**Data**

The data on weekly spending on tobacco products comes from the Smoking Toolkit Study (STS) collected between April 2014 and February 2020. The spending figures are adjusted for inflation using the consumer price index (CPI) for tobacco products to December 2018 prices. Figure 1 presents the distribution of expenditures in the data, providing a self-reported median spend of £19.51 and mean spend of £23.81 per smoker per week for England as a whole.

Income data are obtained from the ONS at middle layer super output area (MSOA) level for the financial year ending March 2018. These data are aggregated to upper tier local authority level, by taking the population-weighted average, in order to estimate average tobacco spending as a proportion of income by local authority. The income figure used in all such calculations is net equivalised household income after housing costs. Data on smoking prevalence and the number of smokers by local authority are obtained from the Public Health England local tobacco control profiles for 2019 (Public Health England, 2020).

**Methods**

The estimated total annual expenditure based on the mean self-reported weekly expenditure on tobacco, and an estimated 6.131 million smokers in England, is £7.59 billion per year. This figure is below the total collected by the government in tobacco duty alone, receipts of which totalled £8.84 billion in the calendar year 2018 and £8.75 billion of which came from cigarettes and hand-rolling tobacco (HRT). To estimate the duty receipts specifically from spending by English smokers, we adjust the total duty receipts for the UK by the percentage of UK smokers who are English (calculated from the Annual Population Survey and estimated at approximately 82.25%). When making the England-only adjustment, total tobacco duty receipts from England are still estimated at £7.64 billion. This suggests the mean weekly expenditure figure of £23.81 is an under-estimate of the true mean due to under-reporting in the data. In order to produce mean weekly spending estimates from the toolkit data which are consistent with the amount implied by HMRC duty receipts, we therefore estimate an upshift factor to apply to the spending data.

To calculate the required upshift factor we estimate the total annual expenditure implied by the total duties received by HMRC and take the ratio of this figure to the estimate based on the raw toolkit data. We do this separately for factory-made cigarettes and hand-rolling tobacco (HRT). The approach for each product is to take the price (per pack of 20 cigarettes or per 100g of HRT) and calculate the total duty paid on the respective quantity – based on duty rates as at December 2018. The percentage of the market price which is paid as duty is calculated from these figures and applied to the duty receipts data to estimate total expenditure on (legally supplied) tobacco. Price data for cigarettes is obtained from the ONS and the December 2018 price of £10.63 for a pack of 20 cigarettes is used in the calculation. For HRT, price is taken as an average of online supermarket prices in December 2020 and deflated to December 2018 prices using the All-Tobacco component of the consumer prices index (CPI).

As some consumption of tobacco products is from illicit sources, we also estimate expenditure on illicit tobacco. HMRC estimate the “tax gap” which arises from the market for illicit tobacco. Using estimates from the 2016/17 tax year of the market shares of illicit and legal tobacco sources of total consumption by product, expenditures on illicit sources of consumption are calculated as the legal expenditure multiplied by the illicit market share as a proportion of the legal market share. For factory-made cigarettes this ratio is 0.15/0.81 = 0.185 and the equivalent for hand-rolled tobacco is 0.28/0.67 = 0.418. Note the remaining market share in each case relates to cross-border sourced tobacco and is excluded from the calculations of total spending.As the market shares are shares in consumption not expenditure, and prices per cigarette are lower for illicit sources, this figure is multiplied by the average illicit price as a proportion of the average legal price. The average cost of illicit sources of tobacco are approximately half of the average legal price for both factory-made cigarettes and hand-rolling tobacco (ASH Scotland, 2021).

Based on the above calculations, we multiply the survey responses by a factor of around 1.93 to account for underreporting of spend. The detailed breakdown of the upshift factor calculation is given in Table 1.

**Results**

**[Headline results – smoke free dividend estimates by region. Output a new tab to the summary spreadsheet based on the region tab]**

The impact on the most deprived becomes even more stark when spend on smoking is expressed as a percentage of income. Applying estimated spend to smoking populations calculated using ONS mid-year population estimates and smoking prevalence from the Annual Population Survey, an estimate can be made for different areas in England of the average weekly spend per smoker, the total spending on smoking in the locality and the percentage of a smoker’s net disposable income (after tax and housing costs) spent on tobacco products. Table 3 shows that the estimated weekly spend by region varies from **£29.38** in the Southwest to **£37.78** in the Northeast, which is **5.67%** and **7.48%** of the average income in these areas respectively. London has the lowest percentage of income spent on tobacco at **4.60%.**

As we look at smaller geographical areas such as local authorities (LAs) there is larger variation in both average weekly spending and the percentage of income spent on tobacco products.

**Discussion**

Over the past half century smoking has become increasingly concentrated in our most deprived communities and consequently, so too has the burden on health and wealth. Spending on tobacco is not a transaction entered into freely. Most smokers say that they want to quit and every year more than one in three make a serious attempt to quit. However, tobacco dependence makes this choice harder to implement and data show that nicotine dependence increases with age and deprivation. High rates of parental smoking not only make disadvantaged children sick, it keeps them poor, it blights their communities with premature mortality and sustained disability. It is beyond the scope of this report to estimate the enduring impact on local economies although what economists refer to as a multiplier effect seems likely.

What is evident is that making smoking obsolete would act as a highly targeted tax cut reaching precisely our most deprived families and communities making a material difference to household finances and local economies, releasing funds to families to spend on what matters to them most.

# **References**

ASH Scotland. (2021). *Calculating the cost of smoking.* Retrieved from https://www.ashscotland.org.uk/media/850413/28-calculating-the-cost-of-smoking-june-2021.pdf

Public Health England. (2020). *Local Tobacco Control Profiles*. Retrieved from https://fingertips.phe.org.uk/profile/tobacco-control

**Table 1) Calculation of the upshift factor.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| HMRC Stats | | | | | | |
| Cigarettes | | | Hand-Rolled | | | Totals (£m) |
| (1) Total duty receipts (£m) |  | 6,372 | (1) Total duty receipts (£m) |  | 1,188 |  |
| (2) Pack Price (£ per 20 cigs) |  | 10.63 | (2) Price per 100g (Dec 2020) |  | 51.60 |  |
| (3) Ad-Valorem tax rate |  | 0.165 | (3) Price deflator |  | 0.93 |  |
| (4) Ad-Valorem tax (£ per pack) | (2) \* (3) | 1.75 | (4) Price per 100g (Dec 2018) | (2) \* (3) | 47.90 |  |
| (5) Specific duty (£ per 1000 cigs) |  | 228.29 | (5) Specific duty (£ per kg) |  | 234.65 |  |
| (6) Specific duty (£ per pack) | (5) / 20 | 4.57 | (6) Specific duty (£ per 100g) | (5) / 10 | 23.46 |  |
| (7) Total excise (£ per pack) | (4) + (6) | 6.32 |  |  |  |  |
| (8) Total excise % of price | (7) / (2) | 59.45% | (8) Total excise % of price | (6) / (4) | 48.98% |  |
| (9) Total legal cigarette spend (£m) | (1) / (8) | 10719 | (9) Total legal HRT spend (£m) | (1) / (8) | 2425 |  |
| (10) Total illicit cigarette spend (£m) |  | 994 | (10) Total illicit HRT spend (£m) |  | 507 |  |
|  |  |  |  |  |  | 14,645 |
| Survey data estimate | | | | | | |
| Total grossed-up expenditure |  |  |  |  |  | 7,591 |
| Dataset : | Toolkit |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Upshift Factor: | 1.929 |  |  |  |  |  |

**Table 2) Mean Weekly Spending on Tobacco**

|  |  |  |  |
| --- | --- | --- | --- |
| Group | | Not Upshifted (£) | Upshifted\* (£) |
| All |  | £23.81 | £45.94 |
| Social Grade | ABC1 | £23.17 | £44.70 |
|  | C2DE | £24.21 | £46.71 |
| Sex | Male | £23.88 | £46.07 |
|  | Female | £23.74 | £45.79 |
| Age group | 16-24 | £18.39 | £35.47 |
|  | 25-34 | £22.94 | £44.26 |
|  | 34-44 | £24.98 | £48.20 |
|  | 45-54 | £26.15 | £50.44 |
|  | 55-64 | £26.48 | £51.09 |
|  | 65+ | £25.65 | £49.49 |
| Region | East Midlands | £24.51 | £47.29 |
|  | East of England | £24.10 | £46.49 |
|  | London | £23.48 | £45.29 |
|  | North East | £28.05 | £54.12 |
|  | North West | £24.11 | £46.50 |
|  | South East | £23.06 | £44.49 |
|  | South West | £20.41 | £39.37 |
|  | West Midlands | £24.73 | £47.71 |
|  | Yorkshire and the Humber | £24.33 | £46.93 |

*\*Upshift factor of 1.929 applied to raw spending data*

**Table 3) Smoke free dividend estimates by region**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Region | Spend per smoker (£) | Number of Smokers | Total Annual Spend (£m) | % of Income on Tobacco | Dividend (£m) |
| East Midlands | £47.29 | 566,850 | £1,394 | 8.69% | £1,306 |
| East of England | £46.49 | 669,833 | £1,619 | 8.07% | £1,518 |
| London | £45.29 | 896,639 | £2,112 | 7.47% | £1,979 |
| North East | £54.12 | 326,442 | £919 | 11.35% | £861 |
| North West | £46.50 | 837,814 | £2,026 | 9.58% | £1,899 |
| South East | £44.49 | 873,863 | £2,021 | 7.37% | £1,894 |
| South West | £39.37 | 631,799 | £1,294 | 7.40% | £1,212 |
| West Midlands | £47.71 | 650,297 | £1,613 | 9.65% | £1,512 |
| Yorkshire and the Humber | £46.93 | 677,670 | £1,654 | 9.40% | £1,550 |
|  |  |  |  |  |  |
|  |  | 6,131,207 | £14,652 |  | £13,731 |

**Figure 1) Distribution of Weekly Spending on Tobacco**

Diagram

Description automatically generated with medium confidence

**Extra Figures/Tables**

**Distribution of Weekly Spending by Region**

Chart

Description automatically generated