

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

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2023



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## Key Findings

1. More than 6 in 10 offenders (67.4%) were smokers while 32.6% were non-smokers. Of those who smoked, 80.7% were convicted and 19.3% were on remand.
2. Most smokers reported that they smoke 10 or less cigarettes a day (42.8%), with 17.6% smoking 11 to 20 cigarettes a day, 3.7% smoking 21 to 30 cigarettes a day, and 2.7% smoking 31 or more a day.
3. Overall, only a small proportion (1.1%) of smokers were assessed as **not** having a nicotine dependence.
4. Of those who smoked, 15.0% were assessed as having a low dependence, 40.1% as having moderate dependence, 10.7% as having a high risk of nicotine dependence.
5. The analysis shows that 95/125 (76.0%) inmates who smoke are at a moderate to high risk for nicotine dependence and could benefit from smoking cessation interventions.
6. Of the 95 inmates assessed as having moderate to high risk of dependence, 75.8% were convicted while 24.2% were on remand.
7. Of the 95 inmates assessed as having moderate to high risk of dependence, 68.4% were under the age of 40 years, while 27.3% were over the age of 40 years.
8. 62% of offenders reported that prison stress was a factor that enhances the need for tobacco use.
9. Almost half of all offenders (48.7%) reported that they use more tobacco daily while incarcerated than when they are at liberty.
10. The most common factors reported by offenders that enhances the need for tobacco use in prison was the lack of freedom (84.9%), missing friends and family (84.1%), boredom (76.2%), anxiety about the case and sentence (65.9%), anxiety about your own affairs to deal with at liberty (64.3%), and the lack of sex (58.7%).
11. Among current smokers, 78.6% of offenders have attempted to quit smoking.
12. In terms of nicotine dependence, 77.9% (74/95) of offenders who were assessed as having moderate to high risk of dependence reported also having attempted to quit smoking or using tobacco.

13. The most common factors reported by offenders for their quitting attempts were anxiety about one's health (51.6%), the will to be in control (51.6%), the fight against one's own weakness (49.2%), and the will to save money (46.8%).
14. The two most prevalent reasons for relapsing when trying to quit tobacco use included: (1) stress (57.1%); and (2) a depressed mood (50.8%).
15. Most offenders are thinking about quitting tobacco within the next 12 months (42.9%). 21 offenders or 16.7% reported that they are not interested in quitting.
16. When assessed alongside the risk for dependence, 76.0% of those who were planning to quit in the next month were at moderate to high risk of dependence, as were 79.6% who were thinking about quitting within the next 12 months. Three quarters of offenders with moderate to high risk of nicotine dependence are thinking about quitting someday but not within the next 12 months. 71.4% also reported that they are not interested in quitting.
17. The highest proportion with a risk for dependence was among those who were thinking about quitting within the next 12 months (79.6%).
18. When asked about nicotine replacement therapy, most offenders said that they would use a nicotine patch to help them quit smoking (46.8%). 42.9% would switch to smokeless tobacco, and 39.7% would use nicotine checking gum.
19. Most offenders reported that they have heard of second-hand smoke (92.9%) and that second-hand smoke is dangerous (90.5%). However, just over half of all smokers (57.1%) reported that they are affected by second-hand smoke.

## Background & Introduction

Tobacco contributes to more than 8 million deaths worldwide every year, and in some countries, accounts for more hospitalisations than alcohol and other drugs combined.<sup>1</sup> On a global scale, incarcerated populations remain one of the greatest at-risk groups for health consequences related to tobacco use. According to the World Health Organization, tobacco remains the most widely used psychoactive substance among prisoners, with prevalence rates ranging from as high as 90% among male inmates and 85% among female inmates.<sup>2</sup> Such a prevalence rate is reported to be 2-4 times higher than the prevalence rate of tobacco use among the general population, placing prison populations at a disproportionately higher risk of smoking-related illness and mortality.<sup>3,4</sup> As such, smoking-related diseases are among the leading causes of death and disability among incarcerated populations, however, despite the higher risks, this population is routinely unaddressed by national public health strategies for tobacco harm prevention.<sup>1,3</sup>

The probability of being exposed to second-hand smoke is also significantly higher within prison facilities. This stems not only from the high smoking prevalence but factors including poor ventilation and being predominately confined to indoor spaces.<sup>4</sup> This presents 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.<sup>1,4</sup> Second-hand smoke exposure increases the risk of developing heart disease and lung cancer among non-smokers by as much as 30%.<sup>1</sup> Smoke-free cells for non-smokers are reported as insufficient for preventing the harm of second-hand smoke.<sup>1,3</sup> As a result, both inmates and staff need effective interventions to reduce the subsequent health risks resulting from prison tobacco use.

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<sup>1</sup> World Health Organization. (2022). Tobacco. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/tobacco>

<sup>2</sup> World Health Organization. (2022). Tobacco use in prisons: A neglected public health issue. Retrieved from <https://www.who.int/europe/news/item/09-05-2022-tobacco-use-in-prisons--a-neglected-public-health-issue#:~:text=Among%20all%20psychoactive%20substances%2C%20tobacco,men%20and%2085%25%20among%20women.>

<sup>3</sup> World Health Organization. (2022). Tobacco use in prisons. Retrieved from [https://cdn.who.int/media/docs/librariesprovider2/euro-health-topics/tobacco-use-prisons-eng.pdf?sfvrsn=84982ed0\\_1](https://cdn.who.int/media/docs/librariesprovider2/euro-health-topics/tobacco-use-prisons-eng.pdf?sfvrsn=84982ed0_1)

<sup>4</sup> Zhang, J. (2018). Prison smoking bans in the United States: current policy, impact and obstacle. *Journal of Hospital Management and Health Policy*. 2(20),18-34.

## 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. Simultaneously, 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>5</sup> 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. Smoking has also been identified as a way of helping to manage stressful situations such as 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.

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,

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<sup>5</sup> MacAskill, S., Hayton, P. (2006). Stop smoking support in HM Prisons: The impact of nicotine replacement therapy. Retrieved from <https://bulger.co.uk/prison/Stop%20Smoking%20Support%202006.pdf>

with an explicit mention of prisoners and prison staff, need to be protected from exposure to environmental tobacco smoke.



## Demographics

A total of 187 inmates were interviewed for the Nicotine Dependency Survey. Of these respondents, 163 were male offenders and 24 were female offenders, with 80.7% being convicted and 19.3% on remand.

Of all respondents, 67.4% identified themselves as current smokers, and 32.6% identified that they are non-smokers. Among male offenders, most smokers are of the age grouping of 20-29 years old (33.6%), followed by 30-39 years old (29.3%), 40-49 years old (25.9%), 50-59 years old (6.0%), and lastly 60-69 years old (0.9%). Among female offenders, most smokers are of the 30–39-year-old cohort (51.1%), followed by 40-49 years old (19.1%), 50-59 years old (17.0%), 20-29 years old (21.4%), and 1% of smokers being between the ages of 50-59 and 60+ years old.

There was no statistically significant difference between smokers and non-smokers with respect to their prison status ( $p > 0.05$ ).

**TABLE 1: DEMOGRAPHIC VARIABLES OF OFFENDERS**

| <i>Distribution of Demographic Variables</i> |                  |
|--|------------------|
| <b>Smoking Status</b>                        | <b>Frequency</b> |
| Smokers                                      | 126 (67.4)       |
| Non-Smokers                                  | 61 (32.6)        |
| <b>Age</b>                                   |                  |
| 17 or younger                                | 1 (0.5)          |
| 20-29 years                                  | 47 (25.1)        |
| 30-39 years                                  | 68 (36.4)        |
| 40-49 years                                  | 44 (23.5)        |
| 50-59 years                                  | 17 (9.1)         |
| 60+  | 4 (2.1)          |
| <b>Sex</b>                                   |                  |
| Male   | 163 (87.2)       |
| Female                                       | 24 (12.8)        |
| <b>Prison Status</b>                         |                  |
| Remanded                                     | 36 (19.3)        |
| Convicted                                    | 151 (80.7)       |

**TABLE 2: SMOKING STATUS BY AGE AND PRISON STATUS**

| <i>Smoking Status By Age &amp; Prison Status</i> |                |                    |
|--|----------------|--------------------|
| <b>Age Grouping</b>                              | <b>Smokers</b> | <b>Non-Smokers</b> |
| 17 or younger                                    | 1 (0.8)        | -                  |
| 20-29 years                                      | 42 (33.3)      | 5 (8.2)            |
| 30-39 years                                      | 38 (30.2)      | 30 (49.2)          |
| 40-49 years                                      | 32 (25.4)      | 12 (19.7)          |
| 50-59 years                                      | 8 (6.3)        | 9 (14.8)           |
| 60+  | 1 (0.8)        | 3 (4.9)            |
| <b>Prison Status</b>                             |                |                    |
| Remanded   | 28 (77.8)      | 8 (22.2)           |
| Convicted  | 98 (64.9)      | 53 (35.1)          |

### Fagerstrom Test for Nicotine Dependence

The *Fagerstrom Test for Nicotine Dependence* consists of six questions, which can be seen in Table 3 below. 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?”. Most inmates responded that they smoke their first cigarette within 6-30 minutes after waking up (27.8%). Approximately 17% reported that they smoke their first cigarette within the first 5 minutes after waking up, 13.4% said after 60 minutes from waking up, and 9.1% said within 31-60 minutes after waking up.

**TABLE 3: RESPONSES TO THE FAGERSTROM TEST FOR NICOTINE DEPENDENCE**

| <i>Responses to the Fagerstrom Test for Nicotine Dependence</i>                          |                  |
|--|------------------|
| <b>How soon after you wake up do you smoke your first cigarette?</b>                     | <b>Frequency</b> |
| Within 5 minutes   | 31 (16.6)        |
| 6-30 minutes   | 52 (27.8)        |
| 31-60 minutes  | 17 (9.1)         |
| After 60 minutes   | 25 (13.4)        |
| <b>Do you find it difficult to refrain from smoking in places where it is forbidden?</b> | <b>Frequency</b> |
| Yes  | 30 (16.0)        |

## HMCIPS NICOTINE DEPENDENCE REPORT 2023

|  |                  |
|--|------------------|
| No   | 95 (50.8)        |
| <b>Which cigarette would you hate most to give up?</b>   | <b>Frequency</b> |
| The first one in the morning   | 57 (30.5)        |
| Any other  | 66 (35.3)        |
| <b>How many cigarettes per day do you smoke?</b>   | <b>Frequency</b> |
| 10 or less   | 80 (42.8)        |
| 11 to 20   | 33 (17.6)        |
| 21 to 30   | 7 (3.7)          |
| 31 or more   | 5 (2.7)          |
| <b>Do you smoke more frequently during the first hours after waking than during the rest of the day?</b> | <b>Frequency</b> |
| Yes  | 65 (34.8)        |
| No   | 60 (32.1)        |
| <b>Do you smoke when you are so ill that you are in bed most of the day?</b>                             | <b>Frequency</b> |
| Yes  | 35 (18.7)        |
| No   | 90 (48.1)        |

When asked whether they find it hard to not smoke in places where it is forbidden, about half of all respondents responded no (50.8%) while 16.0% of respondents said yes.

Inmates were asked to indicate which cigarette they would hate to give up most between either the first one in the morning or any other one. There was an equal proportion reported by inmates between each option, with 30.5% of inmates responding that they would hate most to give up the very first cigarette in the morning while 35.3% would hate to give up any other cigarette.

Inmates were also asked to respond as to whether they smoke when they are so ill and in bed most of the day. Most inmates reported that they will not continue to smoke when they are ill and in bed most of the day (48.1%), while 18.7% responded yes.

### Dependence Scale

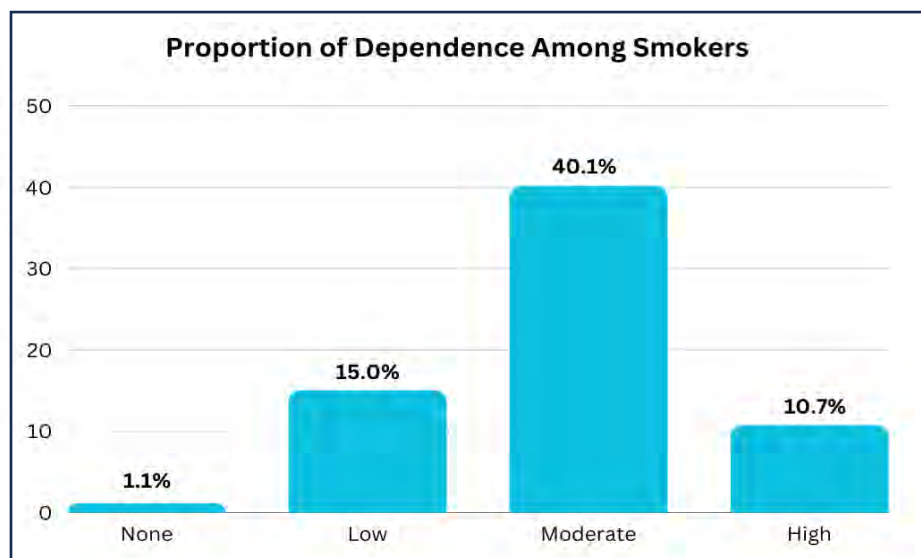
The dependence score attained from the six questions were computed into a dependence scale to reflect an indication of: (1) no dependence; (2) low dependence; (3) moderate dependence; and (5) high risk of dependence.

As demonstrated in Table 4 below, only two offenders (1.1%) were assessed as not having a nicotine dependence. Most offenders (40.1%) were assessed as having moderate nicotine dependence, while 15.0% were assessed as having low dependence, and 10.7% as having a high risk of nicotine dependence.

**TABLE 4: NICOTINE DEPENDENCE AMONG SMOKING INMATES BY PRISON STATUS**

| <i>Levels of Nicotine Dependence Among Smoking Inmates by Prison Status</i> |                   |                  |                  |
|---|-------------------|------------------|------------------|
| Nicotine Dependence Level   | Frequency         |                  |                  |
|   | Overall           | Convicted        | Remanded         |
| None  | 2 (1.1)           | 2 (1.3)          | -                |
| Low   | 28 (15.0)         | 23 (15.2)        | 5 (13.9)         |
| Moderate  | 75 (40.1)         | 58 (38.4)        | 17 (47.2)        |
| High  | 20 (10.7)         | 14 (9.3)         | 6 (16.7)         |
| <b>Total</b>  | <b>125 (66.8)</b> | <b>97 (64.2)</b> | <b>28 (77.8)</b> |

**FIGURE 1: NICOTINE DEPENDENCE AMONG SMOKING INMATES**



### Dependence Among Convicted and Remanded Offenders

Of the 95 inmates assessed as having moderate to high risk of dependence, 75.8% were convicted while 24.2% were on remand. Of the same 95 inmates, 68.4% (65/95) were under the age of 40 years, while 27.3% (26/95) were over the age of 40 years.

**TABLE 5: DEPENDENCE AMONG SMOKERS BY AGE GROUPING**

| <i>Distribution of Nicotine Dependence by Age Grouping</i> |               |             |             |            |             |          |
|--|---------------|-------------|-------------|------------|-------------|----------|
|  | 17 or younger | 20-29 years | 30-39 years | 40-49 year | 50-59 years | 60+      |
| <b>None</b>  | -             | 1           | -           | 1          | -           | -        |
| <b>Low</b>   | -             | 9           | 6           | 11         | 2           | -        |
| <b>Moderate</b>  | 1             | 26          | 26          | 13         | 4           | 1        |
| <b>High Risk</b>   | -             | 6           | 6           | 6          | 2           | -        |
| <b>Total</b>   | <b>1</b>      | <b>42</b>   | <b>38</b>   | <b>31</b>  | <b>8</b>    | <b>1</b> |

### Comparison in Dependence Scores from 2021-2023

**TABLE 6: COMPARISON OF NICOTINE DEPENDENCE LEVELS AMONG SMOKING INMATES FROM 2021-2023**

| <i>Levels of Nicotine Dependence from 2021-2023</i> |           |            |
|---|-----------|------------|
|   | Frequency |            |
|   | 2021      | 2023       |
| <b>None</b>   | 9 (12.2)  | 2 (1.1)    |
| <b>Low</b>  | 10 (13.5) | 28 (15.0)  |
| <b>Moderate</b>                                     | 27 (36.5) | 75 (40.1)  |
| <b>High</b>   | 22 (29.7) | 20 (10.7)  |
| <b>Very High</b>                                    | 6 (8.1)   | -          |
| <b>Total</b>  | <b>74</b> | <b>125</b> |

When comparing the dependence scores from the 2021 and 2023 surveys, most smoking offenders across both survey years were assessed as having a “moderate” risk of nicotine dependence (36.5% in 2021 vs 40.1% in 2023).

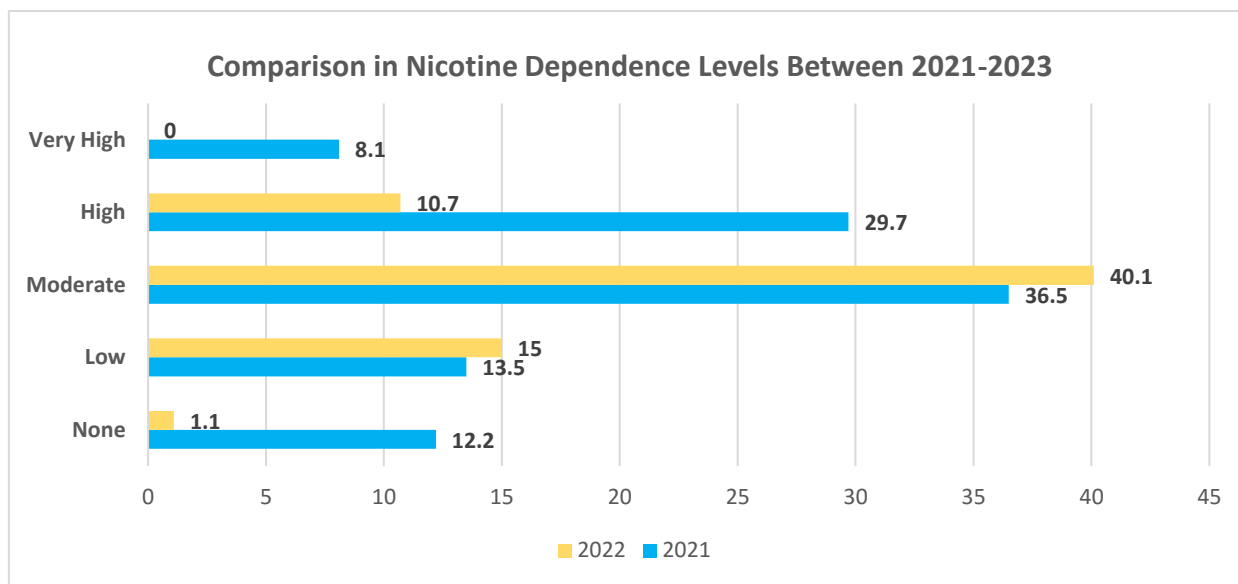
However, a notable change was observed among inmates assessed at the “very high” risk of nicotine dependence, with 8.1% of offenders scoring at this level in 2021 and no offenders

scoring at this level in 2023. Similarly, the proportion of offenders assessed as having a “high” risk of nicotine dependence was also lower in 2023 (10.7%) when compared to the 2021 survey (29.7%).

However, a much smaller proportion of offenders were assessed as having “no risk” of nicotine dependence in the 2023 survey (1.1%) when compared to the 2021 (12.2%) survey results.

A similar proportion of offenders scored at the “low” level of nicotine dependence across both survey years.

**FIGURE 2: COMPARISON OF NICOTINE DEPENDENCE LEVELS AMONG SMOKING INMATES FROM 2021-2023**



### Changes in Tobacco Use While in Prison

Offenders were asked to indicate changes in their tobacco use while in prison. Most offenders (48.7%) reported that they use more tobacco daily while incarcerated compared to when they are at liberty. 11.8% of offenders reported that they use less tobacco while incarcerated than at liberty, and 6.4% reported that they smoke the same amount of tobacco daily.

When asked whether prison stress is a factor that enhances the need for tobacco use, most offenders responded “yes” (62.0%) while only 4.3% said “no”.

**TABLE 7: CHANGES IN DAILY TOBACCO USE WHILE IN PRISON**

| <i>Changes in Daily Tobacco Use While Incarcerated</i>                |            |         |
|---|------------|---------|
|   | Yes        | No      |
| <b>Is prison stress a factor enhancing the need for tobacco usage</b> | 116 (62.0) | 8 (4.3) |
| <b>Change in tobacco use in prison</b>                                |            |         |
| I use <b>less</b> tobacco daily during incarceration than at liberty  | 22 (11.8)  | -       |
| I use <b>more</b> tobacco daily during incarceration than at liberty  | 91 (48.7)  | -       |
| I use the <b>same</b> amount of tobacco daily                         | 12 (6.4)   | -       |

**Factors Enhancing Need for Tobacco While Imprisoned**

Offenders were asked to indicate what factors enhance the need for tobacco use while incarcerated as outlined in Table 8 below. The six most common factors that were reported by offenders included:

- The lack of freedom (84.9%)
- Missing friends and family (84.1%)
- Boredom (76.2%)
- Anxiety about the case and sentence (65.9%)
- Anxiety about your own affairs to deal with at liberty (64.3%)
- The lack of sex (58.7%)

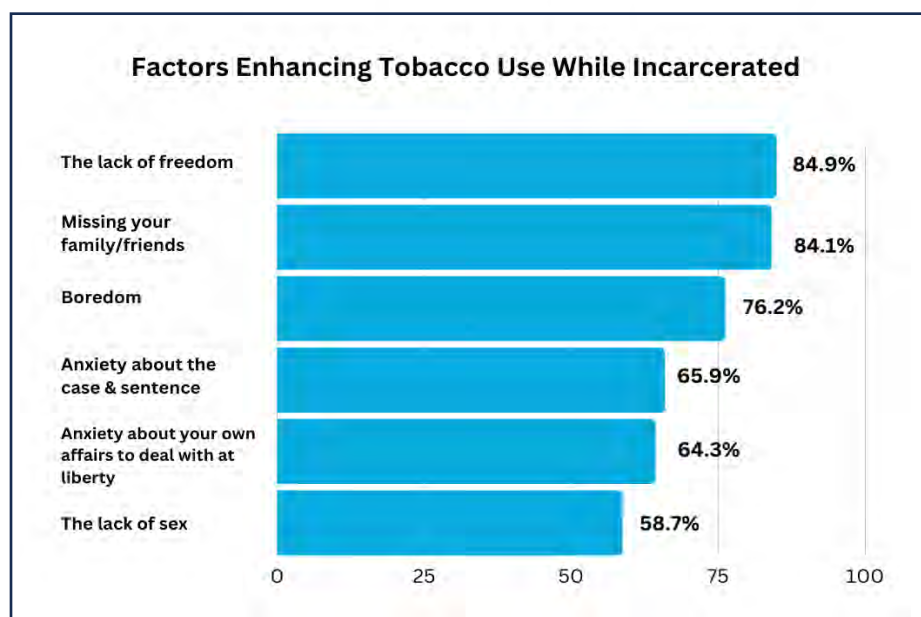
The least commonly reported factors for enhancing prison tobacco use was “the lack of alcohol” (16.7%), “bad relations with prison staff” (34.9%), “bad relations with other prisoners” (35.7%), “The lack of narcotics/marijuana etc.” (36.5%), and lastly the “fear about the crime committed” (37.3%).

**TABLE 8: FACTORS ENHANCING THE NEED FOR TOBACCO WHILE IN PRISON**

| <i>Factors Enhancing the Need for Tobacco While in Prison</i> |            |           |
|---|------------|-----------|
| Factors Enhancing the Need for Tobacco While Incarcerated     | Yes        | No        |
| <b>The lack of freedom</b>                                    | 107 (84.9) | 13 (10.3) |
| <b>Anxiety about the case and sentence</b>                    | 83 (65.9)  | 38 (30.2) |
| <b>Fear about the crime committed</b>                         | 47 (37.3)  | 72 (57.1) |

|  |            |            |
|--|------------|------------|
| Bad relations with the prison staff                    | 44 (34.9)  | 74 (58.7)  |
| Bad relations with other prisoners                     | 45 (35.7)  | 73 (57.9)  |
| Missing your family and close friends                  | 106 (84.1) | 15 (11.9)  |
| Anxiety about your own affairs to deal with at liberty | 81 (64.3)  | 39 (31.0)  |
| The lack of alcohol                                    | 21 (16.7)  | 98 (77.8)  |
| The lack of narcotics/marijuana etc.                   | 46 (36.5)  | 73 (57.9)  |
| The lack of sex  | 74 (58.7)  | 43 (34.1)  |
| Boredom  | 96 (76.2)  | 24 (19.0)  |
| Any other reasons                                      | 6 (4.8)    | 120 (95.2) |

FIGURE 3: FACTORS ENHANCING THE NEED FOR TOBACCO WHILE IN PRISON



Factors that Trigger Tobacco Usage at Liberty

Inmates were asked to identify what factors enhance the need for tobacco use when at liberty.

The most prevalent responses indicated were:

- Stress (70.6%)
- When in a depressed mood (61.1%)
- When having meals or drinking coffee (57.1%)
- The need to relax (54.0%)

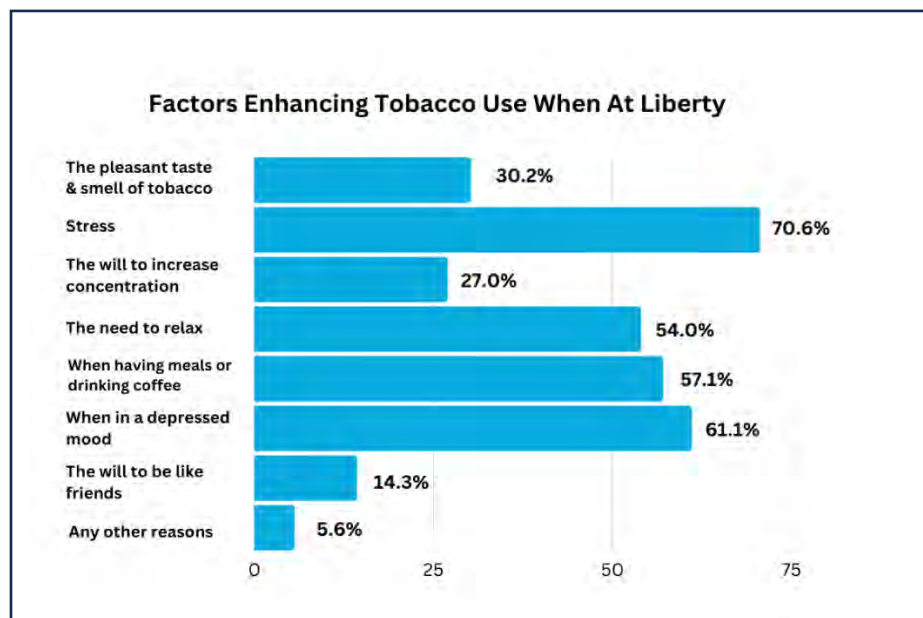


The least commonly reported factors included “the will to be like friends” (14.3%), “the will to increase concentration” (27.0%), and the “pleasant taste and smell of tobacco smoke” (30.2%).

TABLE 9: FACTORS ENHANCING THE NEED FOR TOBACCO WHEN AT LIBERTY

| <i>Factors Enhancing the Need for Tobacco at Liberty</i> |           |            |
|--|-----------|------------|
| Factors Enhancing the Need for Tobacco at Liberty        | Yes       | No         |
| The pleasant taste and smell of tobacco smoke            | 38 (30.2) | 77 (61.1)  |
| Stress   | 89 (70.6) | 29 (23.0)  |
| The will to increase concentration                       | 34 (27.0) | 81 (64.3)  |
| The need to relax  | 68 (54.0) | 48 (38.1)  |
| When having meals or drinking coffee                     | 72 (57.1) | 43 (34.1)  |
| When in a depressed mood                                 | 77 (61.1) | 39 (31.0)  |
| The will to be like my friends                           | 18 (14.3) | 97 (77.0)  |
| Any other reasons  | 7 (5.6)   | 119 (94.4) |

FIGURE 4: FACTORS ENHANCING THE NEED FOR TOBACCO WHILE AT LIBERTY



### Factors Responsible for Tobacco Cessation

A reported 78.6% of offenders who smoke indicated that they have attempted to quit tobacco use at least once in their lifetime. Table 10 below demonstrates the factors involved in an

inmate’s quitting attempts. Both “the will to be in control” and “anxiety about my health” were equally indicated as the top two reasons behind an inmates attempt to quit smoking tobacco.

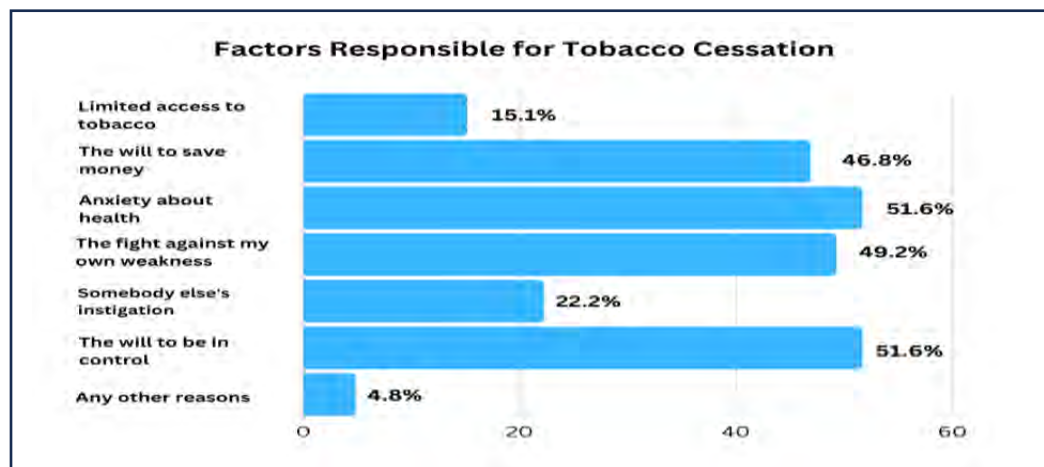
In terms of dependence, 77.9% (74/95) of the inmates who were assessed as having moderate to high risk of nicotine dependence also reported that they have attempted to quit smoking or using tobacco.

**TABLE 10: FACTORS RESPONSIBLE FOR TOBACCO CESSATION**

| <i>Factors Responsible for Smoking Cessation</i> |           |            |
|--|-----------|------------|
| Have you ever attempted to quit tobacco use      | Yes       | No         |
|  | 99 (78.6) | 25 (19.8)  |
| Reasons for quitting attempts                    |           |            |
| Limited access to tobacco                        | 19 (15.1) | 75 (59.5)  |
| The will to save some money                      | 59 (46.8) | 36 (28.6)  |
| Anxiety about health                             | 65 (51.6) | 32 (25.4)  |
| The fight against my/your own weakness           | 62 (49.2) | 33 (26.2)  |
| Somebody else’s instigation                      | 28 (22.2) | 67 (53.2)  |
| The will to be in control                        | 65 (51.6) | 30 (23.8)  |
| Any other reasons                                | 6 (4.8)   | 120 (95.2) |

The main reasons that were given for attempts to quit smoking included: (1) the will to be in control (51.6%); (2) anxiety about health (51.6%); (3) the fight against their own weakness (49.2%); and (4) the will to save some money (46.8%).

**FIGURE 5: FACTORS RESPONSIBLE FOR TOBACCO CESSATION**



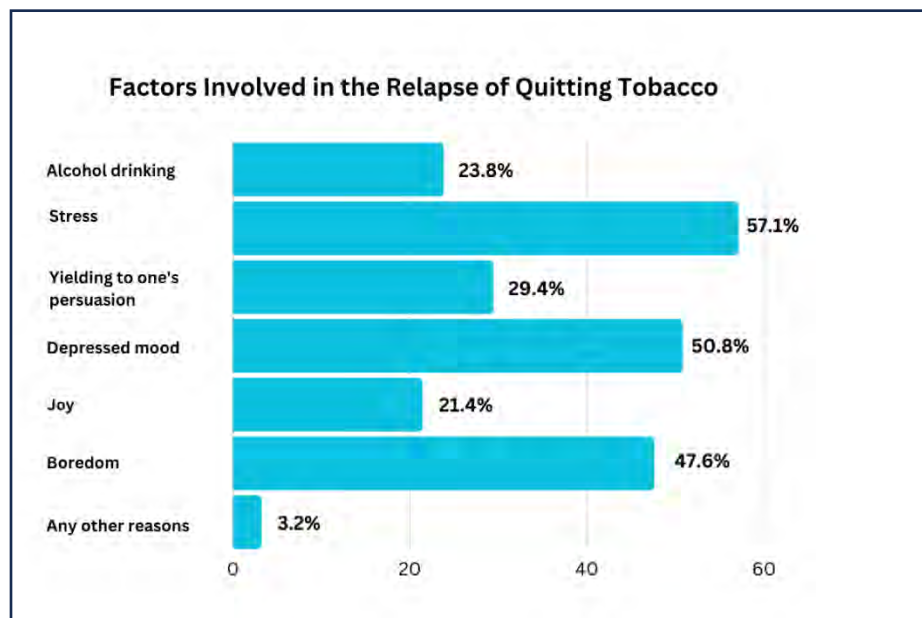
### Relapse in Quitting Tobacco Use

Inmates were asked to indicate the reasons for their relapse in quitting tobacco use. Stress (57.1%) and a depressed mood (50.8%) were given as the top two most prevalent reasons for the relapse in the quitting of tobacco use. However, a notable proportion of inmates also reported boredom (47.6%) as a top reason for their relapse.

**TABLE 11: FACTORS INVOLVED IN THE RELAPSE OF QUITTING TOBACCO**

| <i>Reasons for Relapse in Inmates Attempts to Quit Tobacco</i> |            |            |
|--|------------|------------|
| <b>Reasons for relapse in quitting tobacco</b>                 | <b>Yes</b> | <b>No</b>  |
| Alcohol drinking   | 30 (23.8)  | 63 (50.0)  |
| Stress   | 72 (57.1)  | 24 (19.0)  |
| Yielding to one’s persuasion                                   | 37 (29.4)  | 54 (42.9)  |
| Depressed mood   | 64 (50.8)  | 29 (23.0)  |
| Joy  | 27 (21.4)  | 63 (50.0)  |
| Boredom  | 60 (47.6)  | 33 (26.2)  |
| Any other reasons  | 4 (3.2)    | 122 (96.8) |

**FIGURE 6: FACTORS INVOLVED IN THE RELAPSE OF QUITTING TOBACCO**



### Inmates’ Thinking About Quitting Smoking

Inmates were asked to indicate where they currently stand in relation to quitting smoking based on the various statements outlined in Table 12 below. Most respondents indicated that they are thinking about quitting within the next 12 months (42.9%), however, a notable proportion indicated that they will quit someday but not within the next 12 months (34.9%). 16.7% of inmates also reported that they are not interested in quitting.

**TABLE 12: INMATE’S CURRENT THINKING REGARDING THE QUITTING OF TOBACCO**

| <i>Inmate’s Thoughts on Quitting Tobacco</i>           |            |           |
|--|------------|-----------|
| <b>Inmate’s thinking about quitting smoking</b>        | <b>Yes</b> | <b>No</b> |
| I am planning to quit within the next month            | 25 (19.8)  | 56 (44.4) |
| I am thinking about quitting within the next 12 months | 54 (42.9)  | 30 (23.8) |
| I will quit someday but not within the next 12 months  | 44 (34.9)  | 43 (34.1) |
| I am not interested in quitting                        | 21 (16.7)  | 55 (43.7) |

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

Inmate who responded “yes” to the statement “I am thinking about quitting within the next 12 months” were cross tabulated with moderate to high/high risk for dependence in Table 13 below.

The cross-tabulation showed that 76% of those who were planning to quit within the next month were at a moderate to high risk of dependence. The highest proportion of those at risk for dependence included 79.6% of those who were thinking about quitting within the next 12

**TABLE 13: INMATE’S CURRENT THINKING REGARDING THE QUITTING OF TOBACCO BY DEPENDENCE**

| <i>Inmate’s Current Thinking Regarding the Quitting of Tobacco by Dependence</i> |          |  |
|--|----------|--|
| <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                                      | 25       | 19 (76.0)  |
| I am thinking about quitting within the next 12 months                           | 54       | 43 (79.6)  |
| I will quit someday but not within the next 12 months                            | 44       | 33 (75.0)  |
| I am not interested in quitting  | 21       | 15 (71.4)  |

months. Three-quarters (75%) of those assessed as having a moderate to high risk of dependence reported that they will quit someday but not within the next 12 months. Additionally, a notable proportion (71.4%) of those assessed for moderate-high risk of dependence also reported that they were not interested in quitting.

### Nicotine Replacement Therapy

With respect to nicotine replacement therapy, most inmates indicated that they would use a nicotine patch to help quit smoking (46.8%). 42.9% said that they would switch to smokeless tobacco and 39.7% reported that they would use nicotine chewing gum.

**TABLE 14: NICOTINE REPLACEMENT THERAPY**

| <i>Nicotine Replacement Therapy</i>                     |            |           |                     |
|---|------------|-----------|---------------------|
| <b>Nicotine Replacement Therapy</b>                     | <b>Yes</b> | <b>No</b> | <b>I Don't Know</b> |
| Would you use a nicotine patch to help you quit smoking | 59 (46.8)  | 58 (46.0) | 7 (5.6)             |
| Would you switch to smokeless tobacco                   | 54 (42.9)  | 59 (46.8) | 11 (8.7)            |
| Would you use nicotine chewing gum                      | 50 (39.7)  | 69 (54.8) | 5 (4.0)             |

### Smoking and the Environment

Inmates were asked questions to assess their understanding of second-hand smoke and whether they feel they are impacted by second-hand smoke while in prison. Almost all inmates except for 7 indicated that they have heard of second-hand smoke (92.9%). Of all inmates, 90.5% also indicated that they believe second-hand smoke is dangerous and more than half (57.1%) also indicated that they are affected by second-hand smoke in prison.

**TABLE 15: SECOND-HAND SMOKE AND THE ENVIRONMENT**

| <i>Second-hand Smoke and the Environment</i> |            |           |                     |
|--|------------|-----------|---------------------|
| <b>Smoking and the Environment</b>           | <b>Yes</b> | <b>No</b> | <b>I Don't Know</b> |
| Have you heard of second-hand smoke          | 117 (92.9) | 6 (4.8)   | 1 (0.8)             |
| Do you think second-hand smoke is dangerous  | 114 (90.5) | 6 (4.8)   | 4 (3.2)             |
| Are you affected by second-hand smoke        | 72 (57.1)  | 48 (38.1) | 3 (2.4)             |

## Conclusion

While the harms of tobacco use remain a priority among public health initiatives across the globe, there remains a significant gap in tobacco focused public health strategies among incarcerated populations. This gap has persisted on a global level despite prison facilities holding a high concentration of the smoking population within any given country.<sup>6</sup> If smoking cessation programmes along with other anti-tobacco public health strategies were prioritized among incarcerated populations, this could have a significant impact on reducing the burden of tobacco harms at the population level by reaching a significant proportion of a countries smoking population.

Within the Cayman Islands, the analysis from the HMCIPS Nicotine Dependence Survey demonstrated that all but 2 (1.1%) offenders who smoke are at some degree of risk for nicotine dependence. Among current smokers, most score within the moderate-high risk level of nicotine dependence according to the results of the *Fagerstrom Test for Nicotine Dependence*. Of these offenders, 79.6% have also indicated that they are thinking about quitting within the next 12 months. With a notable proportion of offenders indicating a willingness to try various nicotine replacement therapies, a greater focus on smoking cessation strategies for inmates would prove beneficial for offenders who would like to quit smoking.

The results from this survey highlight that smoking cessation programmes, in addition to addressing nicotine addiction, will also need to address a range of psychosocial factors connected to tobacco use including stress management, mental health concerns, and other relational factors. Factors including missing family and friends (84.1%), anxiety about their case and sentencing (65.9%), anxiety about their affairs to deal with at liberty (64.3%), and the stress of being incarcerated (62.0%), are frequently cited as reasons that enhance the need or desire to use tobacco while in prison. Moreover, the role of stress (57.1%) and a depressed mood (50.8%) are frequently cited as reasons for offenders' relapse in the quitting of tobacco.

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<sup>6</sup> Spaulding et al. (2018). Smoking in correctional settings worldwide: Prevalence, bans, and interventions. *Epidemiology Review*. 40(1), 82-95.

In addition to smoking cessation strategies, there is a need to provide greater education on the harms of tobacco use, particularly in relation to second-hand smoke. Although 93% of offenders have heard of second-hand smoke, and 90% also believe that second-hand smoke is dangerous, only 57.0% of smokers believe they are affected by second-hand smoke while in prison. This suggests that there may be a disconnect between an understanding of second-hand smoke on a theoretical level versus its applicability to the offender's current environment and the impact of second-hand smoke on them and others while in prison.

The findings from the survey highlight the need for public health strategies that can reduce the impact of tobacco smoking not only among current smokers but also among non-smoking offenders and staff. With almost 70% of the prison population identifying as smokers, there is a need to support those who are exposed to the dangers of second-hand smoke. It is recognised that it will be difficult to address smoking behaviours and establish new norms surrounding smoking in an environment like prison where smoking is an established and integral part of the culture and social norm. 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>7</sup>

In conclusion, based on the findings of this survey the three main areas of priority for the HMCIPS in relation to tobacco use should include: (1) the promotion and support of smoking cessation strategies that address a wide range of psychosocial factors involved in the use of tobacco; (2) enhancing the protection and well-being of non-smoking offenders and staff from passive smoking exposure; and (3) providing opportunities for enhanced education on the impact of tobacco use on the health of all persons within prison, especially in relation to second-hand smoke.

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<sup>7</sup> Interventions for Smoking Cessation and Treatments for Nicotine Dependence. Smoking Cessation: A Report of the Surgeon General, 2020 (cdc.gov)