problems falling asleep, craving tobacco, dizziness, coughing and appetite changes (NSW Government 2007). Several of these symptoms may have significant implications for prison management and for maintaining control within a custodial environment. Change in mood may be a particular issue, and if a large proportion of prisoners was experiencing withdrawals at the same time, staff would need adequate preparation to deal with this (Office of the Inspector of Custodial Services Western Australia 2008).

Maintaining abstinence from smoking can be difficult once released from prison. Relapse to smoking after release can occur for up to 90% of prisoners in the first few weeks following release (Clarke et al. 2011). Further, smokers with current substance-use disorders, anxiety or mood disorders (common among prisoners) are more likely to experience more nicotine withdrawal symptoms and are more likely to relapse to smoking (Weinberger et al. 2010).

Given their socioeconomic and demographic characteristics, prisoners are unlikely to access smoking-cessation and health-promotion programs in the community, therefore their time in prison should be optimised to make improvements to their health (Australia's Health 2002; Belcher et al. 2006). While trialling cessation programs, Richmond and colleagues (2012) found encouraging abstinence rates—particularly given the stresses associated with being in prison—and concluded that offering smoking-cessation interventions in prisons is worthwhile. The development of a Smoking Cessation Centre in a Greek prison, dedicated to helping prisoners quit smoking by empowering them with knowledge, counselling and treatment, was shown to be successful when the proportion of prisoners who attempted to quit smoking increased to 73% of prisoners (from 23% before the Centre was established) (Makris et al. 2012).

### *Prison smoking bans and restrictions*

In Australia there are increasing restrictions on smoking in public places, with bans on smoking indoors in public areas being common. Internationally, prisons are beginning to mirror these restrictions. However, smoking bans in prison are complex and have been controversial and difficult to implement around the world (O'Dowd 2005; Lasnier et al. 2011; Ritter et al. 2011).

While smoking rates among prisoners are much higher than in the general population, smoking is also one of few privileges that prisoners are allowed (Baker et al. 2006). Any smoking bans can be difficult to enforce because tobacco remains in the possession of the prisoner (Lasnier et al. 2011). Further, complete smoking bans in prisons can create a number of problems associated with the development of black markets for the trade of tobacco (Butler et al. 2007; Cropsey et al. 2008).

On 1 July 2011 New Zealand became the first country in the world to introduce a total ban on smoking in prisons. In the first 2 months of the ban there was an influx of contraband tobacco and the black market price doubled. However, after a tightening of checks and entry-point restrictions, no further issues were reported. Three factors thought to be related to the success of the New Zealand policy include:

- i) comprehensive preparation over 12 months by the Department of Corrections and individual prisons
- ii) the availability, range and standard of smoking cessation support
- iii) an approach that was comprehensive (both indoor and outdoor) rather than partial, making it easier to enforce (Collinson et al. 2012).

A study of air quality inside a New Zealand prison before and after the smoking ban showed an average 57% decline in indoor fine-particulate concentrations, indicating a reduction in smoking and exposure to second-hand smoke following the ban (Thornley et al. 2013). This reduction in the risks associated with passive smoking will not only benefit the health of prisoners, but also that of correctional centre staff. Almost half (44%) of non-smoking correctional officers have been found to exhale carbon monoxide at levels similar to light to heavy smokers (McCaffrey et al. 2012).

There is a noted difference in outcomes between forced and voluntary abstinence from smoking (Lincoln et al. 2009). Some argue that, rather than imposing bans, the focus of prisons should be on assisting prisoners to quit smoking. If the prisoner recommences smoking upon release, the ban has not generated the same health benefits as may have been made through support to quit (Butler et al. 2007). Interviews with prisoners about smoking bans have shown that a perception of choice and sense of control may be important in being able to 'stay quit' (Thibodeau et al. 2012).

Butler and Stevens (2011) argue that smoking cessation is generally not considered a major priority in correctional settings, and highlight the importance of engaging both staff and prisoners and of establishing peer support groups to empower prisoners and staff to take responsibility for their health.

## Analysis of the 2012 National Prisoner Health Data Collection (NPHDC)

### Box 1: Technical notes about the NPHDC

Data in this bulletin are sourced from the 2012 National Prisoner Health Data Collection, conducted by the Australian Institute of Health and Welfare (AIHW). Included are data from 794 prison entrants, just over 4,000 prisoners visiting the clinic and about 9,000 prisoners taking medication. New in the NPHDC in 2012 are indicative data from 387 prison discharges (prisoners expecting to be released in the 4 weeks following the collection).

All entrants, prisoners and discharges aged 18 years or over were eligible to participate. Some entrants and discharges declined to participate, and sometimes for operational reasons they were not able to be provided with the opportunity to participate. The participation rate for discharges was lower than for entrants (55% compared with 70%), which reflects the difficulties in identifying exact release dates for prisoners and the various means by which a prisoner can be released, including straight from the courts. Estimates that consider those who were not approached suggest participation rates of about 60% for entrants and 28% for discharges. It is expected that the participation rate will improve beyond the first year of data collection.

Entrant and discharge data are not directly comparable because they are discrete populations, rather than being the same person followed up from entry to discharge from the prison. Data has been provided from all states and territories except Western Australia, and were collected over a 2-week period in May 2012. Participants in the collection were predominately male (84–90% across the entrant, clinic, medication and dischargee groups), with a median age of 30–31 years; and, compared with the general population, a disproportionate number were Indigenous (31–34%). The data collected from prison entrants and discharges are self-reported, and therefore may underestimate such issues as mental health. The predominance of males in the sample may reduce the reliability of data relating to females. For further information, see *The health of Australia's prisoners 2012* (AIHW 2013).

### What does the NPHDC tell us about smoking behaviour among prison entrants and discharges?

#### *Prison entrants' smoking status*

Five in six (84%) prison entrants reported being current smokers, with 78% being daily smokers, and a further 6% being weekly or irregular smokers. Fewer than 1 in 10 (9%) reported having never smoked. Similar proportions of males (78%) and females (80%) reported being daily smokers. The mean age that prisoners started smoking was 14 years.

There were differences in the smoking status of Indigenous and non-Indigenous entrants, but the proportion who reported being daily smokers was the same (78%). Among Indigenous entrants, 11% reported being weekly or irregular smokers, compared with 3% of non-Indigenous entrants. Only 5% of Indigenous entrants had never smoked, compared with 12% of non-Indigenous entrants.



The majority (88%) of entrants were aged 18–44, and the smoking status of these entrants was very similar, with 86% being current smokers, and the rest either ex-smokers (5%) or those who had never smoked (7%). For prison entrants aged over 45, there was a noticeably different pattern, with almost one-quarter (24%) reporting never having smoked, and 64% being current smokers.

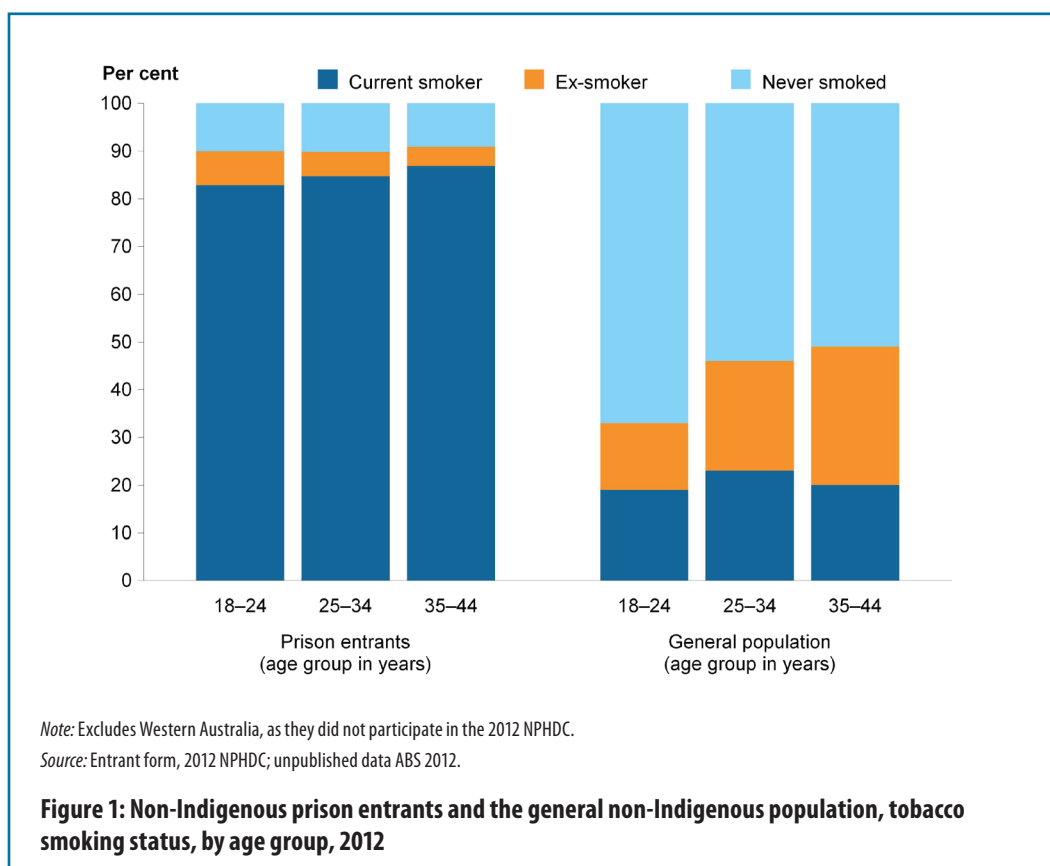
Trend data available from those jurisdictions which participated in all three data collections conducted to date—Queensland, South Australia and the Australian Capital Territory—show a steady and high proportion of current smokers throughout the history of the NPHDC: 85% in 2009, 83% in 2010 and 83% in 2012.

### *Smoking in prisons compared with in the general community*

Across all ages, it was far more common for prison entrants to be current smokers compared with the general community (Figure 1). While two-thirds of the general community aged 18–24 had never smoked (67%), just 1 in 10 prison entrants the same age had never smoked (10%). Although the proportion of ex-smokers increased with age in the general community (for example, ranging from 14% of 18–24 year olds to 29% of 35–44 year olds), the opposite pattern occurred among prison entrants where younger prison entrants aged 18–24 were more likely than those aged 35–44 to be ex-smokers (7% and 4% respectively) (Figure 1) (see AIHW 2013 for more detail).

Non-Indigenous prison entrants were 4 times as likely to be current smokers compared with the non-Indigenous general population aged 18–44 (84% and 21%, respectively). Among non-Indigenous prison entrants of this age, slightly more females than males reported being current smokers (87% and 83%, respectively). Conversely, among the non-Indigenous general population, females were less likely to report being current smokers (18% compared with 24% of males). More than half of the non-Indigenous general population had never smoked (56%), compared with just 1 in 10 (10%) non-Indigenous prison entrants.

(Note that the comparison population used for this analysis is restricted to the non-Indigenous general population aged 18–44 to make it more comparable to the entrant population, which is substantially younger and has a higher proportion of Indigenous people. When the entire Australian adult population is considered, a smaller proportion (16%) reported being current smokers.)

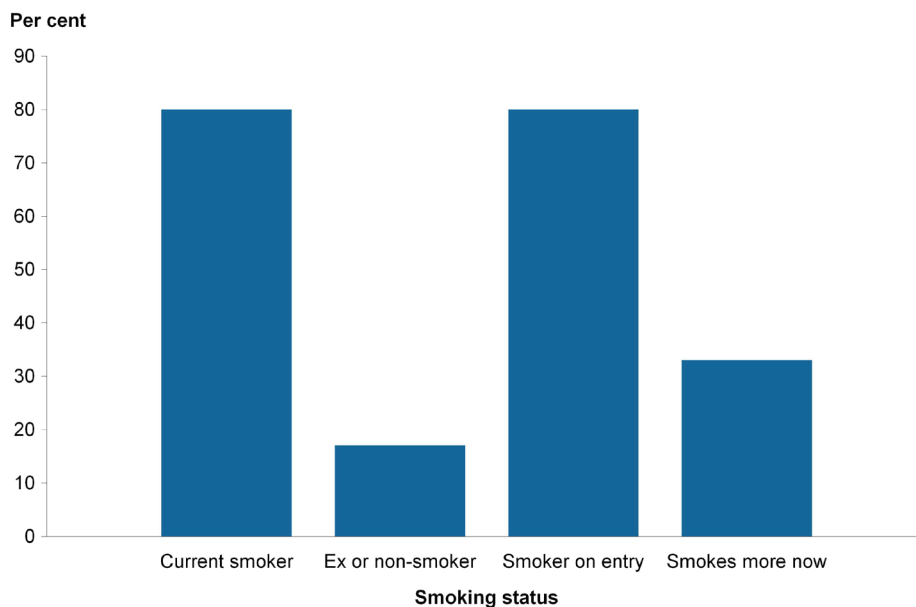


### Changes to smoking while in prison

Overall, 80% of discharges reported being smokers on entry and the same proportion were current smokers as they were approaching being released (80%). Nevertheless, some changes were observed. While about 1 in 5 discharges (20%) were ex- or non-smokers, 21 (5%) who were non-smokers on entry to prison reported that they started smoking while in prison. One-third of discharges (33% overall, or 42% of current smokers) reported that they smoked more at exit than on entry to prison (Figure 2). Thirty discharges (8%) successfully quit smoking while in prison. Some discharges did not respond to one or both of these questions and thus their smoking status currently and/or upon entry was unknown.

Among all discharges, females (52%) and the youngest discharges (those aged 18–24) (51%) were the most likely to report smoking more on exit than on entry to prison. A higher proportion of Indigenous (38%) than non-Indigenous (32%) discharges reported smoking more since being in prison.

Given the relatively low participation of discharges in this collection (see Box 1), it is difficult to say whether these increases in smoking behaviour are reflective of the population more generally. It is hoped that higher participation rates among discharges in future data collections will strengthen findings.



*Notes*

- 1. Excludes Western Australia, as they did not participate in the NPHDC.
- 2. Caution should be exercised when interpreting dischargee data. For details see Box 1.

Source: Discharge form, NPHDC 2012

**Figure 2: Prison dischargees, smoking status and changes in smoking behaviour, 2012**

## What are the common characteristics among prison entrants who were smokers?

Prison entrants who were current smokers were more likely to possess certain characteristics when compared to ex-smokers or prison entrants who had never smoked (Table 1). Entrants who were smokers were more likely than ex-smokers or non-smokers to have completed Year 9 or below as their highest level of schooling (36% compared with 21% and 23%, respectively). Current smokers were also much more likely than ex-smokers or non-smokers to be unemployed or unable to work prior to entering prison (67%, 39% and 41% respectively). This is consistent with findings in the general population that smokers have lower levels of educational attainment on average and are more likely to be unemployed (AIHW 2011; Baker et al. 2006).

More than three-quarters (77%) of prison entrants who reported being current smokers had a history of being in prison, compared with 46% of ex-smokers and 59% of non-smokers (Table 1). They were also about twice as likely as ex-smokers or non-smokers to have a history of being in juvenile detention (24% compared with 13% and 11%, respectively). Recent homelessness was much more common among current smokers; with about 2 out of 5 (39%) reporting living on the streets or in short-term or emergency accommodation, compared with 14% who had never smoked and 21% of ex-smokers.

These results should be interpreted with caution due to the small proportion of prison entrants who are ex-smokers and non-smokers; relative to those who are current smokers.

**Table 1: Prison entrants, factors associated with smoking, 2013**

	Current smoker		Ex-smoker		Never smoked	
	Number	Per cent	Number	Per cent	Number	Per cent
Highest level of completed schooling below Year 10	237	36	8	21	17	23
Unemployed or unable to work	443	67	15	39	30	41
History of prior imprisonment	508	77	18	46	43	59
History of juvenile detention	158	24	5	13	8	11
Homeless before prison including living in short-term or emergency accommodation	256	39	8	21	10	14
<b>Total</b>	<b>664</b>	<b>100</b>	<b>39</b>	<b>100</b>	<b>73</b>	<b>100</b>

*Notes*

1. Excludes Western Australia, as they did not participate in the 2012 NPHDC.
2. Columns do not sum to the total as each prison entrant may appear in more than one row.

Source: Entrant form, 2012 NPHDC.

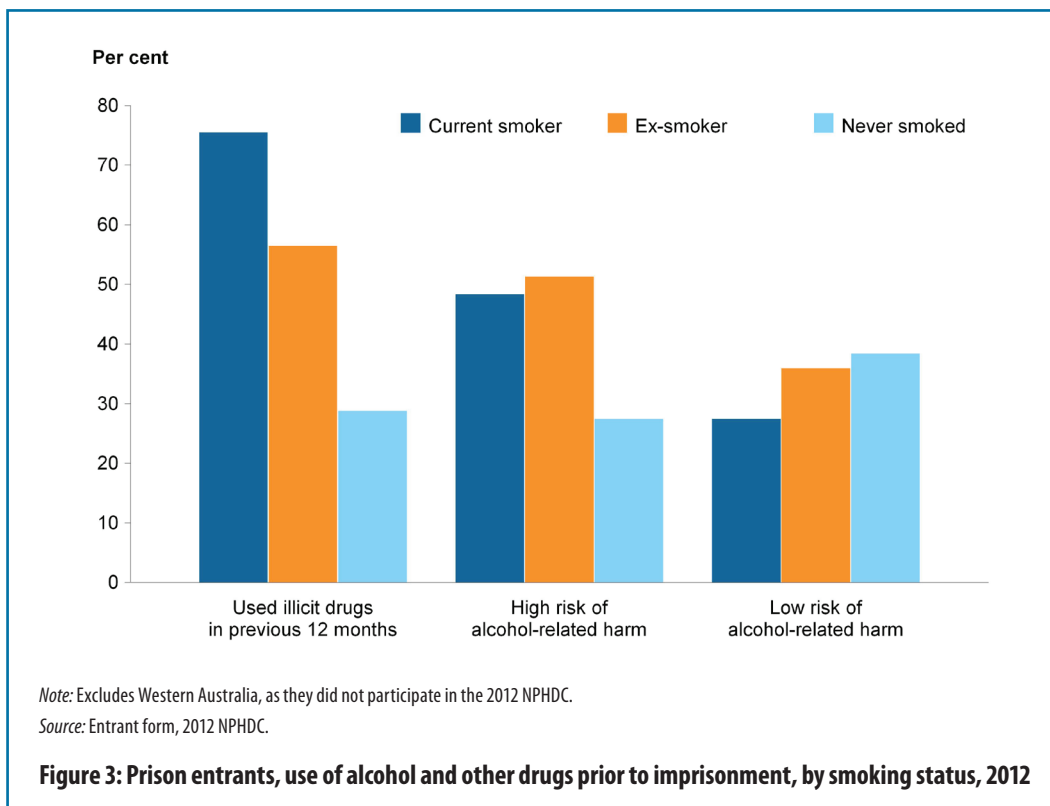
## How do smoking behaviours interact with other aspects of prisoner health?

### *Alcohol and other illicit drug use among smokers*

A history of illicit drug use was more common among prison entrants who were smokers than those who were not. Three-quarters (75%) of entrants who smoked had used illicit drugs in the 12 months before prison, compared with less than one-third (29%) of those who had never smoked and just over half (56%) of entrants who were ex-smokers (Figure 3).

Entrants were asked questions about their alcohol consumption over the previous 12 months, to assess their risk of alcohol-related harm. Those who had never smoked were most likely to report consuming alcohol at low-risk levels before entering prison (38% compared with 36% of ex-smokers and 27% of current smokers). The relationship between smoking and being at high risk of alcohol-related harm, however, is more complex. Prior to prison, about half of both ex-smokers (51%) and current smokers (48%) were consuming alcohol at high-risk levels compared with around one-quarter (27%) of those who had never smoked.

Typical daily alcohol consumption is one measure used to calculate alcohol risk scores (for details see AIHW 2013). Among entrants who were current smokers, almost 2 out of 5 (38%) reported consuming 7 or more drinks on an average day prior to prison entry when drinking, compared with 18% of those who had never smoked.



### Physical health conditions

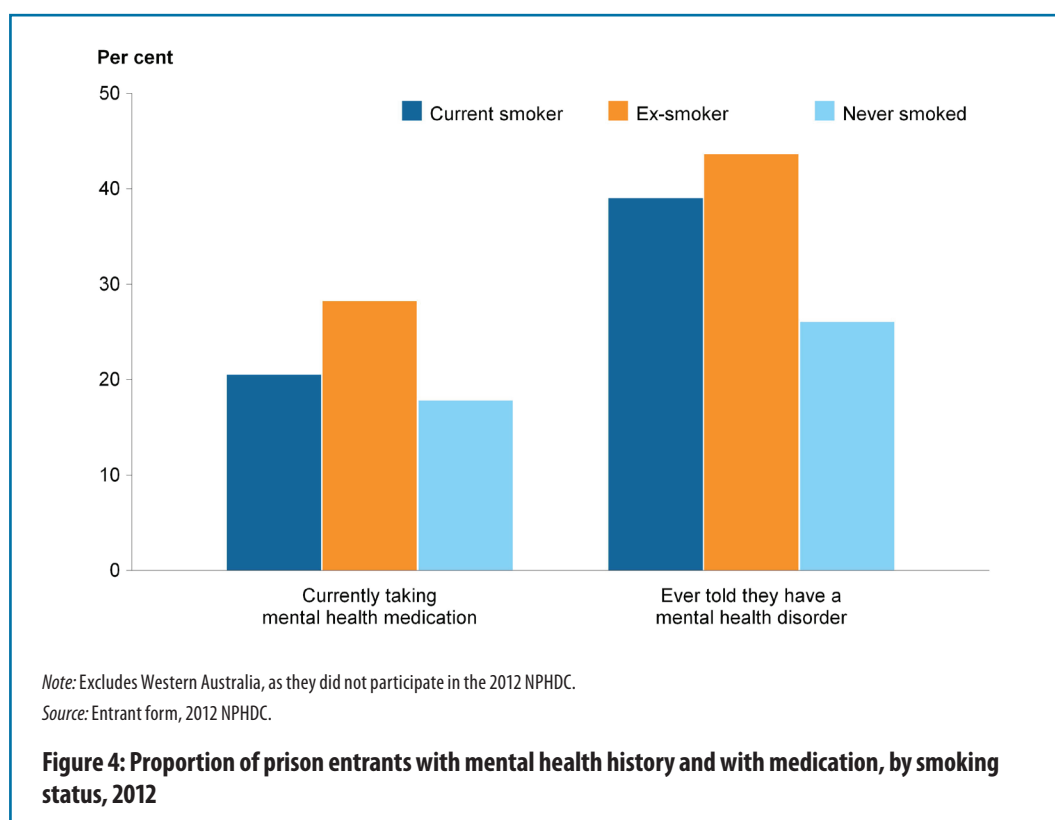
Prison entrants generally are more likely to have chronic conditions such as asthma, cardiovascular disease and diabetes than the general population (AIHW 2010). Among prison entrants, smoking further increases the differences. About one-third of prison entrants who were current or ex-smokers (32% and 33%, respectively) reported ever being diagnosed with a chronic health condition, compared with 27% of entrants who had never smoked. A slightly higher proportion of current smokers reported currently having asthma, compared with entrants who had never smoked (17% and 15%, respectively). Ex-smokers were the least likely to have asthma (13%).

Indigenous Australians have higher rates of diabetes both in the community generally (AIHW 2008) and within prisons (AIHW 2013). In combination with their high rates of smoking, this constitutes a particular health risk for this group, as smoking increases the incidence of diabetes-related health complications (AIHW 2008). Twenty-one out of 23 entrants who reported currently having diabetes were also current smokers, including proportionally twice as many Indigenous than non-Indigenous entrants.

### Mental health and psychological distress

As part of the NPHDC, prison entrants were asked whether they had ever been told that they have a mental health disorder by a doctor, psychiatrist, psychologist or nurse; and whether they were currently taking medication for a mental health disorder.

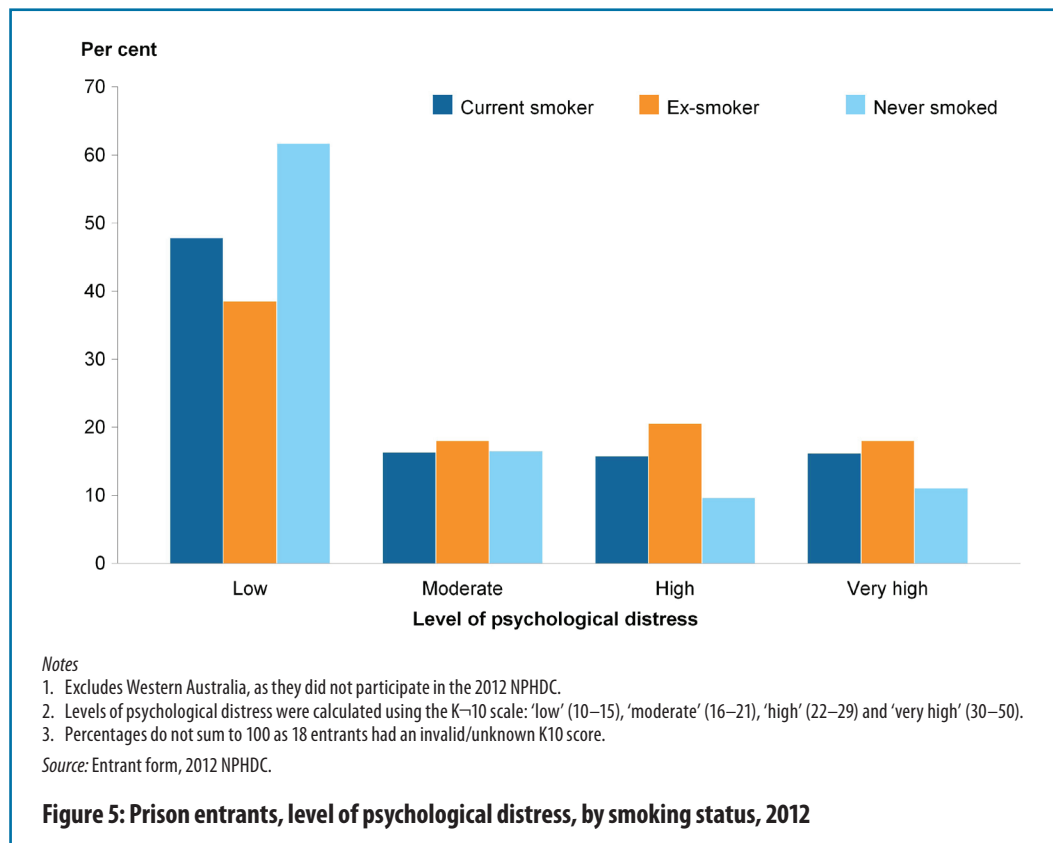
Mental health issues were more common among both current and ex-smokers than among those who had never smoked. Prison entrants who were ex-smokers were most likely to have ever been diagnosed with a mental health disorder (44%) and to be currently taking mental health medication (28%). About 2 out of 5 (39%) current smokers had been told they had a mental health disorder; and 1 in 5 (20%) were currently taking mental health medication (Figure 4).



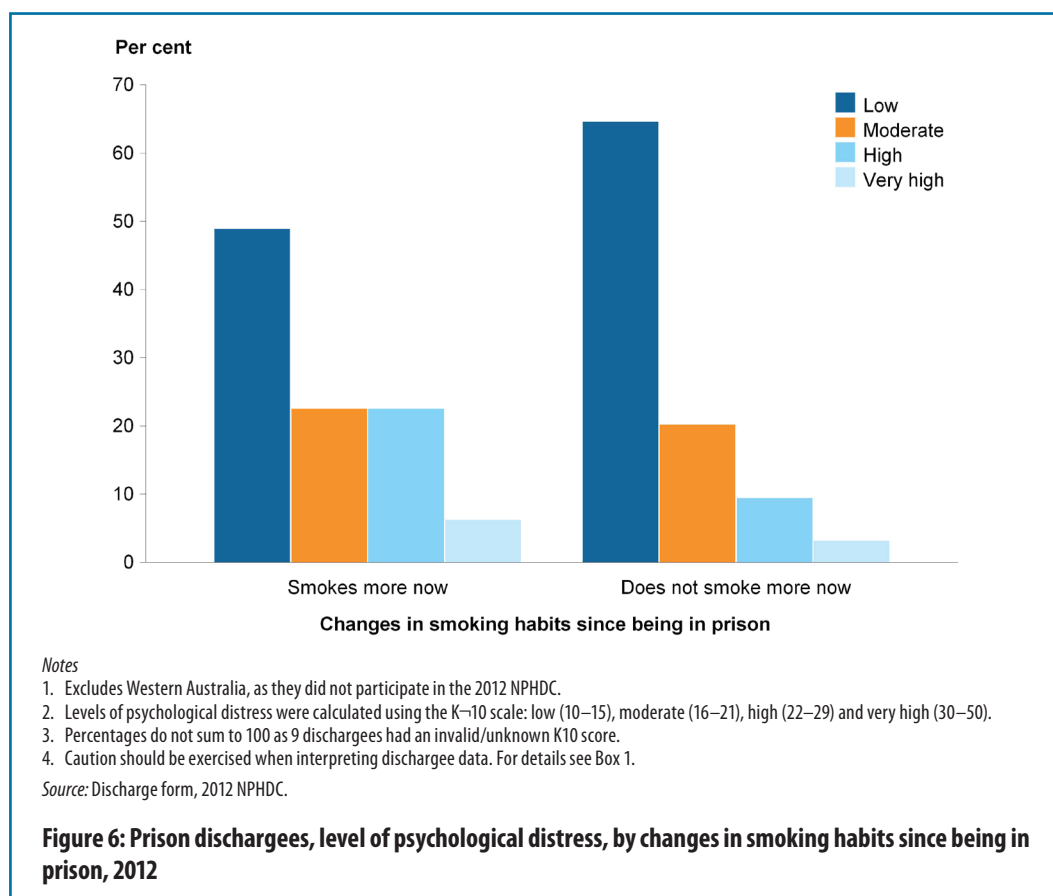


The NPHDC also collected information about the level of psychological distress experienced in the previous 30 days by people entering prison. About 3 in 5 entrants who had never smoked experienced only low levels of psychological distress (62%); as did just under half of current smokers (48%); as did just under half of current smokers (48%). Ex-smokers were the least likely to report low levels of distress (38%) (Figure 5).

Current and ex-smokers were more likely to report higher levels of distress than those who had never smoked. Very high levels of psychological distress were reported by similar proportions of current smokers and ex-smokers (16% and 18%, respectively, compared with 11% of those who had never smoked). Ex-smokers were also slightly more likely than current smokers to experience high distress (21% and 16%, respectively, compared with 10% of those who had never smoked).



Among prison discharges who smoked more since entering prison this time, 22% reported high distress and 6% reported very high distress, about twice the proportion of those who did not smoke more (9% and 3%, respectively). About 2 out of 3 (65%) discharges who did not smoke more while in prison reported only low distress, compared with 49% who did smoke more (Figure 6).



From the initial health assessment prisoners receive on entry to prison, they may be referred to various health professionals for further assessment, observation or treatment; including to mental health services. Prison entrants who were smokers were the most likely to be referred to mental health services on reception to prison (28%). Entrants who were ex-smokers were slightly less likely to be referred (26%) but entrants who had never smoked were substantially less likely to be referred (16%).

## What are some common characteristics of those who increased smoking while in prison?

More than half (55%) of discharges with high or very high levels of psychological distress reported smoking more since being in prison, compared with 33% of all discharges (Table 2). Those with lower levels of educational attainment (40%) were also disproportionately likely to report an increase in smoking since being in prison. Those who said their physical (37%) or mental health (36%) had changed for the worse since being in prison were slightly

more likely than others to report an increase in smoking. One-quarter (25%) of those reporting no recent contact with family or friends said they smoke more.

**Table 2: Prison dischargees, factors associated with changes in smoking habits, 2012 (per cent)**

	Smokes more since being in prison	Does not smoke more since being in prison
Highest level of completed schooling is less than Year 10	40	54
History of prior incarceration/youth detention	35	59
Mental health changed for the worse	36	48
Physical health changed for the worse	37	48
No recent contact with family/friends/elders	25	75
High or very high psychological distress	55	42
<b>All dischargees</b>	<b>33</b>	<b>58</b>

*Notes*

1. Excludes Western Australia, as they did not participate in the 2012 NPHDC.
2. Totals may not add to 100% due to 35 dischargees whose change in smoking was unknown.

Source: Discharge form, 2012 NPHDC.

The likelihood of prison dischargees reporting being a smoker declined with length of time in prison. Almost 9 out of 10 (87%) dischargees who had been in prison up to one month reported being a current smoker compared with 57% of those who had been in prison for more than 2 years. There were also associations with the amount of tobacco smoked—about one-third (33–35%) of dischargees who had been in prison for up to 2 years reported smoking more since they entered prison compared with about one-quarter (26%) of those who had been in prison more than 2 years. This indicates that at least some prisoners may be reducing their smoking over time.

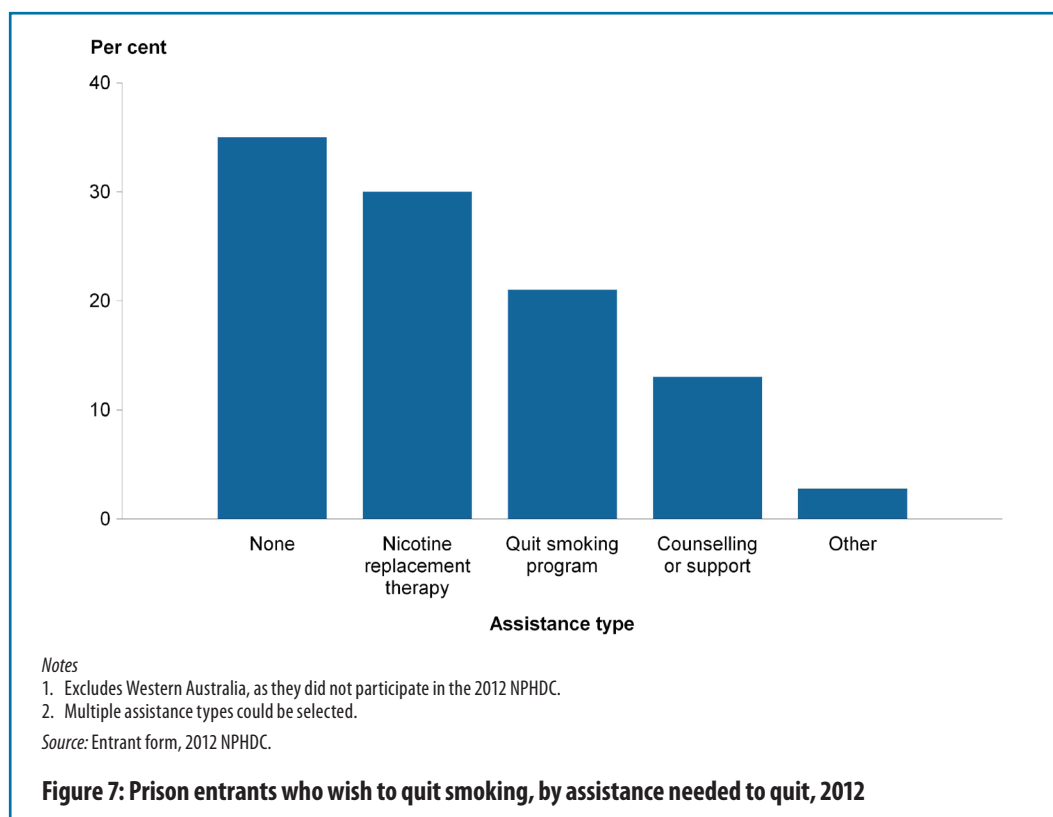
## Do prisoners want to quit smoking and are they successful?

### *Intentions to quit among prison entrants*

Almost half (46%) of prison entrants who were current smokers expressed a desire to quit smoking. More females than males wanted to quit (54% and 45%, respectively) but there were few differences by age or Indigenous status. Little is known about which methods work for prisoners wishing to quit smoking, and it is unlikely that a universal approach will work for everyone (Butler & Stevens 2011).

Prison entrants who were current smokers and wanted to quit were asked what kind of assistance they required. It was most common for entrants who smoked to report that they did not require any assistance (35%) followed by NRT (30%) and quit-smoking programs (21%) (Figure 7).

The low proportion nominating a need for counselling or support (13%) mirrored results from a New South Wales prison-based study. Even though the Quitline phone counselling service was made available to prisoners participating in research at one prison, few participants accessed the service. Rather, many participants expressed a desire for more than two sessions of cognitive behavioural therapy (CBT) (Richmond et al. 2013).



### Attempts to quit smoking among prison discharges

It has been found that freely available programs to assist smoking cessation are essential if smoking restrictions in prison are to help prisoners to completely quit smoking, as opposed to merely reducing smoking behaviours (Kauffman et al. 2011). However, in Australian prisons, barriers such as the length of a prisoner’s sentence may affect whether or not smoking cessation aides and programs are an option for prisoners, and their effectiveness.

While in prison, 8% of all prison discharges had successfully quit smoking, and a further 27% had attempted to quit but were unsuccessful. There were 54 discharges (14%) who accessed a smoking-cessation program in prison, however this was not related to a higher success rate in quit attempts. Almost 2 out of 5 (37%) discharges who successfully quit smoking accessed a cessation program, compared with 60% who did not access a program (Table 3).

**Table 3: Prison discharges, smoking cessation programs and success, 2012**

	Accessed a smoking cessation program		Did not access a program		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
Successfully quit	11	37	18	60	30	100
Unsuccessfully attempted to quit	38	36	67	64	105	100

**Notes**  
 1. Excludes Western Australia, as they did not participate in the 2012 NPHDC.  
 2. Total includes 1 prison dischargee whose program access was unknown.  
 Source: Discharge form, 2012 NPHDC.

## What restrictions on smoking within prisons are in place?

As indicated earlier, policies and practices that restrict or ban smoking in prison are complex, difficult to implement and can be controversial. Nevertheless, in recent years, jurisdictions across Australia have begun to trial or implement restrictions on smoking in prison. Previously, prisoners had been able to smoke in their cells, where they spend most of their time and where they are confined for several hours at a time. In 2012, every state and territory in Australia had smoking restrictions in place within prisons either indoors, outdoors or both (Table 4).

In some jurisdictions such as South Australia, restrictions on smoking indoors do not extend to cells as they are considered residential premises rather than public areas. In other jurisdictions such as Victoria, Western Australia and the Australian Capital Territory, the restrictions on smoking indoors include prisoners' cells. Details on the policies in place in each jurisdiction as at 2010 can be found in Butler & Stevens (2011).

In July 2013, the Northern Territory implemented a complete ban on smoking for prisoners, staff and visitors. The sale of tobacco was ceased one week before the ban and ongoing programs have been put in place to help prisoners quit. It is not yet clear what impact smoking bans will have on smoking rates among prisoners in the Northern Territory and other jurisdictions that have them or intend to implement or expand them. In the majority of prisons in Australia, smoking restrictions rather than smoking bans have been implemented. Because of this, the focus is rather on encouraging inmates to quit smoking.

**Table 4: Restrictions and bans on smoking in prisons, states and territories, 2013**

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT
Restricted indoor and outdoor	✓		✓		✓	✓		
Banned indoor		✓		✓			✓	
Total ban								✓

A review of operations at the Alexander Maconochie Centre in the Australian Capital Territory found that although smoking is prohibited in cells after lockdown, it was still regularly practised by prisoners and not always formally disciplined for a variety of reasons (Knowledge Consulting 2011). According to research conducted in the United States of America, prisoners continuing to smoke despite bans is relatively common (Cropsey & Kristeller 2005).

## Discussion and future directions

Smoking rates in prison are 5 times higher than in the general community, with prisons having a concentration of people who possess the demographic and socioeconomic characteristics of smokers. While 4 out of 5 (84%) prison entrants were smokers, almost half (46%) of them wanted to quit. Prison dischargee data suggest that the success rate for quitting smoking in prison is low, with only 8% successfully quitting. Quitting in prison may be more difficult than in the community because some factors which may hinder success, such as transferring prisons or sharing a cell with a smoker, are out of the control of prisoners. In addition to this, the prison environment can be highly stressful so smoking may be a means to cope; and smoking may be a symbol of the few rights that prisoners do not completely lose while incarcerated.

However, because prisoners are less likely to make use of health services and programs in the community, prison can provide a good opportunity to quit smoking through NRT, support services and/or programs. While some quit-smoking initiatives that exist in the general community in Australia—such as legislation that introduced plain packaging for cigarettes and other tobacco products—would naturally impact prisons, the range and availability of prison-specific initiatives in Australian prisons is unclear.

Although smoking in prisons has been completely banned in some countries, this has only recently been introduced in one jurisdiction in Australia. Rather, restrictions on smoking in Australian prisons are more common. One of the main influences on reduction in smoking in the general population over time has been turning the habit into something socially unacceptable. Restrictions or bans on smoking in prisons may have the same effect and slowly decrease smoking rates over time but the effects of this are yet to be seen. A number of issues would need to be considered if upgrading smoking restrictions to smoking bans was to be considered. Fundamentally, legislative amendments would be required to allow prisoners to be charged for possessing cigarettes (Office of Inspector of Custodial Services WA 2008).

Because the characteristics of smokers (such as being unemployed; having relatively low levels of education; and a history of mental health or substance-use disorders) were found to be very common among prisoners, efforts to decrease smoking rates 'will require innovation, dedication, appropriate resourcing, and a longer-term perspective' which acknowledge this (Butler & Stevens 2011). The National Tobacco Strategy 2012–18 supports the provision of greater smoking-cessation support for prisoners, such as access to NRT and other pharmacotherapies. Responsibility for this action lies with state and territory governments. Currently, prisoners do not qualify for subsidised NRT under the Australian Pharmaceutical Benefits Scheme.

The new dischargee data in the NPHDC, while being indicative, provide some useful insights into changes in the smoking behaviour of prisoners during their time in prison, and the willingness of prisoners to attempt to quit smoking. There is scope for further research in this area to establish stronger evidence, and investigate ways to maximise the opportunity presented in prison to reduce the negative health impacts associated with smoking among this population.



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## References

- Agrawal A, Madden PA, Martin NG & Lynskey MT 2013. Do early experiences with cannabis vary in cigarette smokers? *Drug and Alcohol Dependence* 128 (3):255-59.
- AIHW (Australian Institute of Health and Welfare) 2002. Australia's health 2002. Australia's health no. 8. Cat. no. AUS 25. Canberra: AIHW.
- AIHW 2008. Diabetes: Australian facts 2008. Cat. no. CVD 40. Canberra: AIHW.
- AIHW 2010. The health of Australia's prisoners 2009. Cat. no. PHE 123. Canberra: AIHW.
- AIHW 2011. 2010 National Drug Strategy Household Survey report. Drug statistics series no. 25. Cat. no. PHE 145. Canberra: AIHW.
- AIHW 2012. Australia's health 2012. Australia's health no. 13. Cat. no. AUS 156. Canberra: AIHW.
- AIHW 2013. The health of Australia's prisoners 2012. Cat. no. PHE 170. Canberra: AIHW.
- Baker A, Ivers RG, Bowman J, Butler T, Kay-Lambkin FJ, Wye P et al. 2006. Where there's smoke, there's fire: high prevalence of smoking among some sub-populations and recommendations for intervention. *Drug and Alcohol Review* 25(1):85-96.
- Belcher JM, Butler T, Richmond RL, Wodak AD & Wilhelm K 2006. Smoking and its correlates in an Australian prisoner population. *Drug and alcohol review* 25(4):343-48.
- Butler T, Richmond R, Belcher J, Wilhelm K & Wodak A 2007. Should smoking be banned in prisons? *Tobacco Control* 16(5):291-93.

- Butler T and Stevens C 2011. National summit on tobacco smoking in prisons: report on the summit. National Drug Research Institute, Curtin University: Perth, Western Australia.
- Carter S, Borland R & Chapman C 2001. Finding the strength to kill your best friend—smokers talk about smoking and quitting. Sydney: Australian Smoking Cessation Consortium and GlaxoSmithKline Consumer Healthcare, 2001.
- Clarke JG, Martin RA, Stein LAR, Lopes CE, Mello J, Friedmann P & Bock B 2011. Working inside for smoking elimination (Project W.I.S.E) study design and rationale to prevent return to smoking after release from a smoke free prison. *BioMed Central Public Health* 11:767–773.
- Collinson L, Wilson N, Edwards R, Thomson G & Thornley S 2012. New Zealand's smokefree prison policy appears to be working well: one year on. *New Zealand Medical Journal* 125 (1357):164–168.
- Cropsey KL & Kristeller JL 2005. The effects of a prison smoking ban on smoking behaviour and withdrawal symptoms. *Addictive Behaviours* 30(3):589–94.
- Cropsey K, Eldridge G, Weaver M, Villalobos G, Stitzer M & Best A 2008. Smoking cessation intervention for female prisoners: addressing an urgent public health need. *American Journal of Public Health* 98(10):1894–1901.
- Hackshaw L, McEwan A, West R & Bauld L 2010. Quit attempts in response to smoke-free legislation in England. *Tobacco Control* 19:160–164.
- Huber GL & Mahajan VK 2008. Successful smoking cessation. *Disease Management and Health Outcomes* 16(5):335–343.
- Hughes JR & Kalman D 2006. Do smokers with alcohol problems have more difficulty quitting? *Drug and Alcohol Dependence* 82(2):91–102.
- Kaletka D, Korytkowski P, Makowiec-Dabrowska T, Usidame B, Bak-Romaniszyn L & Fronczak A 2012. Predictors of long-term smoking cessation: results from the global adult tobacco survey in Poland (2009–2010). *BMC Public Health* 12:1020.
- Kauffman RM, Ferketich AK, Murray DM, Bellair PE & Wewers ME 2011. Tobacco use by male prisoners under an indoor smoking ban. *Nicotine and Tobacco Research* 13(6):449–56.
- Kerr S, Woods C, Knussen C, Watson H & Hunter R 2013. Breaking the habit: a qualitative exploration of barriers and facilitators to smoking cessation in people with enduring mental health problems. *BMC Public Health* 13:221.
- Knowledge Consulting 2011. Independent review of operations at the Alexander Maconochie centre: ACT Corrective Services. Knowledge Consulting Pty Ltd, Project No: 12941.
- Lasnier B, Cantinotti M, Guyon L, Royer A, Brochu S & Chayer L 2011. Implementing an indoor smoking ban in prison: enforcement issues and effects on tobacco use, exposure to second-hand smoke and health of inmates. *Canadian Journal of Public Health* 102(4):249–53.
- Lawrence D, Considine J, Mitrou F & Zubrick SR 2010. Anxiety disorders and cigarette smoking: results from the Australian survey of mental health and wellbeing. *Australian and New Zealand Journal of Psychiatry* 44(6):520–27.
- Lawrence D, Hafekost J, Hull P, Mitrou F & Zubrick SR 2013. Smoking, mental illness and socioeconomic disadvantage: analysis of the Australian National Survey of Mental Health and Wellbeing. *BMC Public Health* 13:462.
- Lee C & Kahende J 2007. Factors associated with successful smoking cessation in the United States, 2000. *American Journal of Public Health* 97(8):1503–09.

- Lincoln T, Tuthill R W, Roberts C A, Kenedy S, Hammett T M, Langmore-Avila E et al 2009. Resumption of smoking after release from a tobacco-free correctional facility. *Journal of Correctional Health Care* 15(3):190–96.
- Makris E, Gourgoulisanis KI & Hatzoglou C 2012. Prisoners and cigarettes or ‘imprisoned in cigarettes’? What helps prisoners quit smoking? *BMC Public Health* 12:508.
- McCaffrey M, Goodman P, Gavigan A, Kenny C, Hogg C, Byrne L et al 2012. Should any workplace be exempt from smoke-free law: the Irish experience. *Journal of Environmental and Public Health* 2012: Article 545483.
- NSW Government 2007. Factsheet: Nicotine dependence and withdrawal. Viewed 30 May 2013, <http://www0.health.nsw.gov.au/factsheets/general/nicotinedependence.html>.
- O’Dowd A 2005. Smoking ban in prisons would lead to more assaults on staff. *British Medical Journal* 331:1228.5.
- Office of the Inspector of Custodial Services 2008. Smoking in prison. Issues paper #1. Perth, Western Australia: Office of the Inspector of Custodial Services.
- Richmond RL, Butler T, Belcher JM, Wodak A, Wilhelm KA & Baxter E 2006. Promoting smoking cessation among prisoners: feasibility of a multi-component intervention. *Australian and New Zealand Journal of Public Health* 30(5):474–78.
- Richmond R, Butler T, Wilhelm K, Wodak A, Cunningham M & Anderson I 2009. Tobacco in prisons: a focus group study. *Tobacco Control* 18:176–82.
- Richmond R, Indig D, Butler T, Wilhelm K, Archer V & Wodak A 2012. A randomized controlled trial of a smoking cessation intervention conducted among prisoners. *Addiction* 108:966–74.
- Ritter C, Stöver H, Levy M, Etter JF & Elger, B 2011. Smoking in prisons: the need for effective and acceptable interventions. *Journal of Public Health Policy* 32(1):32-45.
- Scollo MM & Winstanley MH (eds) 2008. *Tobacco in Australia: facts and issues*. 3rd edn. Melbourne: Cancer Council Victoria.
- Thibodeau L, Seal DW, Jorenby DE, Corcoran K & Sosman JM 2012. Perceptions and influences of a state prison smoking ban. *Journal of Correctional Health Care* 18(4): 293–301.
- Thornley S, Dirks KN, Edwards R, Woodward A & Marshall R 2013. Indoor air pollution levels were halved as a result of a national tobacco ban in a New Zealand prison. *Nicotine and Tobacco Research* 15(2):343–47.
- Weinberger AH, Desai RA & McKee SA 2010. Nicotine withdrawal in U.S. smokers with current mood, anxiety, alcohol use and substance use disorders. *Drug and Alcohol Dependence* 108(1–2):7–12.

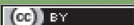
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