

# Her Majesty's Cayman Islands Prison Services Nicotine Dependence Survey Report

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2021

*Her Majesty's Cayman Islands Prison Services (HMCIPS) Nicotine Dependence Survey  
Report 2021*

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## Key Findings

1. More than six in ten (69.2%) respondents were smokers while 30.8% were non-smokers. Of those who smoked 85.1% were convicted and 14.9% were on remand.
2. Most of the smokers (64.6%) said they smoked 10 cigarettes or less per day, with 23% smoking between 11 and 20 per day, and 12.2% smoking greater than 20 cigarettes per day.
3. Overall, one in eight smokers (12.2%) were assessed as not having a nicotine dependence.
4. Of those who smoked, 13.5% were assessed as having low dependence, 36.5% as having low to moderate dependence, 29.7% as having moderate to high dependence, and 8.1% as having high risk of dependence.
5. The analysis shows that 37.8% (28/74) of inmates who smoke are assessed as having moderate to high risk of nicotine dependence and could benefit from smoking cessation interventions.
6. Of the 28 inmates who were assessed as having moderate to high/high risk of dependence, 86% (24/28) were convicted inmates while 14% (4/28) were on remand.
7. Of the 28 inmates assessed as having moderate to high/high risk of dependence, 71.4% (20/28) of were under 40 years of age, with four respondents (14.3%) in the 40-49 years age grouping and the remaining four respondents (14.3%) being 50 years or older.
8. A significantly high proportion of inmates (88.7%) reported that 'prison stress' was a factor enhancing the need for tobacco usage.
9. Among current smokers, 79% (56/71) indicated that they had tried to quit smoking. Of these, 76.7% were convicted inmates compared to 90.9% who were on remand.

10. In terms of dependence, 23 of the 28 (82%) inmates who were assessed as having moderate to high/high risk of dependence reported that they had tried to quit smoking.
11. The main reasons given for attempting to quit smoking included: (1) the will to be in control (81%); (2) anxiety about health (77.6%); (3) the fight against their own weakness (72.4%); and (4) the will to save money (55.2%).
12. The two most prevalent reasons given for relapsing when trying to quit tobacco use included: (1) a depressed mood (67.8%; and (2) boredom (62.7%).
13. Only 30% (18/59) of those who smoke said "I am planning to quit within the next month". Only 19 inmates responded to the statement "I am not interested in quitting", but interestingly, of those who did, almost half (9/19 or 47.4%) answered "yes" to not being interested in quitting.
14. When assessed alongside risk for dependence, 44% of those who were planning to quit within the next month were at a moderate to high risk of dependence, as were 33.3% of those who were thinking about quitting within the next 12 months. This was followed by 50% of respondents who said they "will quit someday but not within the next 12 months" and were assessed as having a high risk of dependence.
15. The highest proportion with a risk for dependence was among those who were not at all interested in quitting smoking which accounted for 55.6% of respondents.
16. When asked about nicotine replacement therapy, 48% (37/77) of respondents indicated that they would use a nicotine patch to help quit smoking; 43% said they would switch to smokeless tobacco as a means of quitting; and 57% were in favour of using nicotine chewing gum.

17. Overall, at least 59 or 76.6% of smokers indicated that they would use some form of nicotine replacement therapy (48% nicotine patch, 43% smokeless tobacco, and 57% nicotine chewing gum).

## **Background and Introduction**

Smoking tobacco contributes to 11.5% of deaths worldwide, and in some countries, accounts for more hospitalizations than alcohol and other drugs combined. On a global scale, incarcerated populations remain one of the greatest at-risk groups for health consequences relating to smoking. According to the literature, the most widely used psychoactive substance amongst prisoners is tobacco, with prevalence rates ranging from 64% to over 90% depending on the country and setting. The prevalence rate of those who smoke within prisons is also often found to be much higher than the prevalence rate of those who smoke within the general population, placing prison populations at a disproportionately higher risk of smoking-related illness and mortality<sup>1</sup>.

The probability of being exposed to second-hand smoke is also much higher within prison facilities. This is not only the result of high smoking prevalence, but also because of factors surrounding poor ventilation and being predominately confined to indoor spaces. There is therefore cause for concern not only in relation to the health of those who smoke, but also for those who are forcibly exposed to second-hand smoke within the prison environment. As a result, both inmates and staff need effective interventions to reduce the subsequent health risks resulting from prison tobacco use.

## **The significance of tobacco use in prison**

Prisons have entrenched cultures that shape the ways in which social relations are conducted, including the consumption of tobacco where smoking remains an established and integral part of prison culture and other criminal justice settings. As a result, prison facilities have the potential to directly alter patterns of tobacco consumption in both positive and negative ways. According to qualitative research conducted in UK prisons, prisoners often seek to achieve something during their period of incarceration, and smoking cessation is often viewed as a means to achieve this goal<sup>2</sup>. In addition to the lack of access

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<sup>1</sup> Zhang, J (2018).

<sup>2</sup> Mar 16, 2018 · MacAskill, S., & Hayton, P. (2006). Stop smoking support in HM Prisons: The impact of nicotine replacement therapy. <https://www.cambridge.org/core/journals/journal-of-smoking-cessation>.

to tobacco, prisoners have described incarceration as an opportunity to access smoking cessation services such as nicotine replacement therapy. However, imprisonment has also been shown to exacerbate variables that can lead to an increase in smoking behaviours. This includes factors such as boredom, coping with stress, missing friends and family, and a lack of family support which prisoners often describe in relation to their urges to smoke. Smoking has also been identified as a way of helping to manage stressful situations such as prison transfers, court appearances and prison visits. Similarly, experiences of boredom, prolonged periods locked in cells, bullying, and stress have also served as reasons for relapse by those who have attempted to stop smoking while incarcerated. This suggests that in addition to smoking cessation initiatives, prisons should also improve access to resources such as gym facilities or sporting activities, in order to mitigate the aforementioned risk factors.

Interventions for smoking cessation within prisons are also sometimes met with resistance and negative attitudes because of a belief that smoking cessation, especially when enforced through smoking restrictions, would place an intolerable burden of stress on prisoners at an already stressful time. However, the significant health risks caused by tobacco use in prison must also be taken into consideration, especially with regards to the health challenges surrounding second-hand smoke. Second-hand smoke is known to have various health-damaging effects, including an increased risk of heart disease and lung cancer in non-smokers. Other than smoking bans, very few measures have been taken within prisons to mitigate any consequent health risks, which demonstrates a low priority attached to smoking and health promotion efforts within prisons. This low effort continues to persist despite the World Health Organizations Framework Convention on Tobacco Control (WHO FCTC) declaring that all people, with an explicit mention of prisoners and prison staff, need to be protected from exposure to environmental tobacco smoke.

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Breaking Free from Smoking: A Novel Digital Smoking Cessation Intervention for Offenders in UK Prisons. Published online by Cambridge University Press: 16 March 2018

## Demographics

**Table 1: Nicotine Dependence Survey – Demographic Variables**

	Freq (%)
Total number of offenders surveyed (N)	107
Remanded	17 (15.9)
Convicted	90 (84.1)
Male	107 (100.0)
Female	-
Age grouping (overall)	
20-29	32 (29.9)
30-39	27 (25.2)
40-49	34 (31.8)
50 plus	14 (13.1)
Smokers	74 (69.2)
Non-smokers	33 (30.8)

Of the available prison population, interviews were conducted among 107 inmates (53.4%) (See table 1). Of these respondents, 84% (90/107) were convicted and 16% (17/107) were remanded. All survey respondents were males, with the majority (31.8%) contributing to the 40-49 years age grouping. This was followed by 30% of respondents in the 20-29 years age grouping, a quarter (25.2%) in the 30-39 years grouping and 13% being 50 years or older. More than six in ten (69.2%) respondents were smokers while 30.8% were non-smokers. Of those who smoke, 85.1% were convicted in comparison to 14.9% who were on remand (See table 2). There was no statistically significant difference between smokers and non-smokers with respect to their prison status.

**Table 2: Age and Prison Status for Smokers vs Non-smokers**

	Smokers	Non-smokers
Age grouping (smokers vs. non-smokers)		
20-29	29 (39.2)	3 (9.1)
30-39	19 (25.7)	8 (24.2)
40-49	20 (27.0)	14 (42.4)
50 plus	6 (8.1)	8 (24.2)
Total	74 (69.2)	33 (30.8)
Prison status		
Convicted	63 (85.1)	27 (81.8)
Remanded	11 (14.9)	6 (18.2)
Total	74	33

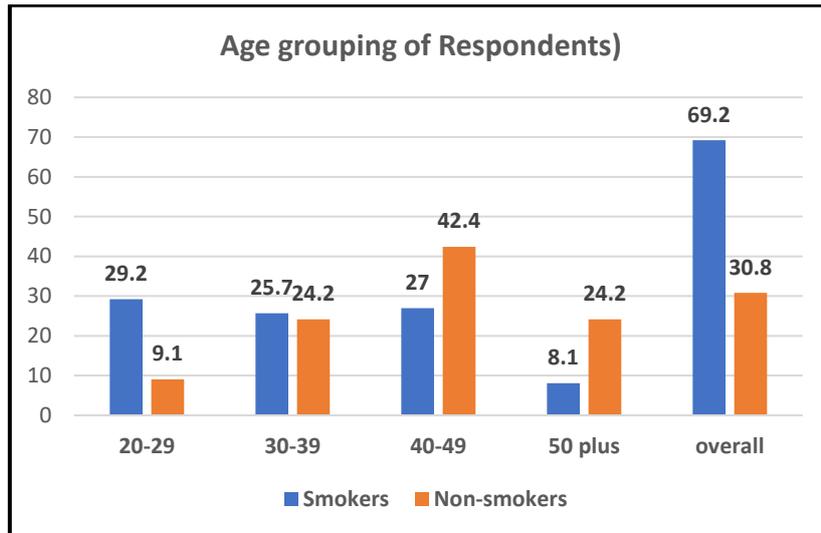


Figure 1: Age Grouping of Inmates (smokers vs. non-smokers)

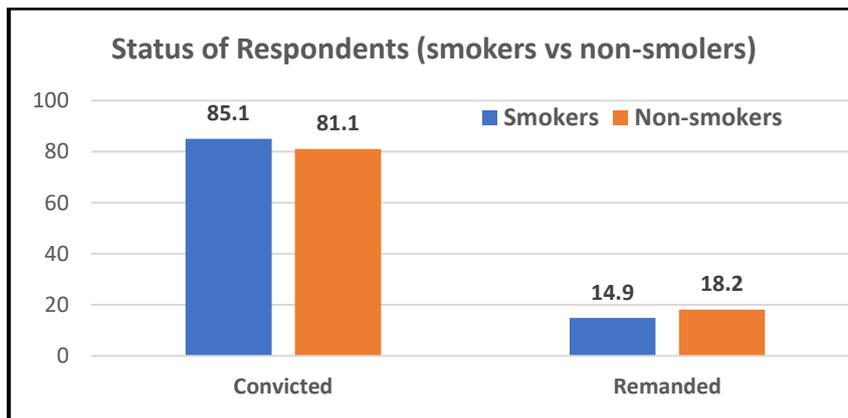


Figure 2: Status of Inmates (smokers vs. non-smokers)

### Fagerstrom Test for Nicotine Dependence

The Fagerstrom Test for Nicotine Dependence consists of six questions, which can be seen in table 3 and figure 3 below, in addition to inmate responses. Responses were scored to determine where respondents fall on the nicotine dependence scale as shown in table 4 below.

Respondents who smoke were asked the question “how soon after you wake up do you smoke your first cigarette?”. About a third of respondents (32.4%) said within the first 5 minutes, 32.4% said within 6 to 30 minutes, 14.9% said within 31 to 60 minutes, and about a fifth (20.3%) said after 60 minutes.

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About three in ten (29.7%) said it was difficult to refrain from smoking while 70.3% said it was not. When asked the question “which cigarette would you hate most to give up?”, six in ten respondents (62.2%) reported the first one in the morning, while 37.8% said ‘any other’. In regard to daily consumption, most respondents (64.6%) said they smoked 10 cigarettes or less per day, with 23% reporting between 11 and 20 cigarettes per day, and 12.2% smoking greater than 20 cigarettes per day.

Respondents were also asked “Do you smoke more frequently during the first hours after waking than during the rest of the day?”. Four in ten respondents (40.5%) said yes, while 59.5% said no. To complete the test, they were asked “Do you smoke when you are so ill that you are in bed most of the day?” and about a fifth (21.6%) of respondents said yes while the majority (78.4%) reported no.

**Table 3: Responses to Fagerstrom Test for Nicotine Dependence**

	Freq (%)
<b>How soon after you wake up do you smoke your first cigarette</b>	
Within 5 minutes	24 (32.4)
6 to 30 minutes	24 (32.4)
31 to 60 minutes	11 (14.9)
After 60 minutes	15 (20.3)
<b>Difficult to refrain from smoking</b>	
Yes	22 (29.7)
No	52 (70.3)
<b>Which cigarette would you hate most to give up?</b>	
The first one in the morning	46 (62.2)
Any other	28 (37.8)
<b>How many cigarettes per day do you smoke?</b>	
10 or less	48 (64.9)
11 to 20	17 (23.0)
21 to 30	5 (6.8)
31 or more	4 (5.4)
<b>Do you smoke more frequently during the first hours after waking than during the rest of the day?</b>	
Yes	30 (40.5)
No	44 (59.5)
<b>Do you smoke when you are so ill that you are in bed most of the day?</b>	
Yes	16 (21.6)
No	58 (78.4)

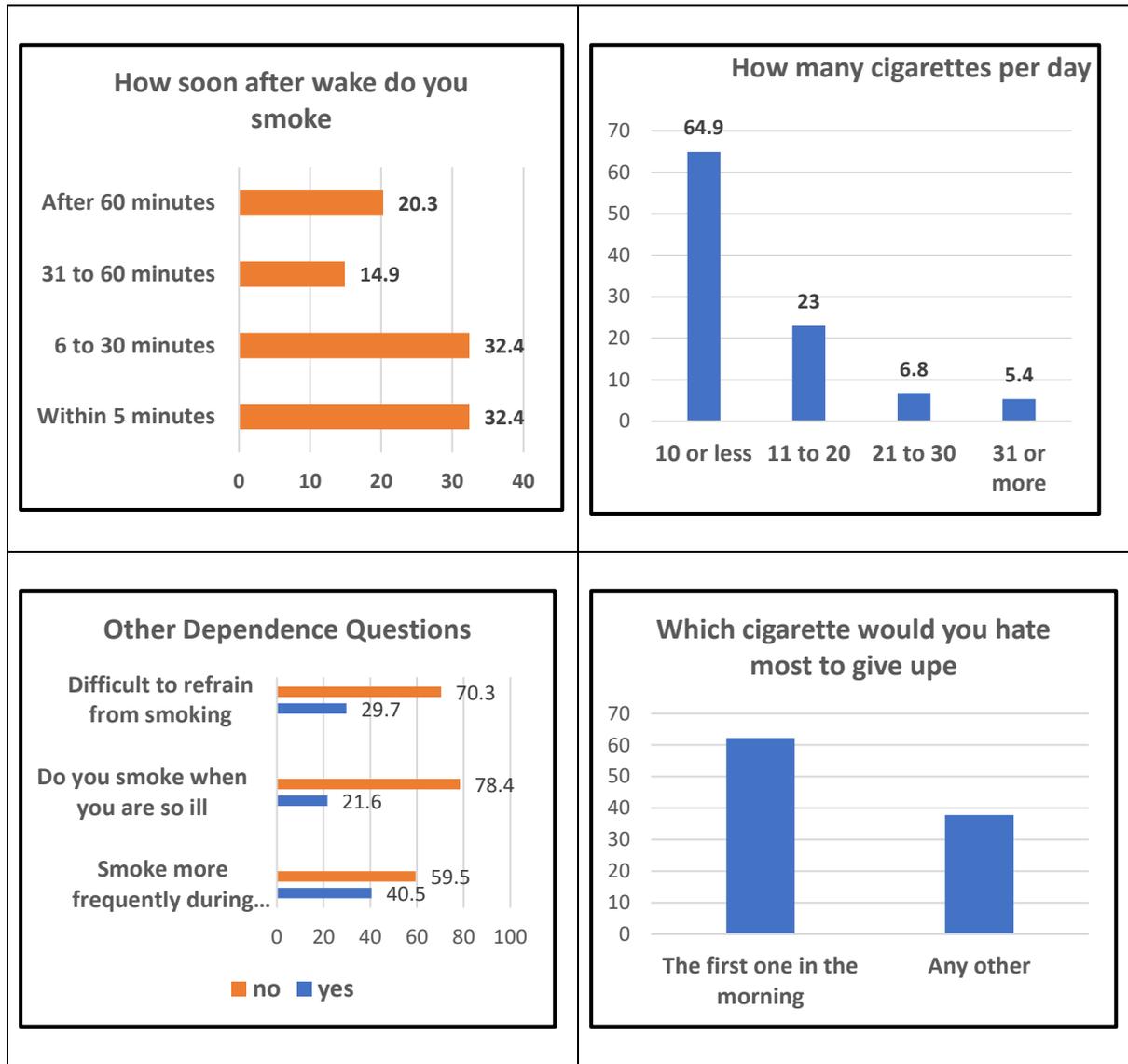


Figure 3: Responses to Fagerstrom Test for Nicotine Dependence

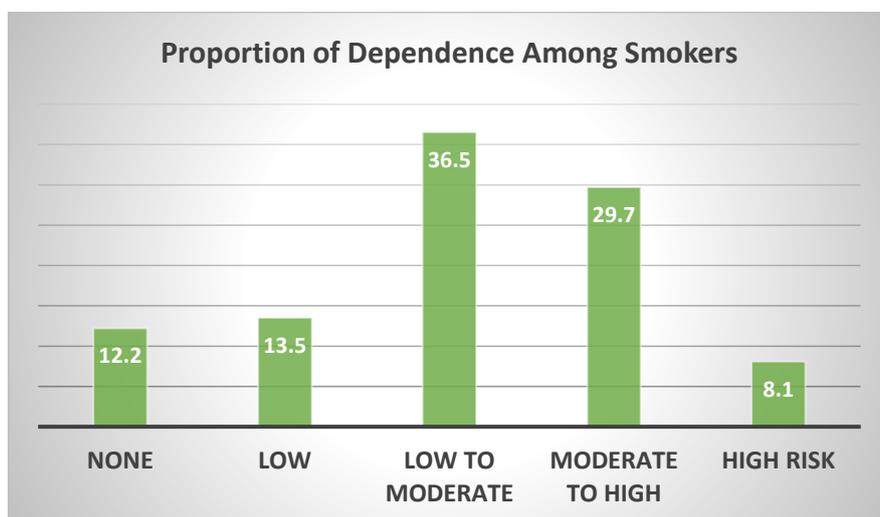
### Dependence Scale

The dependence score attained from the six questions were computed into a dependence scale to reflect an indication of: (1) no dependence; (2) low dependence; (3) low to moderate dependence; (4) moderate to high dependence; and (5) high risk of dependence. As demonstrated in table 4 below, one in eight smokers overall (12.2%) were assessed as not having a nicotine dependence. Some 13.5% were assessed as having low dependence, 36.5% as low to moderate dependence, 29.7% as moderate to high dependence, and 8.1% as having a high risk of nicotine dependence. This analysis shows that 37.8% of inmates

who are assessed as having moderate to high risk of nicotine dependence, could benefit from smoking cessation interventions.

**Table 4: Dependence Among Smoking Inmates**

	Freq (%)		
	Overall	Convicted	Remanded
None	9 (12.2)	6 (9.5)	3 (27.3)
Low	10 (13.5)	10 (15.9)	-
Low to moderate	27 (36.5)	23 (36.5)	4 (36.4)
Moderate to high	22 (29.7)	19 (30.2)	3 (27.3)
High risk	6 (8.1)	5 (7.9)	1 (9.1)
Total	74	63	11



**Figure 4: Proportion of Dependence Among Smoking Inmates**

**Dependence Among Convicted and Remanded**

Of the 28 inmates assessed at moderate to high or high risk of dependence, 86% (24/28) were convicted inmates while 14% (4/28) were remanded inmates (See table 5). Some 71.4% (20/28) of these inmates were under 40 years of age with four (14.3%) in the 40-49 years age grouping and the remaining four (14.3%) contributing to the 50 years or older age grouping.

**Table 5: Dependence and Age Grouping**

	Age group categories				Total
	20-29	30-39	40-49	50 plus	
None	1	4	3	1	9
Low	4	4	1	1	10
low to moderate	11	4	12	0	27
Moderate to high	10	6	3	3	22
high risk	3	1	1	1	6
Total	29	19	20	6	74

### **Factors Promoting Tobacco Usage in Prison and at Liberty**

Respondents were asked to indicate factors that promote tobacco use in prison and at liberty (See table 6). About three in ten (29.5%) respondents said they “use less tobacco daily during incarceration than at liberty”, while 82% said they “use more tobacco daily during incarceration than at liberty”, and almost a third (32.1%) said they “use the same amount of tobacco daily). A significantly high proportion of inmates (88.7%) reported that ‘prison stress’ was a factor enhancing the need for tobacco usage. Three inmates (4.2%) said they did not know and 7% said this was not a factor enhancing use.

**Table 6: Factors Promoting Tobacco Usage in Prison and at Liberty**

	Yes	No
<b>Change in tobacco use habits in prison</b>		
I use less tobacco daily during incarceration than at liberty	18 (29.5)	43 (70.5)
I use more tobacco daily during incarceration than at liberty	60 (82.2)	13 (17.8)
I use the same amount of tobacco daily	18 (32.1)	38 (67.9)
<b>Is prison stress a factor enhancing the need for tobacco usage</b>	63 (88.7)	5 (7.0)

### **Factors Enhancing Need for Tobacco While Imprisoned**

Respondents were asked about the factors enhancing the need for tobacco while imprisoned (See table 7).

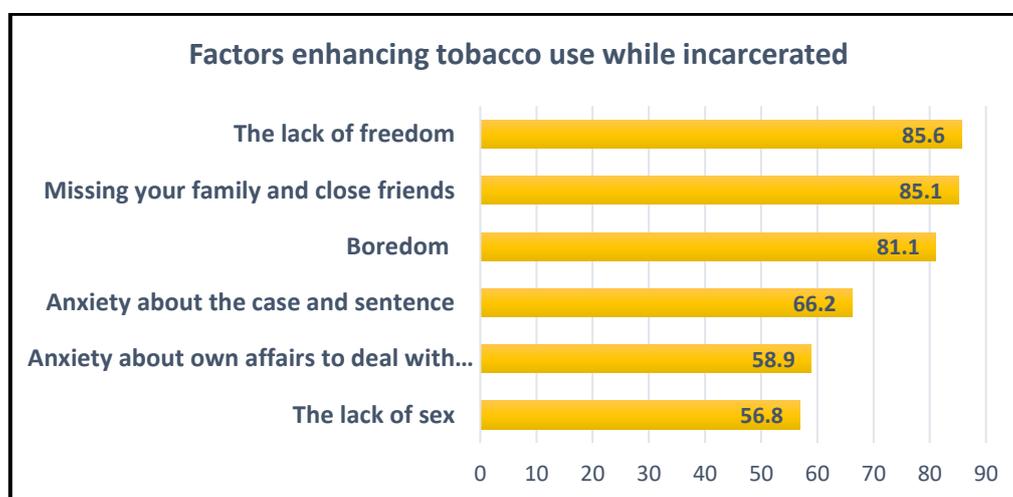
**Table 7: Factors Enhancing Need for Tobacco While Imprisoned**

Factors enhancing need for tobacco while imprisoned	Yes	No
The lack of freedom	64 (86.5)	10 (13.5)
Anxiety about the case and sentence	49 (66.2)	25 (33.8)
Fear about the crime committed	25 (33.8)	49 (66.2)
Bad relations with the prison staff	20 (27.0)	54 (73.0)
Bad relations with other prisoners	17 (23.0)	57 (77.0)
Missing your family and close friends	63 (85.1)	11 (14.9)
Anxiety about your own affairs to deal with at liberty	43 (58.9)	30 (41.1)
The lack of alcohol	11 (15.1)	62 (84.9)
The lack of narcotics/marijuana, etc	45 (42.1)	29 (39.2)
The lack of sex	42 (56.8)	32 (43.2)
Boredom	60 (81.1)	14 (18.9)
Any other reasons	15 (20.5)	58 (79.5)

The six most prevalent factors enhancing tobacco use while incarcerated, as indicated by 50% of inmates or more included (See figure 5):

- The lack of freedom (86.5%)
- Missing your family and close friends (85.1%)
- Boredom (81.1%)
- Anxiety about the case and sentence (66.2%)
- Anxiety about your own affairs to deal with at liberty (58.9%)
- The lack of sex (56.8%)

Responses that were less prevalent included: (1) the lack of narcotics/marijuana; (2) the lack of alcohol use; (3) bad relations with prison staff; (4) bad relations with other prisoners; and (5) fear about the crime committed.



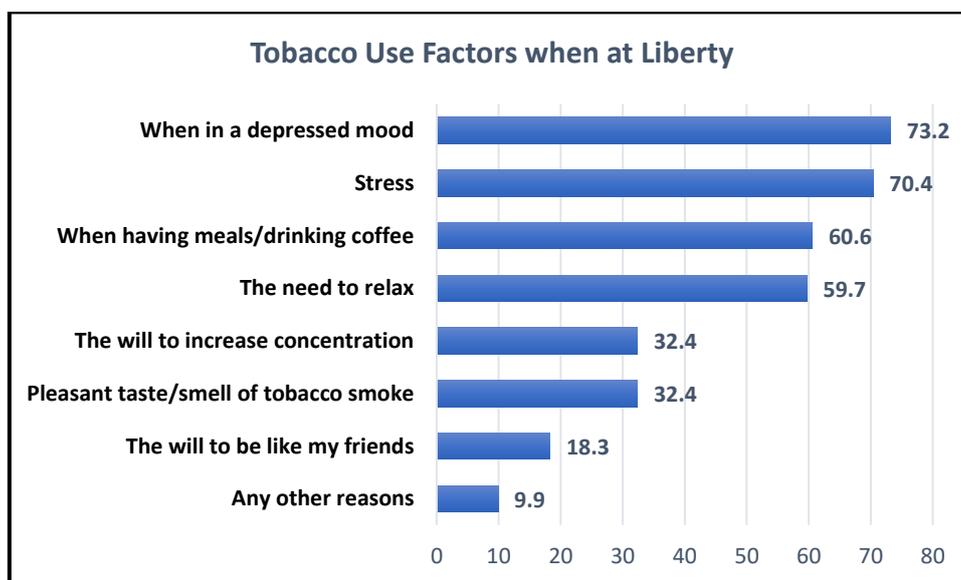
**Figure 5: Factors Enhancing Tobacco Use While Incarcerated**

### Factors That Trigger Tobacco Usage at Liberty

Inmates were also asked what factors trigger tobacco usage at liberty (See table 8 and figure 6). The four most prevalent responses indicated were: (1) when in a depressed mood (73.2%); (2) stress (70.4%); (3) when having meals or drinking coffee (60.6%); and (4) the need to relax (59.7%). Less than a third of inmates believed that the will to increase concentration (32.4%) or the pleasant taste and smell of tobacco smoke (32.4%) provided triggers for tobacco use when at liberty.

**Table 8: Factors That Trigger Tobacco Usage at Liberty**

<b>Factors that trigger tobacco usage at liberty</b>	<b>Yes</b>	<b>No</b>
A pleasant taste and smell of tobacco smoke	23 (32.4)	48 (67.6)
Stress	50 (70.4)	21 (29.6)
The will to increase concentration	23 (32.4)	48 (67.6)
The need to relax	43 (59.7)	29 (40.3)
When having meals or drinking coffee	43 (60.6)	28 (39.4)
When in a depressed mood	52 (73.2)	19 (26.8)
The will to be like my friends	13 (18.3)	58 (81.7)
Any other reasons	7 (9.9)	64 (90.1)



**Figure 6: Factors That Trigger Tobacco Usage at Liberty**

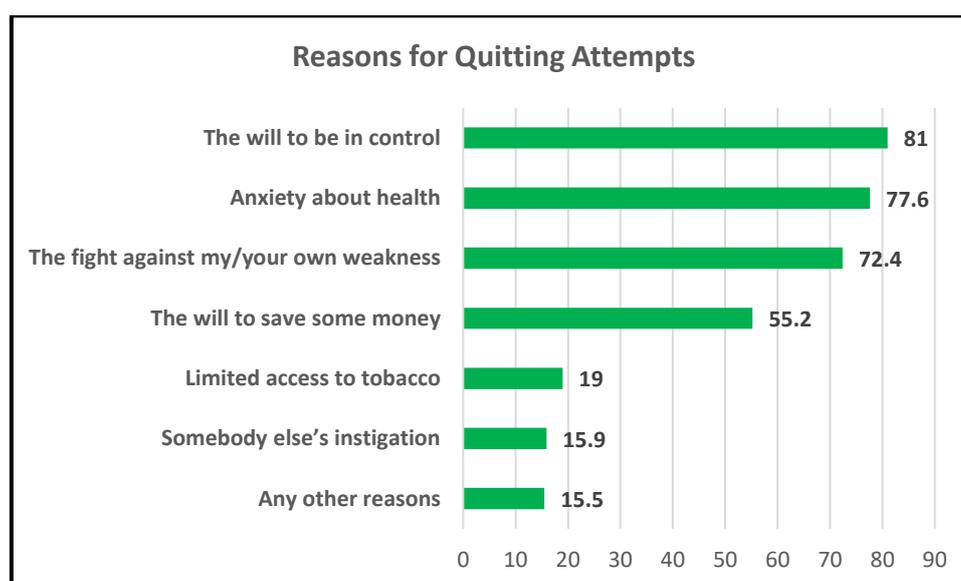
## Factors Responsible for Tobacco Cessation

**Table 9: Factors Responsible for Tobacco Cessation**

	Yes	No
<b>Have you ever attempted to quit tobacco use</b>	56 (78.9)	15 (21.1)
<b>Reasons for quitting attempts</b>		
Limited access to tobacco	11 (19.0)	47 (81.0)
The will to save some money	32 (55.2)	26 (44.8)
Anxiety about health	45 (77.6)	13 (22.4)
The fight against my/your own weakness	42 (72.4)	16 (27.6)
Somebody else's instigation	17 (15.9)	40 (70.2)
The will to be in control	47 (81.0)	11 (19.0)
Any other reasons	9 (15.5)	49 (84.5)

From table 9 above, 79% (56/71) of current smokers indicated that they have attempted to quit smoking, with 76.7% of these being having been convicted in comparison to 90.9% being remanded. In terms of dependence, 82% (23 of 28) of inmates who were assessed as having moderate to high/high risk of dependence reported that they had tried to quit smoking.

The main reasons that were given for attempts to quit smoking included: (1) the will to be in control (81%); (2) anxiety about health (77.6%); (3) the fight against their own weakness (72.4%); and (4) the will to save some money (55.2%) (See figure 7).



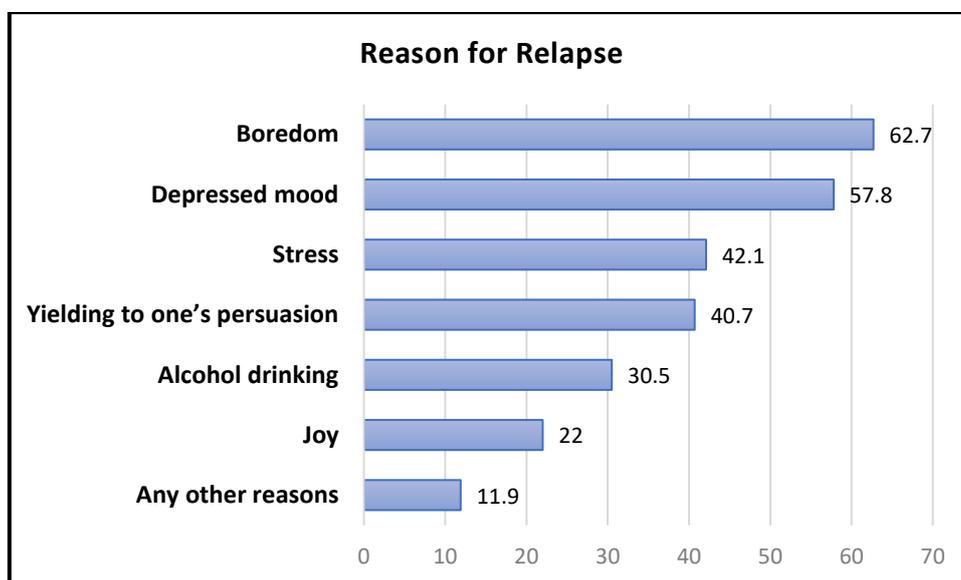
**Figure 7: Reasons for Quitting Attempts**

### Relapse in Quitting Tobacco Use

Inmates were asked their perception of reasons for relapse in quitting tobacco use. A depressed mood (67.8%) and boredom (62.7%) were given as the two most prevalent reasons for relapse in quitting tobacco use. However, more than four in ten of these inmates believe that stress (42.1%) and yielding to one's persuasion (40.7%) were also important reasons for relapse as evident in table 10 and figure 8 below.

**Table 10: Reasons for Relapse in Quitting Tobacco**

Reasons for relapse in quitting tobacco	Yes	No
Alcohol drinking	18 (30.5)	41 (69.5)
Stress	45 (42.1)	14 (13.1)
Yielding to one's persuasion	24 (40.7)	35 (59.3)
Depressed mood	40 (67.8)	19 (32.2)
Joy	13 (22.0)	46 (78.0)
Boredom	37 (62.7)	22 (37.3)
Any other reasons	7 (11.9)	52 (88.1)



**Figure 8: Reasons for Relapse in Quitting Tobacco Use**

### Inmates' Thoughts About Quitting Smoking

Inmates were asked to indicate which of the statements in table 11 best described their thoughts about quitting smoking --68.2% (30/44) of respondents replied yes to the

statement “I am thinking about quitting within the next 12 months”. A slightly lower proportion (57.1% or 12/21) said “I will quit someday but not within the next 12 months”. Only 30% (18/59) said “I am planning to quit within the next month”. Not many inmates responded to the statement “I am not interested in quitting”, but interestingly, almost half of those who did respond (9/19 or 47.4%) said “I am not interested in quitting”.

**Table 11: Inmate’s Thinking About Quitting Smoking - Overall Responses**

<b>Inmate’s thinking about quitting smoking</b>	<b>Yes</b>	<b>No</b>
I am planning to quit within the next month	18 (30.0)	41 (70.0)
I am thinking about quitting within the next 12 months	30 (68.2)	14 (31.8)
I will quit someday but not within the next 12 months	12 (57.1)	9 (42.9)
I am not interested in quitting	9 (47.4)	10 (52.6)

### **Inmate’s Thinking About Quitting Smoking and Risk for Dependence**

Inmates who responded “yes” to the statement “I am thinking about quitting within the next 12 months” were cross tabulated with the moderate to high/high risk for dependence (See table 12).

The cross-tabulation showed that 44% of those who were planning to quit within the next month were at a moderate to high risk of dependence, as were 33.3% of those who were thinking about quitting within the next 12 months. The highest proportion of those at risk for dependence included 55.6% of respondents who said they were “not interested in quitting” followed by 50% of respondents who said they “will quit someday but not within the next 12 months”.

**Table 12: Inmate’s Thinking About Quitting Smoking and Risk for Dependence**

<b>Inmate’s thinking about quitting smoking</b>	<b>N</b>	<b>Moderate to high /high risk for dependence</b>
I am planning to quit within the next month	18	8 (44.4)
I am thinking about quitting within the next 12 months	30	10 (33.3)
I will quit someday but not within the next 12 months	12	6 (50.0)
I am not interested in quitting	9	5 (55.6)

### **Nicotine Replacement Therapy**

From table 13, 48% (37/77) of inmates indicated that they would use a nicotine patch to help quit smoking, while 43% said they would switch to smokeless tobacco as a means of quitting, and 57% were in favour of using nicotine chewing gum. A least 59 inmates or 76.6% of respondents indicated they would use some form of nicotine replacement therapy.

**Table 13: Nicotine Replacement Therapy**

<b>Nicotine replacement therapy</b>	<b>Yes</b>	<b>No</b>	<b>DK</b>
Would you use a nicotine patch to help you quit smoking	37 (48.1)	35 (45.5)	5 (6.5)
Switching to smokeless tobacco	33 (42.9)	38 (49.4)	6 (7.8)
Would you use nicotine chewing gum	44 (57.1)	27 (35.1)	6 (7.8)
Any form of nicotine replacement	59 (76.6)	18 (23.4)	

### **Smoking and the Environment**

In relation to an understanding of second-hand smoking (See table 14), the majority of respondents or 98% have heard of second-hand smoking with 95% also believing that second-hand smoking is dangerous. Moreover, a notably high proportion (72.3%) of respondents said they were affected by second-hand smoking.

**Table 14: Smoking and the Environment**

<b>Smoking and the environment</b>	<b>Yes</b>	<b>No</b>	<b>DK</b>
Have you heard of second-hand smoke	99 (98.0)	2 (2.0)	-
Do you think second-hand smoke is dangerous	96 (95.0)	4 (4.0)	1 (0.9)
Are you affected by second-hand smoke	73 (72.3)	26 (25.7)	2 (2.0)

## Conclusion

Despite a continuous decline in smoking prevalence around the globe, smoking prevalence among incarcerated persons remains high, while access to treatment and prevention remains limited. The analysis from the HMCIPS nicotine dependence survey indicates that a small but important proportion of inmates who currently smoke want to quit smoking and are willing to use some form of nicotine replacement therapy. Additionally, 38% of smokers were also assessed as being at a moderate to high/high risk of nicotine dependence, suggesting that treatment and prevention programs within the prison may be needed.

Quite a high proportion of smokers 60/77 (78%) reflect a willingness to stop smoking which indicates a great need for smoking cessation programmes addressed to them. Although only nine inmates expressed a desire not to quit, the study indicates that some policies should be adopted to improve smokers' information on tobacco consequences for health, as well as access to counselling interventions within the prison.

Our findings highlight the crucial need for cessation programmes targeted to prisoners. Efforts to reduce cigarette smoking in prisons need to tackle both group and individual factors, and anti-tobacco programmes should be addressed to all aspects of smoking habits, including behavioural, psychological, and biological processes governing addiction to nicotine.

It is recognised that in an environment like a prison, where smoking is an established and integral part of the culture and social norm, it will be difficult to address smoking behaviours and establish new norms. However, there is evidence to suggest that counselling and behavioural interventions used for smoking cessation in prisons have produced similar outcomes to those used in community settings. Similarly, there is also evidence to support the effectiveness of combined pharmacologic and psychological interventions for smoking cessation during incarceration<sup>3</sup>.

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<sup>3</sup> Interventions for Smoking Cessation and Treatments for Nicotine Dependence. Smoking Cessation: A Report of the Surgeon General, 2020 (cdc.gov)

Prisons have a duty to care for both those they hold in detention as well as their visitors and staff. In relation to smoking tobacco, this should include: (1) the promotion and support of cessation for those smokers wishing to quit; (2) protecting non-smokers from starting smoking; and (3) protecting prisoners, staff, and visitors from passive smoke exposure. Furthermore, interventions to reduce smoking-related harms should not be limited to persons within the prison population, as smokers who are awaiting trial or are on probation may also need help and support.

Appendix

Appendix I: Questionnaire Instrument for Nicotine Dependence

Variable name	Questions/Items	Response Options
Q1TOB	Do you currently smoke cigarettes? If "yes," read each question below. For each question, enter the answer choice which best describes his/her response. If no, please record prison status, gender, and age below and end interview.	1 [ ] yes    2 [ ] no
Q2TOB	Prison status	[ ] Remanded [ ] Convicted
Q3TOB	Gender	[ ] Male    [ ] Female
Q4TOB	Age	
Q5TOB	How soon after you wake up do you smoke your first cigarette?	[ ] Within 5 minutes [ ] 6 to 30 minutes [ ] 31 to 60 minutes [ ] After 60 minutes
Q6TOB	Do you find it difficult to refrain from smoking in places where it is forbidden (e.g., in church, at the library, in the cinema)?	1 [ ] yes    2 [ ] no
Q7TOB	Which cigarette would you hate most to give up?	[ ] The first one in the morning [ ] Any other
Q8TOB	How many cigarettes per day do you smoke?	[ ] 10 or less [ ] 11 to 20 [ ] 21 to 30 [ ] 31 or more
Q9TOB	Do you smoke more frequently during the first hours after waking than during the rest of the day?	1 [ ] yes    2 [ ] no
Q10TOB	Do you smoke when you are so ill that you are in bed most of the day?	1 [ ] yes    2 [ ] no

Factors promoting tobacco usage in prison and at liberty (when not incarcerated)

Change in tobacco usage habit in prisons		
Q11TOB	I use less tobacco daily during incarceration than at liberty	1 [ ] yes    2 [ ] no
Q12TOB	I use more tobacco daily during incarceration than at liberty	1 [ ] yes    2 [ ] no

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Q13TOB	I use the same amount of tobacco daily	1 [ ] yes	2 [ ] no
Q14TOB	<b>Is prison stress a factor enhancing the need for tobacco usage</b>	1 [ ] yes 3 [ ] DK	2 [ ] no
<b>Factors enhancing need for tobacco while imprisoned</b>			
Q15TOB	The lack of freedom	1 [ ] yes	2 [ ] no
Q16TOB	Anxiety about the case and sentence	1 [ ] yes	2 [ ] no
Q17TOB	Fear about the crime committed	1 [ ] yes	2 [ ] no
Q18TOB	Bad relations with the prison staff	1 [ ] yes	2 [ ] no
Q19TOB	Bad relations with other prisoners	1 [ ] yes	2 [ ] no
Q20TOB	Missing your family and close friends	1 [ ] yes	2 [ ] no
Q21TOB	Anxiety about your own affairs to deal with at liberty	1 [ ] yes	2 [ ] no
Q22TOB	The lack of alcohol	1 [ ] yes	2 [ ] no
Q23TOB	The lack of narcotics/marijuana, etc	1 [ ] yes	2 [ ] no
Q24TOB	The lack of sex	1 [ ] yes	2 [ ] no
Q25TOB	Boredom	1 [ ] yes	2 [ ] no
Q26TOB	Any other reasons	1 [ ] yes	2 [ ] no
<b>Factors that trigger tobacco usage at liberty (when not incarcerated)</b>			
Q27TOB	A pleasant taste and smell of tobacco smoke	1 [ ] yes	2 [ ] no
Q28TOB	Stress	1 [ ] yes	2 [ ] no
Q29TOB	The will to increase concentration	1 [ ] yes	2 [ ] no
Q30TOB	The need to relax	1 [ ] yes	2 [ ] no
Q31TOB	When having meals or drinking coffee	1 [ ] yes	2 [ ] no
Q32TOB	When in a depressed mood	1 [ ] yes	2 [ ] no
Q33TOB	The will to be like my friends	1 [ ] yes	2 [ ] no
Q34TOB	Any other reasons	1 [ ] yes	2 [ ] no

**Factors responsible for tobacco cessation**

Q35TOB	<b>Have you ever attempted to quit smoking/tobacco use (If yes, please continue, if no, skip to table 4)</b>	1 [ ] yes	2 [ ] no
<b>Reasons for quitting attempts</b>			
Q36TOB	Limited access to tobacco	1 [ ] yes	2 [ ] no
Q37TOB	The will to save some money	1 [ ] yes	2 [ ] no
Q38TOB	Anxiety about health	1 [ ] yes	2 [ ] no
Q39TOB	The fight against my/your own weakness	1 [ ] yes	2 [ ] no
Q40TOB	Somebody else's instigation	1 [ ] yes	2 [ ] no
Q41TOB	The will to be in control	1 [ ] yes	2 [ ] no
Q42TOB	Any other reasons	1 [ ] yes	2 [ ] no
<b>Sentences describing the fact of successful quitting tobacco</b>			

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Q43TOB	I have successfully stopped using tobacco at liberty	1 [ ] yes	2 [ ] no
Q44TOB	I have successfully stopped using tobacco while incarcerated	1 [ ] yes	2 [ ] no
<b>Reasons for relapse in quitting tobacco</b>			
Q45TOB	Alcohol drinking	1 [ ] yes	2 [ ] no
Q46TOB	Stress	1 [ ] yes	2 [ ] no
Q47TOB	Yielding to one's persuasion	1 [ ] yes	2 [ ] no
Q48TOB	Depressed mood	1 [ ] yes	2 [ ] no
Q49TOB	Joy	1 [ ] yes	2 [ ] no
Q50TOB	Boredom	1 [ ] yes	2 [ ] no
Q51TOB	Any other reasons	1 [ ] yes	2 [ ] no
<b>Which of the following best describes your thinking about quitting smoking?</b>			
Q52TOB	I am planning to quit within the next month,	1 [ ] yes	2 [ ] no
Q53TOB	I am thinking about quitting within the next 12 months	1 [ ] yes	2 [ ] no
Q54TOB	I will quit someday but not within the next 12 months	1 [ ] yes	2 [ ] no
Q55TOB	I am not interested in quitting	1 [ ] yes	2 [ ] no
<b>Smoking and the environment</b>			
Q56TOB	Have you heard of second-hand smoke		
Q57TOB	Do you think second-hand smoke is dangerous	1 [ ] yes 3 [ ] DK	2 [ ] no
Q58TOB	Are you affected by second-hand smoke	1 [ ] yes 3 [ ] DK	2 [ ] no

**Nicotine replacement therapy**

Q59TOB	Would you use a nicotine patch to help you quit smoking	1 [ ] yes 3 [ ] DK	2 [ ] no
Q60TOB	Switching to smokeless tobacco	1 [ ] yes 3 [ ] DK	2 [ ] no
Q61TOB	Would you use nicotine chewing gum	1 [ ] yes 3 [ ] DK	2 [ ] no