**Data and Methods**

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. To estimate the total annual spending on tobacco for England we multiply local authority-level average spending by the number of smokers in each authority and scale up from weekly to annual, and then sum up over all local authorities. The resulting estimated total expenditure based on these averaged self-reports is conservative as it implies a total spend of **£7.12 billion per year**. This figure is well below the total collected by the government in tobacco duty alone, receipts of which totalled **£9.29 billion in 2018/19**. 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 85%.

**[Paragraph here explaining the calculation of total (legal) expenditure from duty receipts]**

To produce weekly average spending estimates by local authority consistent with both the numbers of smokers in each authority and with total expenditures implied by HMRC duty receipts, we construct an upshift factor to apply to the survey data figures.

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 ***[ref]*** 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 ***[ref]***.

Based on the above calculations, we multiply the survey responses by a factor of **1.95** to account for underreporting of spend **[Note this is now up from earlier estimate of 1.57, lower than Howard Reeds estimate of about 2.5 for all UK using LCFS]**.

**Table 1 about here - calculation of the upshift factor.**

**Table 2 about here - calculation of mean/median weekly spending by subgroups.**

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 South West to **£37.78** in the North East, 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%.**

**Table 3 about here - table showing weekly spending, income, and percent of income by GOR**

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

**Figure 1 about here - scatterplot of percentage of income vs income**

Table 4. Expenditure on smoking in the local authorities with the highest tobacco expenditure as a proportion of income

Table 4 summarises tobacco expenditure in the LAs with the highest expenditure on tobacco as a proportion of income. We estimate that the LAs where smokers spend the highest proportion of their income on smoking are **Halton, Bolton, Oldham, Redcar & Cleveland, Salford, Wolverhampton, Middlesbrough, Stockport, Kingston upon Hull and Tameside. The LAs where the average smoker spends the lowest percentage of their household income on tobacco products are Kensington & Chelsea, Wandsworth, Westminster, Kingston upon Thames and Hammersmith & Fulham.**

In Halton the average smoker is estimated to spend almost 10% of their income on tobacco products, almost four times as much as in Kensington & Chelsea. This not only represents a heavy burden on the household budget, but because almost all the money spent flows directly out of the local economy, it places an additional burden on the community. By applying the average cost in each local authority by their estimated smoking population (8), we estimate that £47,198,000 is spent on tobacco products in Halton each year and that the dividend to the local economy of making smoking obsolete would be £43,894,000 each year. In Bolton, Salford, Stockport and Kingston upon Hull the smokefree dividend would be more than £75 million per year.

**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.

[Microsoft Word - 28 costs of smoking - June 2021 (ashscotland.org.uk)](https://www.ashscotland.org.uk/media/850413/28-calculating-the-cost-of-smoking-june-2021.pdf)

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

Diagram

Description automatically generated with medium confidence

**Extra Figures/Tables**

**Distribution of Spending by Region**

Chart

Description automatically generated