

Prevalence and patterns of different types of non-cigarette tobacco use in England: a population study

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Abstract

Introduction: Non-cigarette tobacco smoking increased in England between 2013 and 2023, but little is known about the prevalence of use of specific types of non-cigarette tobacco, including smokeless products, or whether the increasing trend has continued. This study examined recent trends in exclusive non-cigarette tobacco smoking and estimated the prevalence of different smoked and smokeless product use by sociodemographic characteristics, vaping status, and cigarette smoking status.

Methods: Data came from the Smoking Toolkit Study, a nationally representative monthly cross-sectional survey of adults (≥ 18 years) in England ($n = 94\,918$; April 2020 to February 2025). We used logistic regression to estimate trends in exclusive non-cigarette tobacco smoking. We further examined the prevalence and correlates of (non-exclusive) use of eight specific smoked and smokeless non-cigarette tobacco products among 8129 participants surveyed October 2024 to February 2025.

Results: The prevalence of exclusive non-cigarette tobacco smoking increased from 1.3% [1.1%–1.6%] in April 2020 to 2.0% [1.8%–2.1%] in August 2022, before declining to 1.2% [1.1%–1.5%] by February 2025. Between October 2024 and February 2025, 3.7% [3.2%–4.1%] of adults reported any non-cigarette tobacco use (~ 1.7 million people). Cigars (1.2%) and waterpipes (0.9%) were the most used products. Use patterns varied: cigars, cigarillos, and pipes were more common among men and those who smoked cigarettes, while waterpipes were more common among younger adults, minority ethnic groups, and people who vaped. Smokeless tobacco use was more common among those who smoked (any form of) tobacco.

Conclusions: In England, exclusive non-cigarette tobacco smoking has fluctuated in recent years. Patterns of smoked and smokeless tobacco use vary across products and sociodemographic groups.

Implications: These findings highlight the importance of tracking non-cigarette tobacco use in detail—clearly distinguishing between products, identifying the groups who use them, and understanding the extent to which they contribute to tobacco-related health inequalities. Some products are disproportionately used by specific groups, such as minority ethnic groups, who are not well served by existing stop-smoking services in England. Tailored interventions may be needed to reduce non-cigarette tobacco use, particularly among younger adults, minority ethnic groups, and those who also smoke cigarettes or use other nicotine products (eg, e-cigarettes).

Keywords non-cigarette tobacco, cigars, cigarillos, chewing tobacco, waterpipe, heated tobacco, heated tobacco products, HTP, other tobacco products, OTP

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Introduction

Tobacco use remains a leading cause of cancer and premature death.¹ While cigarette smoking is the most common form of tobacco used globally,¹ a wide range of non-cigarette tobacco products are also used. In England, cigarettes smoking remains most prevalent² and non-tobacco nicotine products like e-cigarettes and nicotine pouches are also widely available and popular.^{3,4} However, recent data suggest a notable rise in the use of non-cigarette smoked tobacco products (eg, cigars, cigarillos, waterpipes [shisha], and pipes), especially since 2020.² Additionally, some people use smokeless tobacco (eg, snuff and different forms of chewing tobacco like betel quid [paan] with tobacco leaf or tobacco leaf mixture [zarda], dry tobacco powder [gul, mishri], khaini, gutka, etc.), snus (which cannot legally be sold in the United Kingdom but is not illegal to consume), or heated tobacco products—and some use both smoked and smokeless forms. The health risks of non-cigarette tobacco use vary considerably from product to product—with smoked products generally more harmful—but all expose users to risk of harm.^{5–9} Understanding the current prevalence of different forms of non-cigarette tobacco use, and how this differs across sociodemographic groups and regions of England, is important for monitoring trends and developing targeted interventions to reduce use where needed.

Culture and ethnicity are related to the use of some non-cigarette tobacco products. For example, waterpipe tobacco is predominantly used among Arab/Middle Eastern communities in the United Kingdom and is used to socialize and express cultural identity.^{10–12} Smokeless tobacco products include snus (oral tobacco pouches) which is proportionally most used in Scandinavia¹³ (sale is banned in many jurisdictions including the United Kingdom) and chewing tobacco, which is primarily used by people from South Asia (predominantly among Indian, Pakistani, and Bangladeshi communities)¹⁴ with a range of different products used among different groups.¹⁵ Smokeless tobacco use is an important driver of inequality, causing higher rates of oral and pharyngeal cancers among South Asian ethnic groups compared with the general population in England.¹⁶ However, evidence suggests that minority ethnic groups and those aged 18–34 are more likely to underestimate the potential harms of non-cigarette tobacco products.¹⁷

Previous studies have reported descriptive data on non-cigarette tobacco use in England. For example, the International Tobacco Control (ITC) Survey found that among adults in 2020, the most commonly used smoked tobacco products (after cigarettes) were cigars, closely followed by waterpipes (shisha, hookah), pipes, and cigarillos.¹⁸ Among 16–19-year-olds in England, in 2023, cigarillos and waterpipe were the most popular tobacco products (after cigarettes), followed by cigars, smokeless tobacco, heated tobacco, and bidis.¹⁹ We recently published data from the Smoking Toolkit Study showing a substantial increase in estimates of exclusive use of any smoked non-cigarette tobacco products in England between 2020 and 2023, particularly among younger adults (eg, from 0.2% to 3.2% among 18-year-olds).² Similar patterns have been observed in other datasets (eg, the ITC Youth Survey), which show that, among youth in England, use of cigarillos has doubled since 2017, from 2.1% to 4.1% in 2023.¹⁹ HM Revenue and Customs figures also show increases in sales of cigars in the United Kingdom in recent years, from £73

million in 2019 to £165 million in 2024.²⁰ In the context of this changing landscape, more up-to-date information is needed on current patterns of use, considering each different type of smoked and smokeless products.

This study aimed to provide an update on recent trends in exclusive non-cigarette tobacco smoking in England. It also aimed to estimate the current prevalence of any (ie, non-exclusive) use of eight different smoked and smokeless non-cigarette tobacco products and how prevalence varies by sociodemographic characteristics, vaping status, and cigarette smoking status.

Methods

Pre-registration

The study protocol and analysis plan were pre-registered on Open Science Framework (<https://osf.io/7vhk5/>).

Design

Data were drawn from the Smoking Toolkit Study, an ongoing monthly cross-sectional survey of adults (≥ 16 years) in England.^{21,22} The study began in 2006 and is ongoing. Data were originally collected via face-to-face interviews, but data collection switched to telephone interviews from April 2020 onwards. The study uses a hybrid of random probability and simple quota sampling to select a new sample of approximately 1700 adults in England each month. Comparisons with other national surveys and sales data indicate that the survey achieves nationally representative estimates of key variables such as sociodemographic characteristics, smoking prevalence, and cigarette consumption.^{21,23}

The survey asks participants about their smoking status, which includes a response option that indicates exclusive non-cigarette tobacco smoking (ie, that the participant does not use cigarettes but uses some other form of smoked tobacco; see Measures section). Analyses of trends in the prevalence of exclusive non-cigarette tobacco smoking used data from those surveyed between April 2020 (the first wave to collect data via telephone, for consistency across the time series) and February 2025 (the most recent data available at the time of analysis).

Recently, we expanded the survey to include additional questions on the use of different smoked and smokeless non-cigarette tobacco products. Analyses of the current prevalence of specific forms of non-cigarette tobacco use used data from those surveyed between October 2024 and February 2025 (the only waves to include these questions).

Participants aged 16–17 years were not surveyed between April 2020 and December 2021. For all analyses, we therefore restricted the sample to participants aged ≥ 18 years (the legal age of sale of tobacco products in England) to ensure consistency across the time series for trend analyses. While tobacco use does occur among 16–17-year-olds, the sample size in this age group during the study period was too small to provide reliable estimates of underage use for the different non-cigarette products.

Measures

Full details of the measures are provided in the study protocol (<https://osf.io/7vhk5/>).

Smoking status

Smoking status was assessed by asking participants which of the following best applied to them: (a) I smoke cigarettes (including hand-rolled) every day; (b) I smoke cigarettes (including hand-rolled), but not every day; (c) I do not smoke cigarettes at all, but I do smoke tobacco of some kind (eg, pipe, cigar, or shisha); (d) I have stopped smoking completely in the last year; (e) I stopped smoking completely more than a year ago; (f) I have never been a smoker (ie, smoked for a year or more). Those who responded c were considered to exclusively smoke non-cigarette tobacco. For some analyses, we categorized responses as current tobacco smoking (a–c), former smoking (d–e), and never regular smoking (f).

Use of different non-cigarette tobacco products

We assessed the use of a range of smoked and smokeless tobacco products. Options for smoked products in the survey included pipes, cigars, cigarillos, waterpipes (commonly referred to as shisha, narghile, or hookah), and bidis. Options for smokeless products included snus; heated tobacco products; and other smokeless tobacco (chewing tobacco, paan, gutka, snuff, and dip). This analysis was restricted to tobacco-containing products. We have presented analyses of products containing nicotine but not tobacco (eg, e-cigarettes and pouches) elsewhere.^{eg, 4,24}

Use of heated tobacco products is assessed routinely in the survey within several questions that ask about use of a range of nicotine products. Those who currently smoked were asked “Do you regularly use any of the following in situations when you are not allowed to smoke?” and those who reported cutting down “Which, if any, of the following are you currently using to help you cut down the amount you smoke?”; those who had smoked in the past year were asked “Can I check, are you using any of the following either to help you stop smoking, to help you cut down or for any other reason at all?”; and those who had not smoked in the past year were asked “Can I check, are you using any of the following?”. Those who reported using a “heat-not-burn cigarette (e.g. IQOS with HEETS, heatsticks)” in response to any of these questions were considered to use heated tobacco products. The same questions were used to assess use of nicotine pouches; we used this variable in an unplanned analysis (see Statistical analysis section for details).

Use of other products was assessed via new questions included in the survey between October 2024 and February 2025. Those who did not report exclusive non-cigarette smoking (ie, responses a–b or d–f to the item assessing smoking status) were asked: “Can I check, are you using any of the following?” Participants were asked to select all that applied from the following options: “pipe,” “cigar,” “cigarillo,” “shisha/waterpipe/hookah,” “bidis,” “chewing tobacco/paan/gutka/snuff/dip,” “snus,” and “none of these.” For those who reported exclusive non-cigarette smoking (ie, response c), these response options were split across two questions. The first asked about the type(s) of combustible products they used: “Can I just check, which of the following tobacco products do you smoke?”, with response options: “pipe,” “cigar,” “cigarillo,” “shisha/waterpipe/hookah,” “bidis,” and “other.” The second asked whether they used any smokeless tobacco products: “Can I check, are you using any of the following?”, with response options: “chewing tobacco/paan/gutka/snuff/dip,” “snus,” “none

of these,” and “other.” For each of these questions, participants were asked to select all that applied.

Sociodemographic characteristics and vaping status

Sociodemographic characteristics included age, gender, socioeconomic position (indexed by occupational social grade), ethnicity, and region in England.

Age was analyzed as a continuous variable for trend analyses, modeled using restricted cubic splines (see Statistical analysis section). We also provided descriptive data by age group (18–29/30–64/ ≥ 65).

Gender was self-reported as man, woman, or in another way; the latter group were excluded from regression analyses by gender due to low numbers (mean [SD] n per wave = 12 [5]).

Occupational social grade was categorized as ABC1 (managerial, professional, and upper supervisory occupations) or C2DE (manual routine, semi-routine, lower supervisory, state pension, and long-term unemployed), using the National Readership Survey classification system.²⁵

Ethnicity was categorized according to the UK Census 2021 classification²⁶ as White (White British, White Irish, White Gypsy/Traveler, White Other), Black (Black African, Black Caribbean, Black Other), Asian (Asian Indian, Asian Pakistani, Asian Bangladeshi, Asian Chinese, Asian Other), Mixed or Multiple ethnicities (Mixed White/Black Caribbean, Mixed White/Black African, Mixed White/Asian, Mixed Other), or Other (Arab, Other). For regression analyses, we collapsed these categories to white or minority ethnic group due to low numbers in minority groups. Data on ethnicity were not collected between April and August 2020, so analyses by ethnicity excluded these waves.

Region was categorized as North (North West, North East, Yorkshire and the Humber), Midlands (West Midlands, East Midlands, East of England), or South (South West, South East, London). We also reported descriptive data on the prevalence of product use separately within each of the nine regions.

Vaping status was categorized as current versus other, assessed with the same series of questions used to assess heated tobacco use. Those who reported using an e-cigarette in response to any of these questions were considered to currently vape.

Statistical analysis

Data were analyzed using R v.4.4.2. The Smoking Toolkit Study uses raking to weight the sample to match the population in England. This profile is determined each month by combining data from the UK Census, the Office for National Statistics mid-year estimates, and the annual National Readership Survey.²¹ The following analyses used weighted data. We excluded participants who did not report their smoking status; missing data on other variables (Table S1) were excluded on a per-analysis basis.

Trends in exclusive non-cigarette tobacco smoking, 2020–2025

Consistent with our previous work,² we used binary logistic regression to model trends in exclusive non-cigarette tobacco smoking (ie, current tobacco smoking but no current cigarette smoking; coded 1 for those who selected response option (c) to the question assessing smoking status and 0 for all other responses) between April 2020 and February 2025, overall and by sociodemographic characteristics.

For the overall model, the dependent variable was exclusive non-cigarette tobacco smoking and the independent variable was time (survey wave), modeled using restricted cubic splines, to allow for flexible and nonlinear changes over time while avoiding categorization. We compared models with time analyzed using restricted cubic splines with three, four, and five knots (sufficient to accurately model trends across years without overfitting) using the Akaike Information Criterion (AIC). Three knots provided the best fitting model (AIC = 16 107 vs. 16 110 and 16 112 for four and five knots, respectively).

For models testing moderation of trends by age, gender, occupational social grade, ethnicity, region, and vaping status, we included the interaction between the moderator of interest and time—thus allowing for time trends to differ across subgroups. Each of the interactions was tested in a separate model, without adjustment for other variables. Age was modeled using restricted cubic splines with three knots (placed at the 5, 50, and 95% percentiles), to allow for a nonlinear relationship between age and exclusive non-cigarette tobacco smoking.

We used predicted estimates from these models to plot the prevalence of exclusive non-cigarette tobacco smoking over the study period, among all adults and within each subgroup of interest. We also reported modeled estimates of prevalence (with 95% CI) in April 2020 and February 2025 (the first and last months of the period), overall and within each subgroup.

Prevalence of any current use of different non-cigarette tobacco products, 2024/2025

Using data collected between October 2024 and February 2025 on specific products used, we reported the prevalence (aggregated across survey waves; with 95% CI) of any (ie, non-exclusive) current use of (i) any non-cigarette tobacco product, (ii) any smoked non-cigarette tobacco product, and (iii) any smokeless non-cigarette tobacco product. We then reported the specific prevalence of use of pipes, cigars, cigarillos, waterpipes (shisha/waterpipe/hookah), bidis, snus, heated tobacco products, and other smokeless tobacco (chewing tobacco/pan/gutka/s-nuff/dip). We reported estimates for all adults and stratified by sociodemographic characteristics, vaping status, and current cigarette smoking (yes/no; for analyses of smoked non-cigarette product use) or tobacco smoking status (current/former/never; for analyses of smokeless non-cigarette product use). We also reported the proportion (with 95% CI) of adults who dual used (i) cigarettes and non-cigarette smoked tobacco and (ii) smoked (including cigarettes) and smokeless tobacco products.

We then used binary logistic regression models to explore unadjusted and independent (adjusted for other potentially influencing factors) associations with product use. For each product category, we constructed models with use of the product as the dependent variable (coded 1 for those who reported using the product and 0 for those who did not) and age, gender, occupational social grade, ethnicity, region, vaping status, and current cigarette smoking (analyses of smoked products)/tobacco smoking status (analyses of smokeless products) as independent variables. Unadjusted models tested associations of product use with each independent variable separately. Adjusted models included all independent variables together, to determine the association of each variable after accounting for the others. There were no issues with multicollinearity (all variance inflation factors were < 2). We focus our discussion on independent associations, given word constraints.

In an unplanned (ie, not pre-registered) exploratory analysis, we analyzed unadjusted differences in use of snus between participants who did and did not report current use of tobacco-free nicotine pouches (assessed using the same questions used to capture use of heated tobacco products) to explore overlap and possible misreporting of pouch use as snus use.

Results

A total of 95 589 adults (≥ 18 years) in England responded to the survey between April 2020 and February 2025. We excluded 671 (0.7%) who did not report their smoking status, leaving a final sample of 94 918 participants for analyses of trends in exclusive non-cigarette tobacco smoking (non-exclusive use was not assessed before October 2024). Of these, 8129 were surveyed between October 2024 and February 2025 and formed the sample for descriptive analyses of the prevalence of use of eight different (smoked and smokeless) non-cigarette tobacco products. Characteristics of both samples are summarized in [Table S1](#).

Trends in exclusive non-cigarette tobacco smoking

[Figure 1](#) shows modeled time trends in the weighted proportion of adults reporting exclusive non-cigarette tobacco smoking between 2020 and 2025. [Table 1](#) shows modeled weighted prevalence estimates in the first and last months of the study period.

The prevalence of exclusive non-cigarette tobacco smoking followed a nonlinear trend ([Figure 1A](#)). It increased from 1.3% [1.1%–1.6%] in April 2020 to a high of 2.0% [1.8%–2.1%] in August 2022, then decreased to 1.2% [1.1%–1.5%] by February 2025. As a result, there was little overall change from the start to the end of the period ([Table 1](#)). This did not appear to be driven by changes in cigarette smoking; a similar pattern was observed among adults who smoked tobacco and among adults in general ([Figure S1](#)).

There were some subgroup differences ([Figure 1B–G](#)). Across the period, the prevalence of exclusive non-cigarette tobacco smoking was consistently higher among participants who were younger, men, from minority ethnic groups (in particular, mixed/multiple and other ethnicities), and those who reported current vaping. The increase and subsequent decline in prevalence were greatest among those who were younger and among those who reported current vaping. There were also differences by ethnicity, with no notable change over time among those from mixed/multiple and other ethnicities. Time trends were similar by gender, occupational social grade, and region. Across all population subgroups, there was no notable difference in prevalence in February 2025 compared with April 2020 ([Table 1](#)).

Prevalence of any current use of different non-cigarette tobacco products

[Table 2](#) shows the weighted prevalence of any (ie, non-exclusive) current use of (i) any, (ii) any smoked, and (iii) any smokeless non-cigarette tobacco product, among participants surveyed between October 2024 and February 2025 ($n = 8129$), overall and within population subgroups. [Table 3](#) shows the weighted prevalence of the eight specific smoked and smokeless non-cigarette products over this period. [Tables S2–S5](#) provide a more detailed

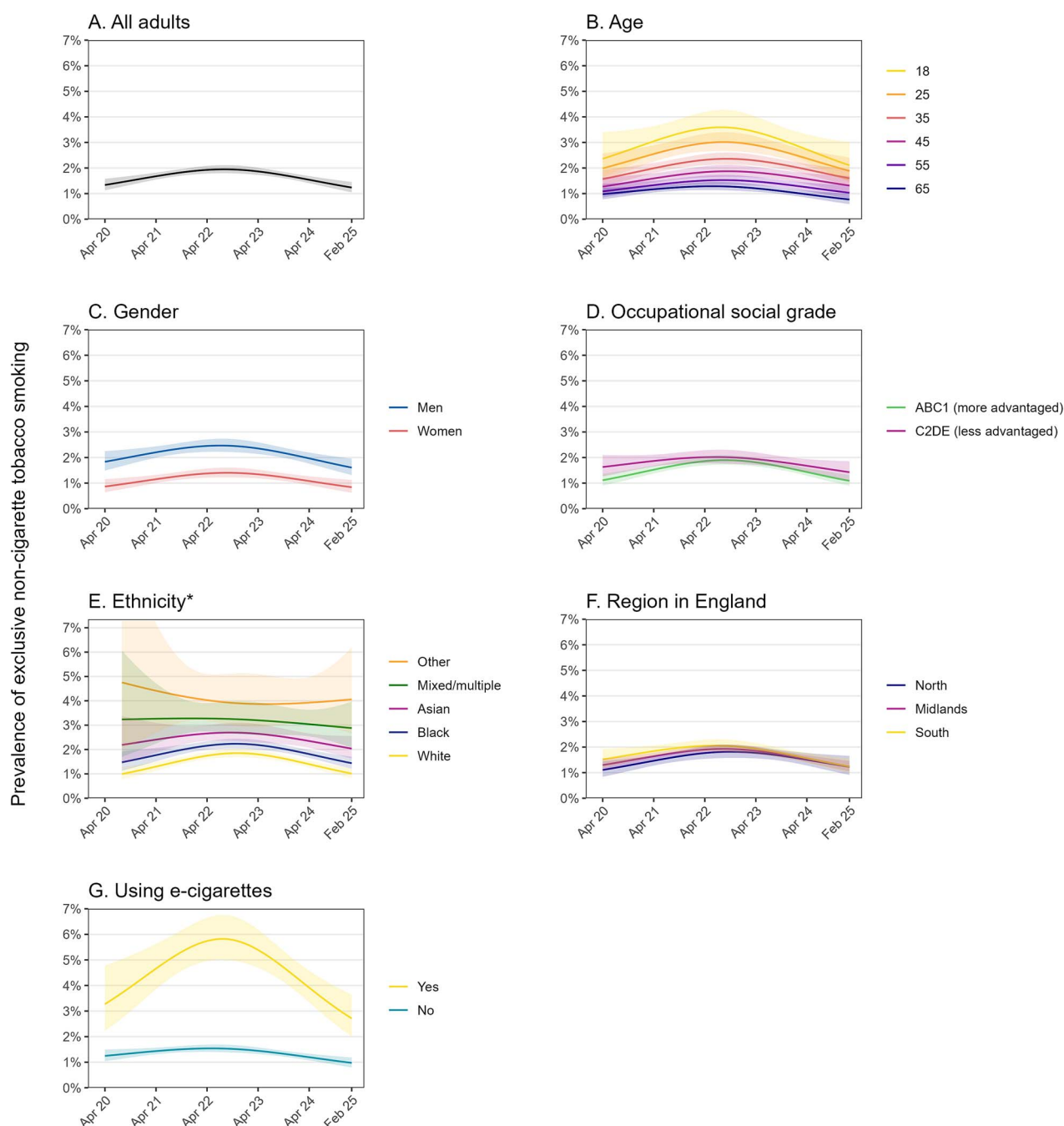


Figure 1 Trends in exclusive non-cigarette tobacco smoking, overall and within subgroups of adults in England, April 2020 to February 2025. Panels show trends (A) overall and by (B) age, (C) gender, (D) occupational social grade, (E) ethnicity, (F) region in England, and (G) vaping status. Lines represent modeled weighted prevalence by monthly survey wave, modeled nonlinearly using restricted cubic splines (three knots). Shaded bands represent 95% CIs. *Ethnicity was not assessed in April–August 2020; the model therefore used data from September 2020 to February 2025.

breakdown by ethnicity and region. Tables 4–5 show independent associations between current use of each product and age, gender, occupational social grade, ethnicity, region, vaping status, and cigarette smoking (for associations with smoked product use) or tobacco smoking status (for associations with smokeless product use); unadjusted associations are summarized in Tables S6–S7.

In total, between October 2024 and February 2025, 3.7% reported any current non-cigarette tobacco use, 2.6% reported any current non-cigarette tobacco smoking (ie, reported exclusive

non-cigarette tobacco smoking or any current use of cigars, cigarillos, pipes, waterpipe tobacco, or bidis), and 1.2% reported any current smokeless tobacco use (ie, any current use of snus, heated tobacco, or other smokeless tobacco) (Table 2). The prevalence of dual use of cigarettes and non-cigarette smoked tobacco was 1.2% [0.9%–1.4%]; this represented 34.6% [27.3%–41.9%] of those who used non-cigarette smoked tobacco. The prevalence of dual use of smoked and smokeless tobacco (including cigarettes) was 0.6% [0.4%–0.8%]; this represented 48.7% [37.6%–59.8%] of those who used smokeless tobacco.

Table 1 Modeled estimates of the prevalence of exclusive non-cigarette tobacco smoking among adults in England, April 2020 to February 2025 (*n* = 94 918).

Characteristic	Exclusive non-cigarette tobacco smoking, row % [95% CI] ^a	
	April 2020	February 2025
All adults	1.3 [1.1 to 1.6]	1.2 [1.1 to 1.5]
Age (years) ^b		
18	2.4 [1.6 to 3.4]	2.1 [1.5 to 3.0]
25	2.0 [1.5 to 2.6]	1.9 [1.5 to 2.4]
35	1.6 [1.3 to 1.9]	1.6 [1.3 to 1.9]
45	1.3 [1.0 to 1.6]	1.3 [1.0 to 1.7]
55	1.1 [0.8 to 1.4]	1.0 [0.8 to 1.3]
65	1.0 [0.8 to 1.2]	0.8 [0.6 to 1.0]
Age group (years) ^c		
18-29	2.1 [1.5 to 2.8]	1.9 [1.5 to 2.5]
30-64	1.3 [1.0 to 1.6]	1.3 [1.0 to 1.6]
≥65	0.9 [0.6 to 1.4]	0.5 [0.3 to 0.9]
Gender ^d		
Men	1.8 [1.5 to 2.2]	1.6 [1.3 to 2.0]
Women	0.9 [0.6 to 1.2]	0.8 [0.6 to 1.1]
Occupational social grade		
ABC1 (more advantaged)	1.1 [0.9 to 1.4]	1.1 [0.9 to 1.3]
C2DE (less advantaged)	1.6 [1.3 to 2.1]	1.4 [1.1 to 1.9]
Ethnicity ^e		
White	1.0 [0.8 to 1.3]	1.0 [0.8 to 1.2]
Black	1.5 [1.1 to 1.9]	1.4 [1.2 to 1.7]
Asian	2.2 [1.4 to 3.4]	2.0 [1.6 to 2.6]
Mixed/multiple	3.2 [1.7 to 6.1]	2.9 [2.1 to 4.0]
Other	4.8 [2.0 to 10.8]	4.1 [2.6 to 6.2]
Region in England		
North	1.1 [0.8 to 1.5]	1.2 [0.9 to 1.7]
Midlands	1.3 [1.1 to 1.5]	1.2 [1.0 to 1.5]
South	1.5 [1.2 to 1.9]	1.2 [1.0 to 1.6]
Vaping status		
Current vaping	3.3 [2.2 to 4.8]	2.7 [2.0 to 3.6]
Not	1.2 [1.0 to 1.5]	1.0 [0.8 to 1.2]

^aWeighted estimates of prevalence from logistic regression with survey month (April 2020–February 2025) modeled nonlinearly using restricted cubic splines. Note that data were modeled across this whole period; data reported here highlight the estimates in the first and last months. See Figure 1 for estimates in each month. The outcome is non-cigarette smoking exclusive of cigarette smoking (ie, excludes participants concurrently smoking cigarettes), rather than exclusive of smokeless tobacco use (ie, does not exclude participants concurrently using smokeless tobacco products). ^bNote that the model used to derive these estimates included data from participants of all ages, not only those who were aged exactly 18, 25, 35, 45, 55, or 65 years. ^cCalculated as the mean of modeled estimates for the ages in each age group. ^dExcludes 694 participants who described their gender in another way. Prevalence in this group aggregated across all survey months was 1.7% [1.6%–1.8%]. ^eEthnicity was not assessed in April–August 2020; the model therefore used data from September 2020 to February 2025.

The use of each individual non-cigarette tobacco product was relatively rare (Table 3). Cigars were the most popular smoked tobacco product, used by 1.2% of adults between October 2024 and February 2025 (98 participants), followed by waterpipes (0.9%; 77 participants), cigarillos (0.60%; 48 participants), pipes

(0.4%; 28 participants), and bidis (0.1%; 8 participants). Of the smokeless products, 0.6% (53 participants) reported using snus, 0.3% (21 participants) heated tobacco, and 0.4% (29 participants) other smokeless tobacco.

Despite the small numbers of users, we detected some independent differences in product use between population subgroups (Tables 2–5). Overall, the odds of using any non-cigarette tobacco product were higher among younger (vs. older) participants, men (vs. women), those from minority (vs. white) ethnic groups, those who reported current vaping (vs. not), and those who reported current cigarette smoking (vs. not). The same differences were observed when we looked specifically at use of smoked non-cigarette tobacco products, but patterns differed slightly for smokeless products: odds were higher among younger (vs. older) participants, men (vs. women), those who reported current vaping (vs. not), and those who reported current or former tobacco smoking (vs. having never regularly smoked), but did not differ significantly by ethnicity.

However, these patterns varied between specific products (Table 3, Table 5). The odds of using cigars, cigarillos, and pipes were higher among men (vs. women) and among those who reported current cigarette smoking (vs. not). The odds of using cigars were also higher among those who reported current vaping (vs. not) and the odds of using pipes were also higher among those in the North of England. The odds of using waterpipes were higher among younger (vs. older) participants, those from minority (vs. white) ethnic groups, and those who reported current vaping (vs. not). The odds of using snus were higher among younger (vs. older) participants, those from more (vs. less) advantaged social grades, and those who reported former tobacco smoking (vs. having never regularly smoked tobacco). Snus use was also much more common among those who reported current use of tobacco-free nicotine pouches than those who did not. The odds of using heated tobacco were higher among those who reported current (vs. never regular) tobacco smoking, while the odds of other smokeless tobacco use were higher among those who reported current or former (vs. never regular) tobacco smoking.

Discussion

The findings of this study provide up-to-date insights into patterns of non-cigarette tobacco use among adults in England and how they vary across different population subgroups.

The prevalence of exclusive non-cigarette tobacco smoking (ie, the proportion of adults who do not currently smoke cigarettes but use some other form of smoked tobacco) fluctuated over the study period, initially increasing between 2020 and 2022 before declining by 2025. This suggests that the rising trend in the exclusive use of non-cigarette smoked tobacco, particularly during the early 2020s, that we previously reported² has not been sustained. The reason for this uptick is not clear, but plausibly it may reflect increased experimentation during the COVID-19 pandemic period and associated lockdowns or post-pandemic socializing, while the later decline could indicate a return to pre-pandemic patterns or substitution with other nicotine products, such as vaping (which became much more popular in England from mid-2021 onwards⁴). Changes in use may also partly reflect tobacco industry marketing and pricing strategies, particularly given that non-cigarette tobacco products are not subject to some of the regulatory restrictions introduced in 2016 (eg, minimum pack size

Table 2 Prevalence of any (ie, non-exclusive) current use of non-cigarette tobacco among adults in England, October 2024–February 2025 (*n* = 8129; data aggregated across waves).

	Prevalence ^a , row % [95% CI]		
	Any non-cigarette tobacco product(s) ^{b,c}	Any smoked non-cigarette tobacco product(s) ^{c,d}	Any smokeless non-cigarette tobacco product(s) ^e
All adults	3.7 [3.2 to 4.1]	2.6 [2.2 to 3.0]	1.2 [1.0 to 1.5]
Age (years)			
18–29	7.6 [6.1 to 9.1]	4.0 [2.9 to 5.1]	4.0 [2.9 to 5.1]
30–64	3.2 [2.7 to 3.8]	2.7 [2.2 to 3.2]	0.7 [0.4 to 0.9]
≥65	1.4 [0.8 to 1.9]	1.1 [0.7 to 1.6]	0.3 [0.0 to 0.5]
Gender			
Men	5.1 [4.3 to 5.8]	3.7 [3.0 to 4.3]	1.7 [1.2 to 2.1]
Women	2.1 [1.6 to 2.6]	1.4 [1.0 to 1.9]	0.7 [0.4 to 1.0]
In another way	10.3 [2.9 to 17.7]	7.4 [1.0 to 13.7]	2.9 [0.0 to 7.1]
Occupational social grade			
ABC1 (more advantaged)	3.6 [3.1 to 4.2]	2.4 [2.0 to 2.8]	1.4 [1.0 to 1.7]
C2DE (less advantaged)	3.7 [2.9 to 4.5]	2.8 [2.1 to 3.5]	1.0 [0.6 to 1.5]
Ethnicity ^f			
White	3.3 [2.8 to 3.7]	2.3 [1.9 to 2.7]	1.1 [0.8 to 1.4]
Black	6.4 [3.8 to 8.9]	4.2 [2.2 to 6.2]	2.3 [0.7 to 3.9]
Asian	5.1 [3.0 to 7.2]	4.4 [2.4 to 6.3]	1.1 [0.1 to 2.1]
Mixed or multiple	5.3 [2.4 to 8.3]	3.5 [1.2 to 5.8]	2.2 [0.1 to 4.4]
Other	6.5 [1.9 to 11.1]	4.2 [0.2 to 8.1]	2.4 [0.0 to 4.8]
Region in England ^g			
North	3.9 [3.0 to 4.8]	3.1 [2.3 to 4.0]	1.1 [0.6 to 1.5]
Midlands	3.1 [2.3 to 3.9]	2.0 [1.4 to 2.6]	1.2 [0.7 to 1.7]
South	3.9 [3.2 to 4.6]	2.6 [2.1 to 3.2]	1.3 [0.9 to 1.7]
Vaping status			
Current vaping	10.0 [8.0 to 12.0]	6.9 [5.2 to 8.6]	3.8 [2.6 to 5.0]
Not	2.7 [2.2 to 3.1]	1.9 [1.6 to 2.3]	0.8 [0.6 to 1.1]
Smoking status			
Current smoking ^h	16.8 [14.4 to 19.1]	13.9 [11.8 to 16.1]	3.6 [2.4 to 4.8]
Cigarette smoking	9.4 [7.5 to 11.3]	6.3 [4.7 to 7.9]	3.9 [2.6 to 5.1]
Exclusive non-cigarette tobacco smoking	100 [100 to 100]	100 [100 to 100]	0.6 [0.0 to 1.8]
Former smoking	1.8 [1.2 to 2.4]	0.4 [0.2 to 0.7]	1.4 [0.9 to 2.0]
Never regularly smoked	1.0 [0.7 to 1.3]	0.6 [0.3 to 0.8]	0.5 [0.3 to 0.7]

^aPrevalence of any smoked and any smokeless product use do not necessarily sum to the prevalence of any product use because people can be dual users of smoked and smokeless products. ^bDefined as current use of pipes, cigars, cigarillos, waterpipes, bidis, snus, heated tobacco, or other smokeless tobacco. ^cAlso includes participants who reported (separately) that they did not currently smoke cigarettes but smoked some other form of tobacco. ^dAny current use of pipes, cigars, cigarillos, waterpipes, or bidis. ^eAny current use of snus, heated tobacco, or other smokeless tobacco. ^fEstimates by a more detailed ethnic breakdown are provided in Table S2. ^gEstimates within each region in the North, Midlands, and South are provided in Table S4. ^hCurrent smoking includes participants who reported smoking cigarettes or other tobacco products. Note: Empty cells indicate where no participants in the subgroup reported use of the product.

and flavor restrictions).²⁷ Notably, these fluctuations were most pronounced among younger adults and those who vaped, consistent with evidence that these groups are more likely to experiment with alternative tobacco forms.^{28,29}

Our previous analysis suggested prevalence of exclusive non-cigarette tobacco smoking rose sharply at the start of the pandemic,² so although current levels (2025: 1.2%) are now similar to the start of the pandemic, they remain higher than they were pre-pandemic (2013: 0.4%). In addition, these estimates only capture exclusive use: in recent survey waves, the prevalence of any versus exclusive non-cigarette tobacco smoking was around twice as high (2.6% vs. 1.2%). Including the use of smokeless tobacco products, we estimated the prevalence of any non-cigarette tobacco product

use in late 2024/early 2025 to be 3.7%. By comparison, recent prevalence estimates in the Smoking Toolkit Study were 13.8% for cigarette smoking, 13.0% for vaping, and 1.0% for nicotine pouch use.^{24,30,31} Extrapolated to the general population, this equates to approximately 1.7 million people (45.7 million adults ≥18 years in England³² × 3.7%) using any smoked or smokeless non-cigarette tobacco.

Although the overall use of specific non-cigarette tobacco products was relatively rare, we found evidence of sociodemographic clustering consistent with previous research.^{11,12,33} Cigars were the most commonly used smoked product, followed closely by waterpipes. Use of cigars, cigarillos, and pipes was more prevalent among men and those who currently smoke, reflecting traditional

Table 3 Prevalence of any (ie, non-exclusive) current use of different forms of non-cigarette tobacco among adults in England, October 2024–February 2025 ($n = 8129$; data aggregated across waves).

Prevalence, row % [95% CI]								
	Pipe	Cigar	Cigarillo	Waterpipe	Bidis	Snus	Heated tobacco	Other smokeless tobacco ^a
All adults	0.4 [0.2 to 0.5]	1.2 [0.9 to 1.4]	0.6 [0.4 to 0.8]	0.9 [0.7 to 1.2]	0.1 [0.0 to 0.2]	0.6 [0.5 to 0.8]	0.3 [0.1 to 0.4]	0.4 [0.2 to 0.6]
	0.4 [0.1 to 0.7]	1.7 [0.9 to 2.4]	0.9 [0.4 to 1.5]	2.3 [1.4 to 3.1]	0.3 [0.0 to 0.7]	2.6 [1.8 to 3.5]	0.5 [0.1 to 0.9]	1.1 [0.5 to 1.8]
	0.4 [0.1 to 0.6]	1.2 [0.9 to 1.5]	0.6 [0.3 to 0.8]	0.8 [0.5 to 1.1]	0.0 [0.0 to 0.1]	0.2 [0.1 to 0.3]	0.3 [0.1 to 0.4]	0.2 [0.1 to 0.4]
	0.3 [0.0 to 0.7]	0.7 [0.3 to 1.0]	0.3 [0.1 to 0.5]	0.1 [0.0 to 0.2]	0.1 [0.0 to 0.2]	0.0 [0.0 to 0.1]	0.1 [0.0 to 0.2]	0.2 [0.0 to 0.4]
	0.5 [0.2 to 0.7]	2.1 [1.7 to 2.6]	0.9 [0.5 to 1.2]	1.2 [0.8 to 1.6]	0.1 [0.0 to 0.2]	1.0 [0.6 to 1.3]	0.3 [0.1 to 0.4]	0.5 [0.3 to 0.8]
Age (years)	0.1 [0.0 to 0.3]	0.2 [0.0 to 0.3]	0.2 [0.1 to 0.4]	0.6 [0.4 to 0.8]	0.1 [0.0 to 0.3]	0.3 [0.1 to 0.4]	0.2 [0.1 to 0.4]	0.2 [0.0 to 0.3]
	2.9 [0.0 to 7.1]	2.9 [0.0 to 7.1]	2.9 [0.0 to 7.1]	4.4 [0.0 to 9.4]	–	–	–	2.9 [0.0 to 7.1]
	0.3 [0.2 to 0.5]	1.2 [0.9 to 1.5]	0.5 [0.3 to 0.7]	1.0 [0.7 to 1.2]	0.1 [0.0 to 0.3]	0.8 [0.6 to 1.1]	0.3 [0.2 to 0.5]	0.3 [0.1 to 0.5]
	0.4 [0.1 to 0.7]	1.1 [0.7 to 1.5]	0.7 [0.3 to 1.0]	0.9 [0.5 to 1.3]	0.1 [0.0 to 0.2]	0.4 [0.1 to 0.7]	0.2 [0.0 to 0.4]	0.5 [0.2 to 0.8]
	0.4 [0.2 to 0.6]	1.0 [0.8 to 1.3]	0.5 [0.3 to 0.7]	0.5 [0.3 to 0.7]	0.1 [0.0 to 0.2]	0.6 [0.4 to 0.8]	0.2 [0.1 to 0.4]	0.3 [0.2 to 0.5]
Ethnicity ^b	0.1 [0.0 to 0.3]	1.3 [0.2 to 2.4]	1.1 [0.1 to 2.1]	3.1 [1.3 to 4.9]	0.1 [0.0 to 0.3]	1.1 [0.2 to 2.0]	0.7 [0.0 to 1.6]	0.6 [0.0 to 1.7]
	–	1.8 [0.4 to 3.1]	0.6 [0.0 to 1.2]	3.8 [2.0 to 5.5]	–	0.9 [0.0 to 1.8]	0.2 [0.0 to 0.5]	0.1 [0.0 to 0.3]
	0.4 [0.0 to 1.2]	2.1 [0.3 to 3.8]	1.7 [0.0 to 3.5]	3.8 [1.5 to 6.1]	–	0.7 [0.0 to 1.6]	–	2.0 [0.0 to 4.0]
	–	1.7 [0.0 to 4.1]	1.4 [0.0 to 4.2]	3.6 [0.2 to 6.9]	–	1.0 [0.0 to 2.5]	0.5 [0.0 to 1.5]	0.9 [0.0 to 2.6]
	0.8 [0.3 to 1.3]	1.3 [0.8 to 1.8]	0.9 [0.4 to 1.4]	0.9 [0.5 to 1.3]	0.1 [0.0 to 0.3]	0.7 [0.3 to 1.0]	0.2 [0.0 to 0.3]	0.5 [0.1 to 0.8]
Region in England ^c	0.2 [0.0 to 0.4]	0.9 [0.5 to 1.4]	0.5 [0.2 to 0.8]	0.5 [0.2 to 0.7]	0.1 [0.0 to 0.2]	0.6 [0.3 to 1.0]	0.3 [0.1 to 0.5]	0.3 [0.0 to 0.5]
	0.2 [0.0 to 0.3]	1.2 [0.8 to 1.6]	0.5 [0.2 to 0.7]	1.3 [0.8 to 1.7]	0.1 [0.0 to 0.3]	0.6 [0.4 to 0.9]	0.3 [0.1 to 0.5]	0.5 [0.2 to 0.7]
	0.7 [0.2 to 1.3]	3.6 [2.4 to 4.8]	1.7 [0.9 to 2.6]	3.2 [2.0 to 4.4]	0.2 [0.0 to 0.5]	2.0 [1.1 to 2.9]	0.7 [0.2 to 1.2]	1.3 [0.5 to 2.1]
	0.3 [0.2 to 0.5]	0.8 [0.6 to 1.0]	0.4 [0.2 to 0.6]	0.6 [0.4 to 0.8]	0.1 [0.0 to 0.2]	0.4 [0.3 to 0.6]	0.2 [0.1 to 0.3]	0.3 [0.1 to 0.4]
	1.7 [0.9 to 2.5]	5.8 [4.4 to 7.2]	3.4 [2.3 to 4.5]	4.1 [2.9 to 5.3]	0.3 [0 to 0.6]	1.3 [0.6 to 1.9]	1.1 [0.5 to 1.8]	1.7 [0.8 to 2.5]
Smoking status	1.0 [0.4 to 1.6]	3.7 [2.5 to 4.8]	2.8 [1.7 to 3.9]	2.8 [1.7 to 3.9]	0.3 [0 to 0.7]	1.4 [0.7 to 2.1]	1.2 [0.5 to 1.9]	1.8 [0.9 to 2.7]
	9.7 [3.2 to 16.2]	30.4 [20.6 to 40.2]	10.3 [4.8 to 15.9]	19.0 [11.0 to 27.0]	–	–	0.6 [0.0 to 1.8]	–
	0.1 [0.0 to 0.2]	0.4 [0.1 to 0.6]	0.1 [0.0 to 0.2]	0.3 [0.1 to 0.5]	–	0.8 [0.4 to 1.3]	0.2 [0.0 to 0.4]	0.4 [0.1 to 0.7]
	0.1 [0.0 to 0.3]	0.3 [0.1 to 0.4]	0.1 [0.0 to 0.2]	0.4 [0.1 to 0.6]	0.1 [0 to 0.3]	0.4 [0.2 to 0.5]	0.0 [0.0 to 0.1]	0.1 [0.0 to 0.1]
	–	–	–	–	–	0.4 [0.2 to 0.5]	–	–
Current use	–	–	–	–	–	31.1 [19.3 to 42.8]	–	–

^aChewing tobacco, paan, gutka, snuff, and dip. ^bEstimates by a more detailed breakdown of ethnicity are provided in Table S3. ^cEstimates within each region in the North, Midlands, and South are provided in Table S5.^dCurrent smoking includes participants who reported smoking cigarettes or other tobacco products. Note: Empty cells indicate where no participants in the subgroup reported use of the product.

Table 4 Independent associations of any (ie, non-exclusive) current use of non-cigarette tobacco with sociodemographic characteristics, vaping status, and smoking status, October 2024–February 2025 (*n* = 8129; data aggregated across waves).

	OR _{adj} [95% CI]		
	Any non-cigarette tobacco product(s) ^{a,b}	Any smoked non-cigarette tobacco product(s) ^{b,c}	Any smokeless non-cigarette tobacco product(s) ^d
Age (years) [ref ≥65]			
18–29	3.67 [2.21 to 6.09]	2.06 [1.15 to 3.70]	13.1 [4.08 to 42.2]
30–64	1.75 [1.10 to 2.78]	1.72 [1.05 to 2.81]	1.83 [0.58 to 5.73]
Men [ref women]	2.34 [1.73 to 3.16]	2.47 [1.71 to 3.56]	2.12 [1.27 to 3.53]
Social grade C2DE [ref ABC1]	0.83 [0.62 to 1.12]	1.01 [0.72 to 1.42]	0.54 [0.33 to 0.90]
Minority ethnic group [ref white]	1.43 [1.02 to 2.02]	1.72 [1.15 to 2.57]	1.04 [0.57 to 1.88]
Region in England [ref North]			
Midlands	0.81 [0.56 to 1.19]	0.66 [0.43 to 1.03]	1.18 [0.63 to 2.22]
South	0.95 [0.68 to 1.32]	0.79 [0.54 to 1.16]	1.24 [0.71 to 2.18]
Current vaping [ref not]	2.72 [1.98 to 3.73]	2.85 [1.95 to 4.15]	1.82 [1.06 to 3.13]
Current cigarette smoking [ref not]	2.46 [1.80 to 3.38]	2.18 [1.51 to 3.16]	–
Smoking status [ref never regularly smoked]			
Former smoking	–	–	3.87 [1.96 to 7.62]
Current smoking ^e	–	–	5.67 [2.99 to 10.8]

Abbreviation: OR, odds ratio. ^aDefined as current use of pipes, cigars, cigarillos, waterpipes, bidis, snus, heated tobacco, or other smokeless tobacco. ^bAlso includes participants who reported (separately) that they did not currently smoke cigarettes but smoked some other form of tobacco. ^cAny current use of pipes, cigars, cigarillos, waterpipes, or bidis. ^dAny current use of snus, heated tobacco, or other smokeless tobacco. ^eCurrent smoking includes participants who reported smoking cigarettes or other tobacco products.

gendered patterns of tobacco use.³³ Use of waterpipes was more prevalent among younger adults, some minority ethnic groups, and those who vaped. These findings echo previous reports that waterpipe use is particularly appealing to young people and some minority ethnic communities^{11,12} due to its perceived lower harm and its integration into social and cultural practices—for instance, waterpipe use often occurs in group settings in bars, restaurants, and cafes.^{10,17,34} Bidis were rarely used, despite South Asians being among the largest UK ethnic minorities.

Among smokeless products, snus—a product that cannot legally be sold in the United Kingdom—was the most commonly used, followed by other forms of smokeless tobacco and heated tobacco products. Snus use was more prevalent among younger adults, those from more advantaged social grades, and people who formerly smoked tobacco. This may reflect experimentation with other nicotine products among those seeking (less harmful) alternatives to smoking³⁵ or crossover from users of tobacco-free nicotine pouches—as suggested by our exploratory analysis which showed higher prevalence of snus use among those who reported using pouches (nicotine pouches are also more popular among younger adults³). However, there may also have been some misreporting of tobacco-free nicotine pouch use as snus use, given the products are similar in appearance and method of use and nicotine pouches are sometimes referred to as “snus” or “white snus.”^{36,37}

As has been observed in other studies,³⁸ use of heated tobacco was more strongly associated with current smoking, suggesting that it may be used more commonly as a complement or transition product rather than a replacement. Heated tobacco products have been available in the United Kingdom for some time, but unlike e-cigarettes, they have not gained widespread traction.³⁹ This may reflect the fact that the UK government

has endorsed e-cigarettes—but not heated tobacco products—for smoking cessation. Industry efforts to market heated tobacco products separately from other tobacco products are ongoing.⁴⁰ Although it is possible that more people may transition from smoking to heated tobacco use over time, there is not strong evidence to suggest this has occurred yet.³⁸

Use of other smokeless tobacco products (eg, paan, gutka, snuff) was more prevalent among those who reported current or former smoking. However, while previous literature suggests that these products are more commonly used in South Asian communities,^{14,15} we did not detect differences in the use of other smokeless tobacco products by ethnicity, which may reflect this category encompassing a range of different products, the low prevalence of use in the analyzed sample, and the small numbers of participants from specific minority ethnic groups.

Key strengths of this study include the large, nationally representative sample and the granularity of product-specific data. The inclusion of both smoked and smokeless tobacco products allows for a comprehensive picture of tobacco use in England. However, there are also limitations. First, the reliance on self-reported data without verification by asking participants to display the product(s) they use may introduce some degree of reporting bias. As outlined above, some participants may have reported use of nicotine pouches as snus. Similarly, participants who use cigarillos may have reported this as cigar use, as cigarillos are commonly marketed as “little cigars,” or as cigarette use, given their close resemblance to cigarettes. Second, interviews were only conducted in English, so the sample may have excluded people who did not speak English as their first language or struggled to understand English over the telephone. This may particularly affect those from South Asian communities,⁴¹ which might explain why we did not detect anticipated differences in

Table 5 Independent associations of any (ie, non-exclusive) current use of different forms of non-cigarette tobacco with sociodemographic characteristics, vaping status, and smoking status.

	OR _{adj} [95% CI] ^a					
	Pipe	Cigar	Cigarillo	Waterpipe	Snus	Other smokeless tobacco ^a
Age (years) [ref ≥65]						
18–29	0.85 [0.26 to 2.83]	1.20 [0.54 to 2.66]	1.46 [0.47 to 4.54]	12.2 [1.60 to 92.8]	61.4 [7.55 to 499]	4.52 [0.61 to 42.8]
30–64	0.87 [0.29 to 2.64]	1.11 [0.59 to 2.10]	1.13 [0.45 to 2.85]	6.59 [0.87 to 49.7]	3.01 [0.36 to 25.3]	0.82 [0.15 to 4.61]
Men [ref women]	3.19 [1.07 to 9.52]	12.5 [4.84 to 32.4]	2.93 [1.25 to 6.86]	1.67 [0.97 to 2.88]	3.27 [1.64 to 6.51]	2.62 [0.96 to 7.12]
Social grade C2DE [ref ABC1]	1.34 [0.52 to 3.45]	0.67 [0.42 to 1.08]	0.88 [0.45 to 1.73]	0.66 [0.36 to 1.22]	0.37 [0.17 to 0.81]	1.20 [0.52 to 2.79]
Minority ethnic group [ref white]	0.16 [0.02 to 1.23]	1.51 [0.84 to 2.71]	1.97 [0.88 to 4.39]	6.66 [3.49 to 12.7]	0.79 [0.37 to 1.69]	1.39 [0.48 to 4.04]
Region in England [ref North]						
Midlands	0.22 [0.07 to 0.70]	0.82 [0.44 to 1.52]	0.67 [0.27 to 1.63]	0.48 [0.21 to 1.09]	1.08 [0.48 to 2.46]	0.46 [0.12 to 1.68]
South	0.21 [0.07 to 0.61]	0.91 [0.53 to 1.55]	0.49 [0.22 to 1.11]	1.10 [0.56 to 2.14]	0.86 [0.43 to 1.75]	0.94 [0.35 to 2.56]
Current vaping [ref not]	1.54 [0.53 to 4.47]	3.39 [2.03 to 5.64]	2.15 [0.99 to 4.65]	4.84 [2.39 to 9.80]	1.87 [0.85 to 4.11]	1.91 [0.78 to 4.66]
Current cigarette smoking [ref not]	1.83 [0.67 to 5.02]	3.41 [2.07 to 5.63]	11.0 [5.58 to 21.8]	2.81 [1.43 to 5.53]	–	–
Smoking status [ref never regularly smoked]						
Former smoking	–	–	–	–	3.25 [1.32 to 8.04]	5.36 [0.88 to 32.9]
Current smoking ^b	–	–	–	–	2.09 [0.92 to 4.71]	16.3 [3.83 to 69.3]

OR_{adj}, adjusted odds ratio. Each column presents data from a separate model with use of the stated product as the dependent variable and age, gender, occupational social grade, ethnicity, region, and cigarette smoking (for analyses of smoked tobacco product use) or smoking status (for analyses of smokeless tobacco product use) as independent variables. ^aChewing tobacco (eg, paan, gutka), snuff, and dip. ^bCurrent smoking includes participants who reported smoking cigarettes or other tobacco products. Note: Data are not reported on bidis due to the low number of participants who reported using them (*n* = 8).

product use by ethnicity and may have resulted in us underestimating the prevalence of use of certain products. Third, there were only a small number of users of each non-cigarette tobacco product between October 2024 and February 2025, resulting in imprecision in prevalence estimates (indicated by wide confidence intervals) and limited statistical power to detect subgroup differences. In addition, small numbers in minority ethnic groups meant that we lacked statistical power to examine differences between these groups. Further research with oversampling of minority ethnic groups would be useful to gain more insight. Fourth, the grouping of diverse smokeless tobacco products into a single category limited insights into the specific products being used by different population subgroups. Finally, we did not capture information on frequency or intensity of product use, which should be considered when interpreting our findings. Prevalence estimates may not align with sales data, as higher prevalence does not necessarily equate to higher sales volumes if users of certain products consume them less frequently.

Nonetheless, this study underscores the importance of monitoring non-cigarette tobacco use as part of broader tobacco control efforts. Collectively, non-cigarette tobacco products are used by approximately 1.7 million adults in England, many of whom do not smoke cigarettes so will not be captured by surveys that focus only on cigarette smoking (eg, the Annual Population Survey⁴²) or by tobacco cessation services and outreach programs. Further, rates are higher among specific subgroups—such as younger adults, men, minority ethnic groups, and those who currently smoke. Public health strategies should consider these disparities and ensure that messaging about the risks of non-cigarette tobacco use reaches all populations effectively to reduce tobacco-related health inequalities, and that stop-smoking services do not focus only on cigarettes but provide support for cessation of the wide range of tobacco products.

Including all tobacco products under tobacco control legislation is important, as millions of people use non-cigarette products that are harmful to health, and the tobacco industry may exploit regulatory gaps to undermine broader tobacco control efforts.²⁷ Given the evolving tobacco landscape in the United Kingdom, continued surveillance and research into the motivations for using non-cigarette tobacco products will be important for informing future policy and harm-reduction strategies. Monitoring should capture all products including those that are prohibited (eg, snus), account for both exclusive and co-use patterns as risks may differ, and consider capturing information on brands used and using visual aids or examples to clarify product categories to improve data quality and public understanding.

Supplementary material

Supplementary material is available at *Nicotine & Tobacco Research* online.

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Declaration of interests

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Author contributions

Sarah Jackson (Conceptualization [lead], Data curation [equal], Formal analysis [lead], Funding acquisition [lead], Investigation [equal], Methodology [equal], Visualization [lead], Writing—original draft [lead], Writing—review & editing [equal]), Eve Taylor (Investigation [equal], Methodology [equal], Writing—review & editing [equal]), Harry Tattan-Birch (Funding acquisition [supporting], Investigation [equal], Methodology [equal], Writing—review & editing [equal]), Katherine East (Funding acquisition [supporting], Investigation [equal], Methodology [equal], Writing—review & editing [equal]), Lion Shahab (Funding acquisition [supporting], Investigation [equal], Methodology [equal], Writing—review & editing [equal]), Sharon Cox (Funding acquisition [supporting], Investigation [supporting], Methodology [supporting], Writing—review & editing [equal]), Masuma Pervin Mishu (Funding acquisition [supporting], Investigation [supporting], Writing—review & editing [equal]), David Hammond (Funding acquisition [equal], Investigation [supporting], Methodology [supporting], Writing—review & editing [equal]), and Jamie Brown (Conceptualization [supporting], Data curation [equal], Funding acquisition [supporting], Investigation [equal], Methodology [equal], Writing—review & editing [equal]).

Data availability

The data use in these analyses are available on Open Science Framework (<https://osf.io/7vhk5/>), with age provided in bands to preserve anonymity.

Ethics approval

Ethical approval for the STS was granted originally by the UCL Ethics Committee (ID 0498/001). Participants provided informed consent to take part in the study, and all methods are carried out in accordance with relevant regulations. The data are not collected by UCL and are anonymized when received by UCL.

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