**SUPPLEMENTARY MATERIALS**

Most planned analyses were pre-registered (<https://osf.io/d2nv6/>). As an unregistered change to the analysis plan, 12 months of data (rather than the original plan of 6) were used to provide more information into the early profile of menthol smoking since the ban.

**Measures**

*Current smoking*

Smoking status was ascertained using the following question and response options:

1. I smoke cigarettes (including hand rolled) every day
2. I smoke cigarettes (including hand rolled), but not every day
3. I do not smoke cigarettes at all, but I do smoke tobacco of some kind (e.g. Pipe, Cigar or Shisha)
4. I have stopped smoking completely in the last year
5. I stopped smoking completely more than a year ago
6. I have never been a smoker (i.e. smoked for a year or more)

Respondents were classified as current cigarette smokers if they reported answers of 1 or 2 above.

Those who indicate that they do not smoke cigarettes, but do smoke tobacco of some kind (answer 3 above) were excluded from the analysis because these products are not included in the menthol ban, and because they do not include measures of dependence that are measure for cigarette smokers (cigarettes per day and time to first cigarette after waking).

*Motivation to stop smoking*

Motivation to stop smoking was assessed using the Motivation To Stop Scale (10), a single-item measure with seven response options representing increasing motivation to quit:

1. ‘I don’t want to stop smoking’
2. ‘I think I should stop smoking but don’t really want to’
3. ‘I want to stop smoking but haven’t thought about when’
4. ‘I REALLY want to stop smoking but I don’t know when I will’
5. ‘I want to stop smoking and hope to soon’
6. ‘I REALLY want to stop smoking and intend to in the next 3 months’
7. ‘I REALLY want to stop smoking and intend to in the next month’.

For ease of interpretation, responses were collapsed into two variables reflecting high (6–7) vs. low (1–5) motivation to stop smoking.

*Socio-demographic covariates*

The sociodemographic characteristics gender (categorized as women, men or in another other way), age (categories 16-24, 25-34, 35-44, 45-54, 55-64, and ≥65 years) and occupational social grade (AB: higher and intermediate managerial, administrative and professional, C1: supervisory, clerical and junior managerial, administrative and professional, C2: skilled manual workers, D: semi-skilled and unskilled manual workers and E: state pensioners, casual and lowest-grade workers, unemployed with state benefits) and ethnicity (white or non-white) were included.

*Source of purchase*

In the last 6 months, have you bought any cigarettes or hand rolled tobacco from any of the following?

1. Newsagent\Off licence\Corner shop
2. Petrol garage shop
3. Supermarket
4. Cash and Carry
5. Internet
6. Pub (behind the bar)
7. Pub (vending machine)
8. Pub (somebody who comes round selling cigarettes cheap)
9. People who sell cheap cigarettes on the street
10. People in the local area who are a ready supply of cheap cigarettes
11. Buy them cheap from friends
12. Buy them from abroad and bring them back with me
13. Newsagent\Off license\Corner shop - ''under the counter''
14. Other (please specify)
15. Have not bought any in the last 6 months

**Table S1: Cigarette smoking prevalence by survey month July 2021 – January 2021\***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Month & year** | **Cigarette smokers (N)** | **Total Sample (N)** | **Smoking prevalence (%)** | **Lower 95% CI (%)** | **Upper 95% CI(%)** |
| July 2020 | 239 | 1696 | 14.1 | 12.5 | 15.8 |
| August 2020 | 246 | 1662 | 14.8 | 13.2 | 16.6 |
| September 2020 | 252 | 1667 | 15.1 | 13.5 | 16.9 |
| October 2020 | 246 | 1702 | 14.5 | 12.9 | 16.2 |
| November 2020 | 243 | 1609 | 15.1 | 13.4 | 16.9 |
| December 2020 | 241 | 1617 | 14.9 | 13.3 | 16.7 |
| January 2021 | 257 | 1672 | 15.4 | 13.7 | 17.2 |
| February 2021 | 233 | 1624 | 14.3 | 12.7 | 16.1 |
| March 2021 | 240 | 1572 | 15.3 | 13.6 | 17.1 |
| April 2021 | 263 | 1584 | 16.6 | 14.9 | 18.5 |
| May 2021 | 231 | 1667 | 13.9 | 12.3 | 15.6 |
| June 2021 | 255 | 1606 | 15.9 | 14.1 | 17.7 |

\*Estimates are weighted; CI = confidence intervals

**Table S2:** Sample description (weighted) by sociodemographic and smoking characteristics\*

| Characteristic | Other, N = 2,4501 | Menthol, N = 4581 | Test statistics2 |
| --- | --- | --- | --- |
| **Age** |  |  |  |
| 16-24 | 353 (14.4%) | 119 (25.9%) |
| 25-34 | 604 (24.7%) | 150 (32.7%) | Χ2=91.9, p<0.001, V=0.19 |
| 35-44 | 459 (18.7%) | 89 (19.5%) |
| 45-54 | 371 (15.1%) | 50 (10.9%) |
| 55-64 | 313 (12.8%) | 26 (5.8%) |
| 65+ | 349 (14.2.%) | 24 (5.2%) |
| Missing | 1 | 0 |  |
| **Gender** |  |  | Χ2=26.4, p<0.001, V=0.1 |
| Men/other | 1,340 (54.7%) | 192 (41.9%) |
| Women | 1,109 (45.3%) | 266 (58.1%) |
| **Social grade\*** |  |  | X2=13.0,p=0.01,V=0.07 |
| AB | 388 (16.4%) | 83 (15.6%) |
| C1 | 484 (20.5%) | 120 (29.3%) |
| C2 | 645 (27.2%) | 98 (25.1%) |
| D | 532 (22.5%) | 88 (18.6%) |
| E | 314 (13.3%) | 53 (11.4%) |
| Missing | 85 | 16 |
| **Ethnicity** |  |  | X2=0.1,p=0.75,V=0.01 |
| White | 1,768 (86.9%) | 343 (89.7%) |
| Other ethnicity | 266 (13.0%) | 39 (10.3%) |
| Missing | 416 | 75 |
| **MTSS in <3 months\*** |  |  | X2=0.55p=0.46V=0.02 |
| Low | 2,062 (85.3%) | 375 (84.2%) |
| High | 356 14.7%) | 70 (15.8%) |
| Missing | 31 | 13 |
| **First cigarette after waking** |  |  | X2=17.31P<0.001V=0.08 |
| Within 5 minutes | 520 (22.0%) | 57 (21.6%) |
| 6-30 minutes | 683 (29.0%) | 55 (24.0%) |
| 31-60 minutes | 314 (13.3%) | 23 (8.9%) |
| More than 60 minutes | 841 (35.7%) | 134 (45.5%) |
| Missing | 91 | 23 |
| **Cigarettes per day** |  |  |  |
| 1-10 | 1414 (57.7%) | 325 (74.9%) | X2=34.57P<0.001V=0.12 |
| 11-20 | 808 (34.0%) | 101 (23.2%) |
| 21-30 | 95 (4.0%) | 4 (1%) |
| 30+ | 49 (2.1%) | 4 (0.9%) |
| Missing | 83 | 24 |
| 1Unweighted n = 2,681 |
| 2Chi-squared test with Rao & Scott's second-order correction, Cramer’s V  |

\*Percentages are computed as proportions of cigarette smoking within each characteristic, allowing comparison of the distribution of menthol vs other cigarette smoking; MTSS = Motivation to Stop Smoking; Social grade = occupational social grade (AB: higher and intermediate managerial, administrative and professional, C1: supervisory, clerical and junior managerial, administrative and professional, C2: skilled manual workers, D: semi-skilled and unskilled manual workers and E: state pensioners, casual and lowest-grade workers, unemployed with state benefits)

**Table S3: Source of purchase of menthol cigarettes (weighted data)**

| Source of purchase | Jul-Dec 20, N = 2491 (N (%)) | Jan – Jun 2021 N = 2091(N (%)) | Test statistics2 |
| --- | --- | --- | --- |
| Newsagent/off license/corner shop | 189 (75.8%) | 156 (74.6%) | Χ2=0.07, p=0.8 |
| Supermarket | 181 (72.5%) | 163 (78.2%) | Χ2=1.8, p=0.20 |
| Petrol garage shop | 130 (54.6) | 96 (46.0%) | Χ2=1.66, p=0.2 |
| Buy them from abroad and bring them back with me | 35 (14.2%) | 21.7 (10.4%) | Χ2=6.67, p=0.01 |
| Buy them cheap from friends | 31 (12.3%) | 9 (4.2%) | Χ2=8.73, p=0.005 |
| Newsagent/off license/corner shop (under the counter) | 30 (12.1%) | 10 (4.9%) | Χ2=1.70, p=0.014 |
| Cash and carry | 21 (8.6%) | 12 (6.0%) | Χ2=1.06, p=0.4 |
| People in the local area who are a ready supply of cheap cigarettes | 15 (6.0%) | 10 (4.6%) | Χ2=0.41, p=0.6 |
| Internet | 11 (4.6%) | 4 (2.1%) | Χ2=2.02, p=0.2 |
| Pub (behind the bar) | 8 (3.3%) | 3 (1.4%) | Χ2=1.7, p=0.2 |
| Pub (somebody who comes round selling cigarettes cheap) | 8 (3.3%) | 5 (2.3%) | Χ2=0.36, p=0.6 |
| People who sell cheap cigarettes on the street | 8 (3.2%) | 2 (0.9%) | Χ2=2.68, p=0.1 |
| Pub (vending machine) | 3 (1.2%) | 1 (0.6%) | Χ2=0.43, p=0.5 |
| 1Unweighted n = 4252Chi-squared test |  |  |

**Categorising source of purchase as ‘Any Illicit’ or ‘Not illicit’**

The any illicit purchase variable was coded as a response of ‘yes’ to any of the following variables:

1. Pub (somebody who comes round selling cigarettes cheap)
2. People who sell cheap cigarettes on the street
3. People in the local area who are a ready supply of cheap cigarettes
4. Buy them cheap from friends
5. Buy them from abroad and bring them back with me
6. Newsagent\Off license\Corner shop - ''under the counter''

**Table S4: purchase of menthol and just tobacco cigarettes, respectively, from ANY illicit source in July-October 2020 and November 2020-January 2021 (weighted data)**

| **Source of purchase (menthol)** | **Jul-Dec 20, N = 2491** **(N (%))** | **Jan-Jun 21, N = 2091****(N (%))** | **Test statistics3** |
| --- | --- | --- | --- |
| Any illicit | 75 (30.1%) | 37 (17.5%) | Χ2=9.12, p=0.006 |
| No illicit | 174 (69.9%) | 172 (82.5%) |
| - | - | - | - |
| **Source of purchase (Just tobacco)** | **Jul-Dec 20, N = 1,1612** **(N (%))** | **Jan-Jun 21, N = 1,2192****(N (%))** | **Test statistics2** |
| Any illicit | 265 (22.9%) | 230 (18.9%) | Χ2=5.29, p=0.03 |
| No illicit | 896 (77.1%) | 989 (81.1%) |
| 1Unweighted n (menthol) = 4252Unweighted n (just tobacco) = 21943Chi-squared test |  |