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Model-based Appraisal of the Potential Effects of Minimum Pricing for Tobacco in Wales

An analysis using the Sheffield Tobacco and Alcohol Policy Model v2.6.1

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Executive Summary

This report examines the potential contribution that a minimum price for tobacco could make towards achieving the aim set out in Welsh Government's Tobacco Control Strategy of making Wales "smoke-free" by 2030, defined as an overall smoking prevalence (the percentage of the population who smoke) of 5% or less. We appraise the potential effects of minimum pricing as a means to prevent sales below a specified price threshold and model the potential impact on the prevalence of tobacco consumption, health outcomes, and economic outcomes.

The report uses a modelling platform, the Sheffield Tobacco and Alcohol Policy Model, that was used recently by the University of Sheffield to produce a report for the Welsh Government on the potential effects of changes to the minimum unit price for alcohol in Wales. The model has also been used to model the effects of minimum pricing policies for both alcohol and tobacco in Scotland.

The report's objective is to explore the potential effects of four alternative minimum price thresholds for the whole tobacco market in 2026. The lower minimum price thresholds would affect hand-rolled tobacco only; these are £0.50, and £0.60 per stick, assuming 0.5g tobacco per hand-rolled cigarette. These thresholds would affect the price of all hand-rolled tobacco but not affect factory-made cigarette prices. The higher minimum price thresholds, £0.70 and £0.80 per stick, would affect both hand-rolled tobacco and factory-made cigarettes. Outcomes are estimated for smoking rates in the short and long-term and the long-term effects on health and healthcare costs, including potential savings to the National Health Service (NHS). The analysis also provides insights into the costs of smoking for people who smoke, including the variation in these costs by neighbourhood deprivation.

Findings:

- Minimum pricing is a potentially effective tool for increasing the price of the cheapest legal tobacco and could result in substantial reductions in smoking rates and consequent public health improvements. These health improvements would be larger for those living in deprived areas where smoking rates and related harms are highest.

- The average person who smokes in Wales currently smokes the equivalent of 75.5 sticks (cigarette or hand-rolled tobacco equivalent) per week. The average for people who smoke living in the most deprived fifth of areas (75.6 sticks per week) is almost identical to the average for everyone who smokes.

- The average person who smokes in Wales currently spends £40.64 per week on tobacco. People who smoke living in the most deprived fifth of areas spend an average of £38.73 per week.

- The cheapest legal tobacco is hand-rolled tobacco. The £0.50 and £0.60 minimum prices would only affect the prices of hand-rolled tobacco. These are estimated to cause reductions in smoking prevalence in the first year of policy implementation of 0.1% points (263 fewer people who smoke) and 0.2% points (526 fewer people who smoke) respectively and increase average spending on tobacco for people who continue to smoke by £2.92 and £5.26 per week from a baseline of £40.64.

- The £0.70 and £0.80 minimum prices would affect the prices of both hand-rolled tobacco and factory-made cigarettes. We estimated that they would cause reductions in smoking prevalence in the year of policy implementation of 0.4% (1,053 fewer people who smoke), and 0.6% (1,579 fewer people who smoke), and increase average spending on tobacco for people who continue to smoke by £7.55, and £9.81 per week.

- The change in smoking prevalence is much larger for people living in the most deprived neighbourhoods, with a reduction of 0.2% in smoking prevalence in the least deprived areas of Wales compared to a 0.7% reduction in the most deprived areas.

- Policy effects are found to diminish over time, with the impact of the £0.50 minimum price on overall prevalence falling from 0.1% to almost zero between 2026 and 2030, and for a £0.60 the impact on prevalence falls from a reduction of 0.2% to 0.1% between 2026 and 2030.

- Through reducing smoking prevalence by raising the price of the cheapest tobacco, minimum pricing for tobacco is estimated to improve population health. A £0.60 minimum price is estimated to reduce smoking-attributable hospital admissions by 929 and save 2,956 life-years over a 20-year period. The range of estimated reductions in hospital admissions is from 362 (£0.50 minimum price) to 2,832 (£0.80 minimum price). For life-years saved, the range is 1,158 saved (£0.50) to 8,808 (£0.80).

- Of these life-years saved, over a third (1,119) are from the one fifth of the population living in the most deprived areas – thus the policy substantially reduces inequalities in mortality.

- An important consequence that decision-makers should be aware of is that minimum pricing could increase revenue for retailers and the tobacco industry. This is because minimum pricing is not a tax, and the additional money consumers pay for their products largely goes to retailers and may feed through to the wider industry.

- While central government would gain additional revenue from VAT due to higher tobacco prices, this is more than offset by the reduction in receipts of tobacco excise duty from reduced spending on tobacco by consumers.

Summary:

The model-based findings presented in this report show how minimum pricing for tobacco is estimated to reduce smoking prevalence and improve public health in Wales. This would be achieved by removing tobacco sold below a minimum price threshold from the market. This would limit the tobacco industry's ability to maintain relatively cheap tobacco on the market. A minimum price for tobacco would complement continued tobacco excise tax increases by the UK Government by preventing the industry undermining their effects by reducing profit margins on already relatively cheap tobacco. Minimum pricing would also generate additional tobacco industry revenue, but this could be mitigated with additional policy

approaches that reduce tobacco consumption and limit industry profits. However, illicit (untaxed) tobacco would remain far cheaper than any minimum price threshold for legally sold tobacco, requiring initiatives to reduce the demand for and supply of illicit tobacco to get the full public health benefits.

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Model-based Appraisal of the Potential Effects of Minimum Pricing for Tobacco in Wales

1. Introduction

Tobacco use is a major contributor to health issues, premature death, and health inequalities in Wales, with approximately 10.7% of all deaths amongst those aged 35 and over linked to smoking and 3.4% of all hospital admissions[1]. This burden is not evenly distributed across the population, with 14.5% of deaths in the most deprived fifth of local areas in Wales attributable to smoking compared to 7.7% in the least deprived fifth[1]. Approximately 13% of Welsh adults smoke tobacco, and 4% of adolescents in Wales smoke at least weekly as of 2022[2].

The Welsh Government has set a clear objective for Wales to be "smoke-free" by 2030, which is defined as having a smoking prevalence (the percentage of the population who smoke tobacco) of less than 5% [2]. Policies that increase the cost of tobacco, especially those that make the cheapest tobacco less affordable, are an effective means of reducing smoking rates [3, 4]. Raising tobacco prices achieves this by dissuading young people from starting smoking and encouraging people who currently smoke to contemplate quitting or providing them with added motivation to do so. In England, the cost of tobacco is an important factor in motivating people to quit smoking [5]. In the United Kingdom (UK), excise duties are set centrally by the UK Government. However, minimum pricing is a policy option available to devolved governments within the UK to raise the price of the relatively cheapest legally sold

products to discourage consumption and improve public health and has been implemented independently in both Wales and Scotland in the case of alcohol.

Existing evidence regarding the potential impacts of minimum pricing for tobacco primarily comes from the United States[6-14]. This evidence shows that implementing a minimum pack price can increase the cost of the least expensive tobacco products and, as a result, reduce the number of people who smoke[6]. In 2019, a UK survey of adults who currently smoke or used to smoke indicated that in response to a hypothetical minimum price for tobacco, approximately a fifth of people who currently smoke would smoke less or quit and almost two-fifths of people who used to smoke indicated the price rise would help them to stay quit[15].

Recent analysis using the Sheffield Tobacco and Alcohol Policy Model (STAPM) for Scotland[16, 17] found that a minimum price for tobacco would lead to reduced prevalence of smoking and improvements in public health by reducing tobacco-related hospitalisations and mortality. Such a policy would, however, also lead to increased spending on tobacco by those who continued to smoke and increased revenues to tobacco retailers and the wider tobacco industry, while reducing UK Government tax revenue from tobacco excise tax receipts and VAT.

1.1. The Current UK Policy Approach

The current policy approach to influencing the price of tobacco products in the UK is through tobacco duty, set by the UK Government (

Table 1). For hand-rolled tobacco the duty is a set amount per kilogram of tobacco. The duty for factory-made cigarettes has three components. The first component is an ad-valorem component which is a percentage of the retail price. This is added to the second component, specific duty, which is a set amount per 1,000 cigarettes.

Table 1. Tobacco duty rates as of 31st October 2025

	Specific duty rate	Ad-valorem duty rate	Minimum excise tax
Factory-made cigarettes	£334.58 per 1,000 cigarettes	16.5% of RRP	£446.67 per 1,000 cigarettes
Hand-rolled tobacco	£476.83 per kg	N/A	N/A

Notes: *Recommended Retail Price (RRP)

In 2017, the UK government introduced the minimum excise tax (MET), which established a minimum level of excise duty that must be paid on factory-made cigarettes [18]. The MET, like the specific duty, is also a fixed amount per 1,000 cigarettes. The sum of ad-valorem and specific duty is compared to the MET, and the duty payable is the higher amount. Essentially, this policy aims to function as a type of minimum price for factory-made cigarettes. The policy creates a situation in which, if the tobacco industry wishes to sell cigarettes at a such a cheap price that would mean that the duty payable is below the MET threshold, then they have to pay an additional MET tax. The MET tax is paid directly to the UK Government rather than being added to the price of the cigarettes. The evidence suggests that when the MET was first introduced, it did function effectively as a minimum price for cigarettes [18]. However, more recently cigarettes are being sold at prices cheap enough that the tax payable is below the MET threshold. In addition, it is important to note that the MET has no impact on the cost of hand-rolling tobacco as it is only applied to factory-made cigarettes.

We can observe in practice the effectiveness of the MET at imposing a floor price preventing the ability of industry to sell cheap factory-made cigarettes. The duty rates for factory-made cigarettes in May 2024 were 16.5% of the recommended retail price (RRP) plus £316.70 per 1,000 cigarettes, with a MET of £422.80 per 1,000 cigarettes. As an average per pack of 20 cigarettes, this is calculated as 0.165 × RRP plus specific duty of £6.334 (20 * £316.70/1000), with a MET of £8.46 per pack of 20 (20 * £422.80/1000).

The RRP where 0.165 × RRP + 6.334 = £8.46 is therefore the lowest RRP that can be set where the sum of ad-valorem and specific duty would cover the MET. If the RRP is reduced below this price, excise duty payable remains the same because of the MET, reducing profitability per pack. This RRP is £12.861 per pack of 20 cigarettes, or 64.3p per cigarette. A search of the Tesco website on 09/05/2024 resulted in 30 products priced at less than 64p per cigarette, with prices as low as 56p. At both 64p and 56p, the total excise duty payable will be £8.46 per pack, or 42p per cigarette, therefore pricing below 64p means industry accepting a reduction in their net revenue per stick. The existence of prices in the market below the price which meets the MET thresholds indicates that industry sees a strategic advantage in doing so, despite reduced revenues from those products.

Industry may be incentivised to price below the MET threshold to maintain the existence of cheaper tobacco products and retain customers who may otherwise quit smoking altogether. The existence of a MET threshold does not, therefore, entirely prevent the tobacco industry making some of its factory-made cigarette products available at cheap prices and is not applied at all to the cheaper hand-rolled tobacco. A minimum price for tobacco would effectively raise the prices of the cheapest tobacco by setting a legally binding minimum retail price, as is the case with minimum unit pricing in the context of alcohol in Scotland and Wales.

1.2 Aims

The aim of this report is to provide an appraisal of the potential effects of minimum pricing for tobacco in Wales, in terms of its impact on rates of tobacco smoking and on health and economic outcomes related to tobacco. It uses the Tobacco and Alcohol Tax and Price Intervention Simulation Model (TAX-sim), which is built on the Sheffield Tobacco and Alcohol Policy Modelling platform (STAPM). The TAX-sim model can simulate tax and price policies for alcohol and tobacco, either separately or jointly. It has previously been used to model the potential impact of changes to the minimum unit price for alcohol in both Wales[19] and Scotland[20], as well as potential minimum pricing for tobacco in Scotland[16, 17]. In this investigation, the model was exclusively used to examine the impact of price changes on tobacco, with no exploration of changes in alcohol pricing policy or any indirect effects on alcohol consumption.

2. Methods

2.1. The TAX-sim Model

The model is a dynamic micro-simulation that creates a synthetic population based primarily on data from the National Survey for Wales (NSW)[21] to represent tobacco consumption in the Welsh population (see the technical description of the tobacco component of the STAPM modelling for details[22]). It incorporates trends in smoking prevalence and the average amount of cigarettes smoked per day across age, sex and Welsh Index of Multiple Deprivation (WIMD) quintiles. The WIMD is a composite measure based on various indicators like income, employment, education, housing, and more, calculated for small geographic areas in Wales, each representing approximately 1,500 people[23]. These WIMD scores are divided into quintiles, with the first quintile representing the least deprived areas and the fifth quintile representing the most deprived ones.

The simulation advances in one-year increments until a predefined time limit is reached, which in this case is the year 2043. In each time-step, new individuals are introduced into the model at the age of 18, while individuals exit the model when they either die or reach the maximum age limit of 89.

The model operates by simulating the dynamics of smoking and its impact on tobacco expenditure and health in terms of rates of mortality and morbidity from smoking-related diseases[24]. It tracks how individuals move through three different smoking states as they age in one-year intervals: people who have never smoked, people who currently smoke, and people who formerly smoked for a specified number of years since quitting. It then associates these states with mortality and morbidity rates. Overall trends in smoking prevalence are influenced by rates of initiation of smoking at young ages (under 30 years), quitting, relapses, and premature mortality linked to smoking.

For people who currently smoke, changes in the average number of cigarettes smoked per day as they age are simulated by keeping them at the same percentile of smoking amount, but adjusting the amount smoked that corresponds to each percentile based on different reference distributions for each age. These distributions vary by sex and WIMD quintile and are estimated from the baseline population sample. Thus, people who smoke follow a personalised smoking trajectory over time. For those who initiate or relapse back to smoking, the number of cigarettes they smoke is determined by sampling from the distribution specific to their age, sex and WIMD quintile. Although the model does not link individual smoking amounts to health outcomes, it uses this information to estimate tobacco expenditure outcomes.

Trends in smoking prevalence are associated with rates of mortality and hospital admission from 52 tobacco-related diseases among adults who smoke, derived from reviews of the literature[24]. The model also incorporates evidence on the time lag between quitting smoking and changes in disease risk, which can be immediate for some conditions but may take decades for others, such as certain types of cancer[24]. The mortality and hospitalisation rates for each of the 52 tobacco-related diseases are calculated separately by age, sex, and WIMD quintile, based on data provided by Digital Health and Care Wales. The rates and unit costs of hospitalisations are estimated using the same methods as our recent reports on alcohol minimum unit

pricing[19, 20]. Unit costs of hospital admissions were estimated from English data and inflated to correspond to a price year of 2023/24.

The model provides estimates for various outcomes, including (i) consumption outcomes such as smoking prevalence and weekly spending on tobacco products, (ii) health outcomes, which encompass years of life lost (YLLs) due to premature death, hospitalisations from tobacco-related conditions, and the National Health Service (NHS) costs of those hospitalisations, and (iii) economic outcomes – mean prices paid, the distribution of all prices paid, total annual consumer spending on tobacco, UK Government tax revenues from tobacco duty and VAT, and retailer/industry revenue.

The approach of the STAPM TAX-sim model is to estimate a control (or "business as usual") arm against which each intervention is compared. All models start in the year 2022, and we assume any policy interventions are introduced in 2026, with the model being run for a further 20 years, until 2046, to allow for an assessment of the long-term impacts of the policy. The "policy effect year" 2026 is therefore the first year in which the intervention arm (in which policies are changed) deviates from the control arm (in which policies are assumed to remain constant). Tobacco duty structures in the control arm are assumed to remain the same after 2025, with duty rates unchanged in real terms from their 2025 values (as set in the 2024 Autumn Budget) through the model's duration. The only exception to this is that we assume that the tobacco duty escalator, in which tobacco duty is increased each year by a certain percentage above RPI inflation. In this case, it is assumed to continue at the level of 2% above inflation for both factory-made cigarettes and hand-rolling tobacco. Note that in the previous two UK government fiscal events (November 2023 and October 2024) there was a 12% above inflation rise in duty for hand-rolling tobacco. We assume in future years of the model this will return to a "business-as-usual" increase of 2% above inflation in line with factory-made cigarettes – as was the case in the 2025 Budget[25].

Policy measures can influence tobacco consumption in several ways. They can stop individuals who would have started smoking from doing so or prompt people who currently smoke to quit. Additionally, they can reduce the amount of tobacco consumed by people who currently smoke. These effects persist in subsequent years within the model through the following mechanisms:

1. Adjusting the tobacco consumption of new 18-year-olds annually to reflect the policy impact.

2. Individuals who change to not smoking due to the policy may, over time, change their smoking status back and forth to smoking due to the dynamic simulation of age-related changes in tobacco use via initiation, quitting and relapse. This could lead them to start smoking again, and they may subsequently quit again.

3. For individuals who keep smoking, the policy effect may shift an individual to a different percentile in the population distribution of tobacco consumption, i.e. changing the average number of cigarettes they smoke per day relative to people who smoke in the control arm. Their subsequent life-course of tobacco consumption will then follow a different trajectory, corresponding to their new position in the distribution.

2.2. Consumer Responses to Price Changes: Price Elasticities of Demand for Tobacco

The estimated policy effects depend strongly on the assumptions about how consumers will respond to price rises, as estimated by the price elasticities of demand for tobacco. This report incorporates evidence on the potential responses of consumers in the UK to changes in tobacco prices, and on the extent to which changes

in the price of hand-rolling tobacco could affect demand for factory-made cigarettes and vice versa.

The "own-price elasticity of demand" measures the percentage change in demand for a specific product resulting from a 1% increase in its price. For instance, if the own-price elasticity of demand for factory-made cigarettes is –0.5, a 1% price increase would lead to a 0.5% drop in demand. This means consumers would buy fewer cigarettes but pay more for them overall. To illustrate, suppose 1,000 people initially bought a packet of 20 cigarettes each for £15.00. This would result in 20,000 cigarettes being sold at a total cost of £300,000. If the price increased by 1% to £15.15, then under a price elasticity of demand of –0.5 we would expect 19,900 cigarettes (i.e. 0.5% fewer) to be sold. However, the total cost would rise to £301,485.

Estimates from the University of Sheffield by Pryce and co-authors show that hand-rolling tobacco and factory-made cigarettes have different own-price elasticities of demand[26]. These estimates are divided into two parts: the impact of price on whether someone decides to buy a product, termed "participation" (Table 2), and, if they do buy, how much they purchase, termed "conditional consumption" (

Table 3).

Table 2 Participation price elasticities of demand from Pryce et al. These indicate the proportional change in the probability that someone will consume a product or not in response to a rise in product price

		Consumption change	
		Cigarettes	Hand-rolled tobacco
Price change	Cigarettes	–0.169***	–0.135
	Hand-rolled tobacco	–0.080	–0.089*

*Stars indicate the statistical significance of the elasticity; * p < 0.1, ** p < 0.05, *** p < 0.01*

Table 3 Conditional consumption price elasticities of demand from Pryce et al. These indicate the proportional change in the amount of a product that people who consume at least some of it consume on average each day in response to a rise in product price.

		Consumption change	
		Cigarettes	Hand-rolled tobacco
Price change	Cigarettes	−0.513***	−0.222
	Hand-rolled tobacco	−0.080	−0.226*

*Stars indicate the statistical significance of the elasticity; * p < 0.1, ** p < 0.05, *** p < 0.01*

We also calculate how consumer demand for factory-made cigarettes might respond to price increases in hand-rolling tobacco, and vice versa. These are known as the "cross-price elasticities of demand". The University of Sheffield estimates show that a price increase in either factory-made cigarettes or hand-rolling tobacco leads to a decrease in demand for the other product[26]. This suggests that factory-made cigarettes and hand-rolling tobacco are complementary products: when the price of one goes up, demand for both decreases e.g. the elasticities in Table 3 mean that a 1% increase in the price of hand-rolled tobacco will decrease consumption of factory-made cigarettes by smokers by 0.08%.

It is important to note the uncertainties about how price changes in one product affect consumption of the other. The statistical uncertainty in the Pryce et al. cross-price elasticity estimates is wide enough to indicate a less likely, but possible, scenario where the two products could be substitutes. There is also evidence suggesting that hand-rolling tobacco can act as a substitute for factory-made cigarettes when prices rise[27]. The Office for Budget Responsibility (OBR) recently published new tobacco price elasticities of demand estimated by HMRC, including estimates of the cross-price elasticity between factory-made cigarettes and HRT[28]. The HMRC analysis found

positive cross-price elasticities between factory-made cigarettes and hand-rolled tobacco, suggesting the two products are substitutes.

In the case of factory-made cigarettes and hand-rolled tobacco being substitutes (positive cross-price elasticities), the impact of raising the price of hand-rolled tobacco would be to increase consumption of factory-made cigarettes, partially offsetting some of the potential decrease in smoking prevalence from increasing the price of cheaper hand-rolled tobacco. Conversely, if the products are complements, the impact of raising the price of hand-rolled tobacco would be to decrease consumption of factory-made cigarettes, magnifying the potential decrease in smoking prevalence.

In our model base case we use the Pryce et al. elasticities in Table 2 and

Table 3, with the cross-price elasticities set equal to zero, to reflect the high degree of statistical uncertainty around the cross-price effects. As both sets of cross-price elasticities between factory-made cigarettes and HRT are negative, setting them equal to zero produces a more conservative estimate of the impact of price rises on reductions in smoking prevalence. To illustrate the impact of this uncertainty, we also present a sensitivity analysis of our results for impacts on smoking prevalence when the cross-price effects are included. In our sensitivity analyses which do not set the

cross-price elasticities equal to zero, individuals may quit smoking both products if the price of hand-rolled tobacco increases, as this will lead to a reduced probability of consuming factory-made cigarettes as well due to the negative cross-price elasticities of demand for participation (Table 2).

In addition to uncertainty over whether the cross-price elasticities between tobacco products are positive or negative, it is important to note that the Pryce et al. own-price elasticities used in this modelling are smaller than the HMRC/OBR elasticities[28]. The difference in the estimates arise from differences in methods and data sources. The elasticities used by the OBR are based on aggregate tobacco product clearances and used time series analysis methods, whereas the Pryce et al. analysis was based on individual-level Living Costs and Food Survey data using cross-sectional regression

models. The choice to use the Pryce et al. elasticities is because these can be used to explicitly model changes in smoking prevalence and are based on individual-level behavioural survey data, while the HMRC/OBR elasticities only model changes in overall consumption, with no separation between how many people are smoking and how much those who are smokers consume.

To model the impact of introducing a minimum price threshold on tobacco consumption, we began by assessing how the shifting of product prices up to the new threshold affects the average prices of hand-rolling tobacco and factory-made cigarettes. We then take the proportional changes in average prices and apply the price elasticities of demand to estimate the expected effects on two aspects: whether someone consumes hand-rolling tobacco or factory-made cigarettes at all, and if they do consume, the effect on the quantity they consume.

For a price change to influence smoking prevalence, it must result in individuals who would typically consume one or both of these tobacco products altering their behaviour to the extent that they no longer consume either. As a result, a significant price impact on hand-rolling tobacco might have a less pronounced effect on overall smoking prevalence if consumers of both products quit consuming hand-rolled

tobacco but continue to consume factory-made cigarettes. This will occur when the minimum price threshold is sufficiently low as to not affect the price of factory-made cigarettes, and consumption of factory-made cigarettes is unaffected by changes in the price of hand-rolled tobacco alone – as in our base case where the cross-price elasticities are set equal to zero.

3. The Potential Effects of Different Minimum Price Thresholds

3.1. Baseline Population Characteristics in 2026

Table 4 presents the expected baseline characteristics of smoking in Wales in 2026, after modelling trajectories of smoking based on tax policy and ongoing trends in smoking prevalence between 2022 and 2026, based on a representative synthetic population of Welsh adults generated from the 2022/23 National Survey for Wales data. Smoking prevalence among adults is estimated at 10.7% with a clear socio-economic gradient, with 4.7% of the adult population in the least deprived areas of Wales smoking compared to 17.1% in the most deprived areas. The prevalence of hand-rolled tobacco smoking follows a similar socio-economic pattern, with 6.4% of Welsh adults estimated to be consumers of hand-rolled tobacco in 2026, ranging from

2.4% in the least deprived fifth of areas to 10.8% in the most deprived. In summary, smoking behaviour is more prevalent in the most deprived areas of Wales, and there is more consumption of relatively cheap hand-rolled tobacco in these areas.

Table 4. Modelled baseline tobacco consumption and spending in 2026 by Welsh Index of Multiple Deprivation quintile.

	Population	WIMD Q1 (least deprived)	WIMD Q2	WIMD Q3	WIMD Q4	WIMD Q5 (most deprived)
Number of people who smoke	263,219	22,446	35,950	65,227	59,302	80,294
% of all people who smoke	100.0%	8.5%	13.7%	24.8%	22.5%	30.5%
Smoking prevalence (%)	10.7%	4.7%	7.3%	12.2%	12.4%	17.1%
Hand-rolling tobacco smoking prevalence (%)	6.4%	2.4%	4.7%	6.9%	7.2%	10.8%
Average sticks per smoker per week	75.5	83.7	77.3	73.1	73.8	75.6
Average spending per smoker per week	£40.64	£46.43	£40.81	£42.67	£38.71	£38.73

Average price per stick (all tobacco)	£0.54	£0.56	£0.53	£0.58	£0.52	£0.51
Average price per stick (cigarettes)	£0.70	£0.71	£0.70	£0.69	£0.69	£0.69
Average price per stick (hand-rolled tobacco)	£0.40	£0.40	£0.40	£0.40	£0.40	£0.40

3.2. Baseline Tobacco Prices in 2026

In 2026, the average price per stick of tobacco is estimated at £0.54 (

Table 4). Factory-made cigarettes cost approximately £0.70 on average (or £14 for a pack of 20). Hand-rolled tobacco is cheaper, at £0.40 per stick, translating to £40 for 50 grams assuming each stick contains 0.5 grams of tobacco[29]. On average, the price per stick of tobacco paid by consumers is lower in the more deprived areas (£0.51) compared to the least deprived areas (£0.56). This is despite little difference in the average prices paid for factory-made cigarettes and hand-rolled tobacco separately across WIMD

quintiles – the difference in overall average prices paid is due to the higher propensity for consuming relatively cheap hand-rolled tobacco in more deprived areas, rather than the more expensive factory-made cigarettes[30]. Overall spending per person who smokes is higher in the least deprived areas (£46.43 per week) than the most deprived (£38.73). This reflects both greater prevalence of cheaper hand-rolled tobacco in the most deprived areas and lower average consumption by people who smoke in the most deprived areas (75.6 sticks per week versus 83.7 sticks per week in the least deprived areas).

The cumulative distributions of expenditure according to product price in Figure 1 show the modelled price ranges for both hand-rolled tobacco and factory-made cigarettes in 2026 in the absence of a minimum price, with all prices expressed per stick of tobacco. It shows the proportion of each product sold at or below a specific price point, e.g. around 30% of hand-rolled tobacco is sold at 40p per stick, while all hand-rolled tobacco is sold below £0.50 per stick. The figure shows each of the minimum price thresholds modelled in terms of their impacts on the price distributions of each product. The 30p threshold affects only a small percentage of the very cheapest hand-rolled tobacco products, while the £0.50 and £0.60 thresholds would raise the price of all hand-rolled tobacco while leaving factory-made cigarette prices unaffected. The £0.80 minimum price threshold would raise the price of all hand-rolled tobacco and almost all factory-made cigarette products.

Initially, when the price distributions were estimated, they were based on 2022 prices. To reflect the 2026 price distribution, the initial distributions were updated to account for RPI inflation and any tax changes that occurred in the intervening period, assuming a continuation of the tobacco tax escalator. An additional parameter was also incorporated to adjust the lower end of the factory-made price distribution to account for products being sold at prices below the MET threshold.

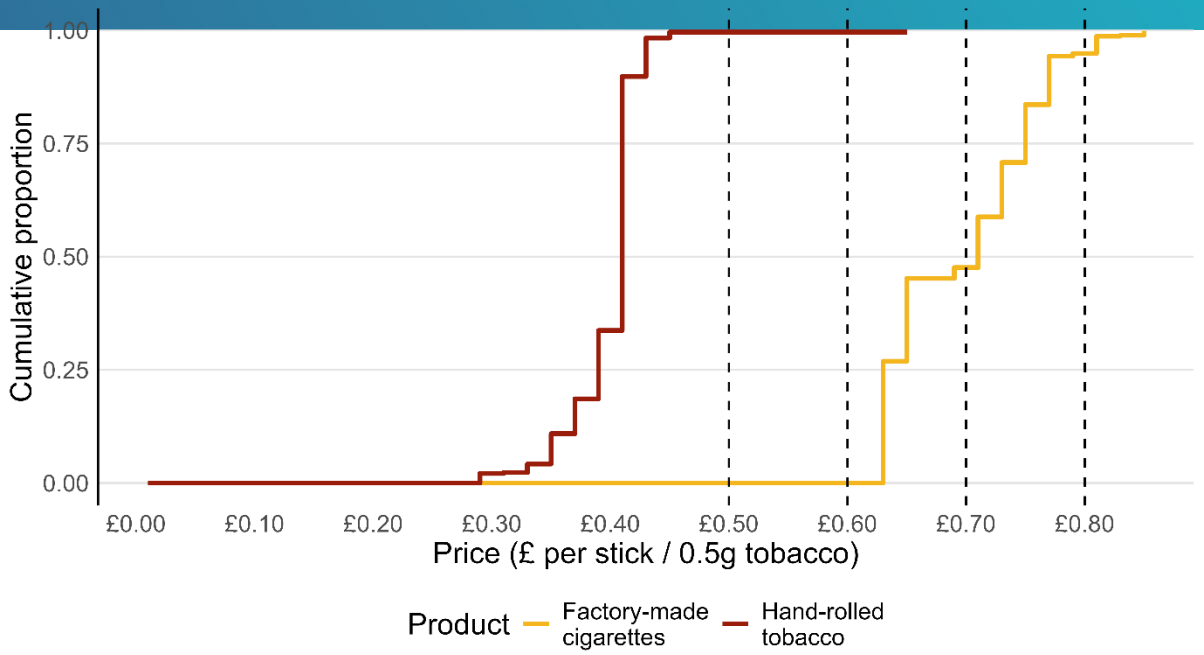


Figure 1. The cumulative distribution of sticks sold in each price band for hand-rolled tobacco and factory-made cigarettes. Modelled result for 2026 baseline without introducing a minimum price for tobacco.

3.3. Minimum Price Thresholds

This section outlines the definition of minimum price thresholds for tobacco and how they are applied to adjust tobacco prices in the model. See Section 3.4 for the consequent effects on tobacco consumption.

In this investigation, the minimum price is a threshold price per stick of tobacco below which tobacco cannot be sold, assuming that a hand-rolled cigarette contains 0.5g of tobacco. Four minimum price thresholds for tobacco are investigated, set at £0.50, £0.60, £0.70 and £0.80 per cigarette stick, with these thresholds defined in 2026 prices. Figure 1 for how these thresholds align with the distribution of tobacco prices. The lowest minimum price threshold of £0.50 is selected to affect the full distribution of prices for hand-rolled tobacco, with increments of 10p explored up to £0.80 which affects almost the full distribution of factory-made cigarettes.

In all analyses we assume that the minimum price threshold is annually adjusted in line with RPI inflation. We use RPI for this purpose rather than other inflation indices because it is the measure used by the UK Government to set inflation-indexed duty rates for tobacco. Data on RPI were obtained from a combination of the Office for National Statistics[31] and the OBR, with forecasts and assumptions about future inflation being derived from OBR's long-term economic determinants[32].

After updating the price distribution for the ongoing effects of the tobacco duty escalator in both the control and intervention arms, a copy of that distribution is taken, to which the minimum price threshold is applied in the intervention arm. This distribution represents the prices faced by consumers. Prices that fall below the minimum price threshold for that year are adjusted upward to meet the threshold, with all prices above the threshold unaffected. This is in line with the approach taken in the STAPM modelling of minimum unit pricing for alcohol[19, 20], and for minimum price of tobacco in Scotland[17], which closely reflected what actually happened to alcohol prices when minimum unit pricing for alcohol was introduced in Scotland in 2018[33].

3.4. Impacts on Tobacco Consumption

Figure 2 illustrates the projected impacts of each minimum price threshold on tobacco consumption in 2026, i.e. in the first year of the policy. According to the model, a £0.60 per stick minimum threshold, which would raise the price of all hand-rolling tobacco without affecting the price of factory-made cigarettes, is expected to result in an immediate 0.2%-point reduction in smoking prevalence (Table 5). This translates to 526 fewer people who smoke in the Welsh population aged 18–89.

The effect on smoking prevalence is anticipated to be more pronounced in the most disadvantaged WIMD quintiles. This social differential in the impact can be attributed to a combination of factors: individuals living in more deprived conditions tend to have

higher smoking rates, a greater likelihood of using hand-rolling tobacco, and a higher consumption of relatively cheaper tobacco products.

The impact on smoking prevalence becomes more substantial as the minimum price threshold is raised. However, this increase in effectiveness is not a straightforward linear response to the higher threshold. The magnitude of the incremental effectiveness depends on the extent to which the threshold covers the price distribution—in other words, the shape of the price distribution plays a crucial role in policy effectiveness.

For thresholds set at 70 pence per stick and above, they influence both the prices of hand-rolling tobacco and the prices of the least expensive factory-made cigarettes (Figure 1). In such cases, the policy's effect on smoking prevalence becomes a more complex interplay of the separate own-price effects on each type of tobacco, producing larger impacts on smoking prevalence, particularly as dual users of both hand-rolled tobacco and factory-made cigarettes may quit smoking.

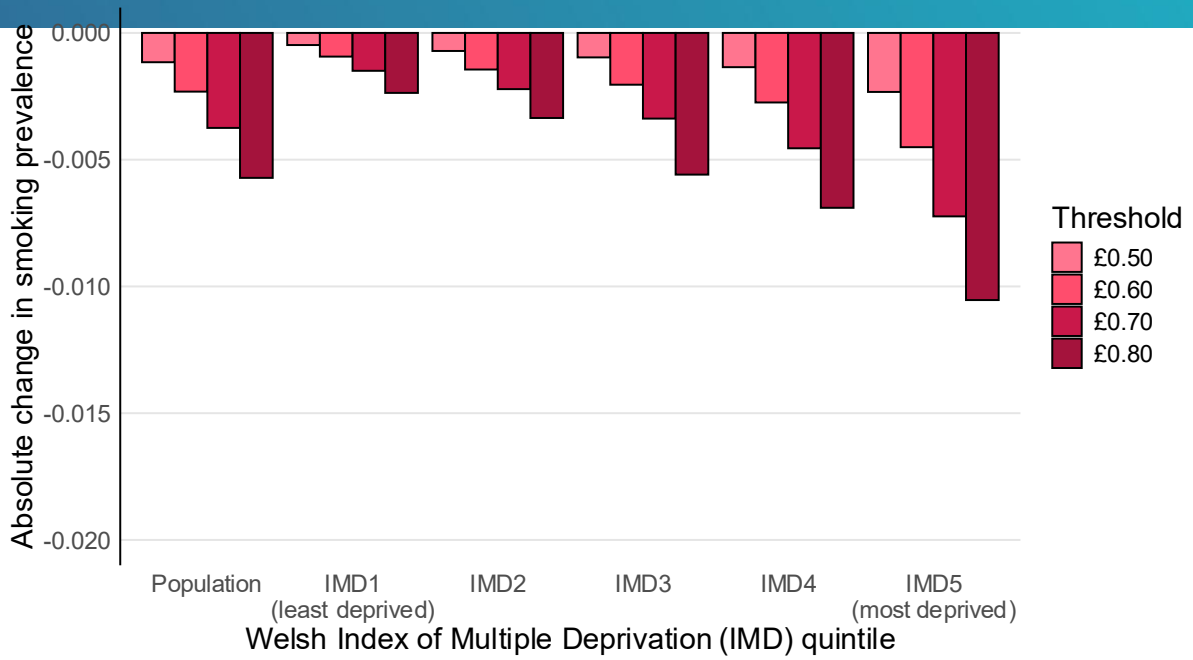


Figure 2. Base-case Analysis: Modelled impacts on smoking prevalence in 2026, the first year of policy introduction, compared to control. These numbers are also presented in Table 5.

Table 5. Modelled impacts on smoking prevalence in 2026, the first year of policy introduction, compared to control. These numbers are also presented in Figure 2.

	All people who smoke	WIMD Q1 (least deprived)	WIMD Q2	WIMD Q3	WIMD Q4	WIMD Q5 (most deprived)
Smoking prevalence (%) at baseline	10.7%	4.7%	7.3%	12.2%	12.4%	17.1%
Number of people who smoke at baseline	263,219	22,446	35,950	65,227	59,302	80,294
Thresholds	**Absolute change in smoking prevalence vs. control (i.e. percentage point change in smoking prevalence)**					
£0.50	-0.1%	0.0%	-0.1%	-0.1%	-0.1%	-0.2%
£0.60	-0.2%	-0.1%	-0.1%	-0.2%	-0.3%	-0.5%
£0.70	-0.4%	-0.1%	-0.2%	-0.3%	-0.5%	-0.7%
£0.80	-0.6%	-0.2%	-0.3%	-0.6%	-0.7%	-1.1%

3.4.1. The influence of the Cross-price Elasticity of Demand

The interplay between prices of hand-rolling tobacco and consumption of factory-made cigarettes can impact the expected outcomes, as described by the cross-price elasticities of demand between the two products. The cross-price elasticities used in this report are however subject to a high level of uncertainty. The estimates indicate that hand-rolling tobacco and factory-made cigarettes are complements, i.e. when the price of one product increases, both hand-rolling tobacco and factory-made cigarette consumption decreases. However, the high level of uncertainty also leaves room for the possibility that the two products are substitutes, i.e. increases in the price of one product cause people to switch to the other. Due to this uncertainty, we set the cross-price effects to zero for the base-case analysis. Here we present sensitivity analysis results that compare the estimated impacts on smoking prevalence when we include the cross-price elasticities as estimated by Pryce et al.[26] to our base-case that sets those elasticities to zero.

Figure 3 shows the modelled immediate impacts on smoking prevalence of a £0.60 minimum price for tobacco in 2026, comparing the base-case results (no cross-price effects) to a sensitivity analysis in which the estimated cross-price elasticities presented in Table 2 and in

Table 3 are implemented. The sensitivity analysis results show that the base case assumption of zero cross-price elasticities produce a more conservative estimate of the impact of minimum pricing on smoking prevalence. The estimated impact of a £0.60 minimum price on smoking prevalence is an approximate 0.2%-point reduction in the base case, almost half of the estimated reduction of 0.4% points when cross-price effects are included. This finding holds across all IMD quintiles, with similar magnitudes of difference between the two scenarios. The full results of the sensitivity analyses allowing for cross-price effects between the two products are presented in Figure 4 and Table 6.

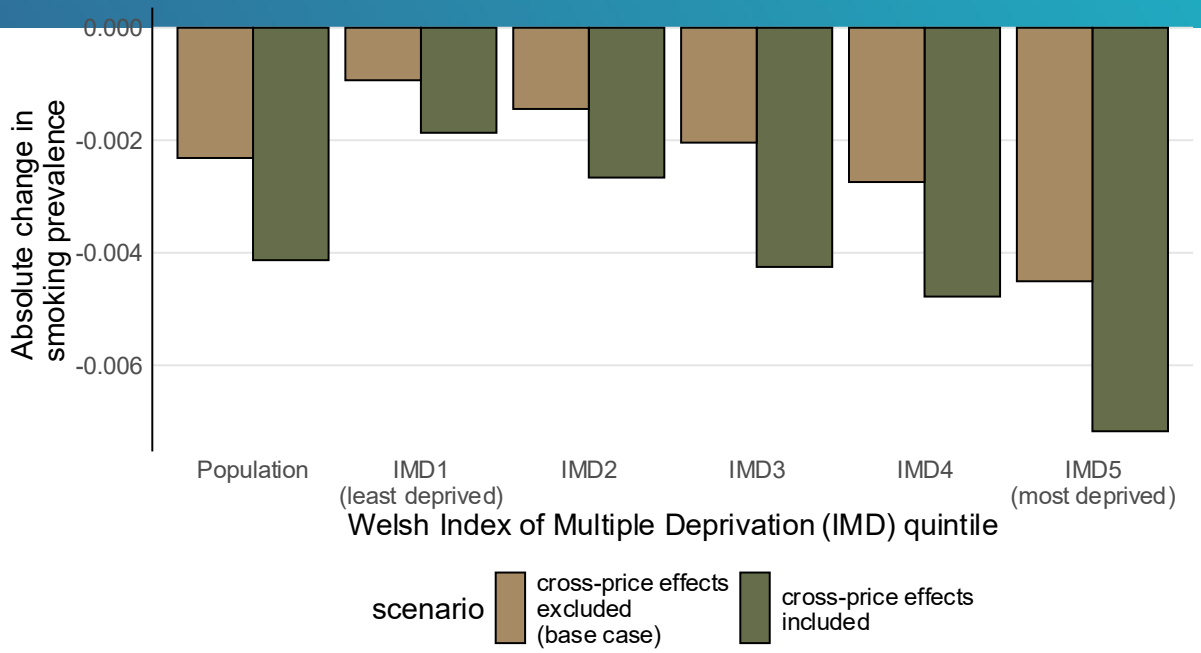


Figure 3. Estimated impacts of a £0.60 minimum price for tobacco on smoking prevalence in 2026 with and without cross-price elasticities between factory-made cigarettes and hand-rolled tobacco.

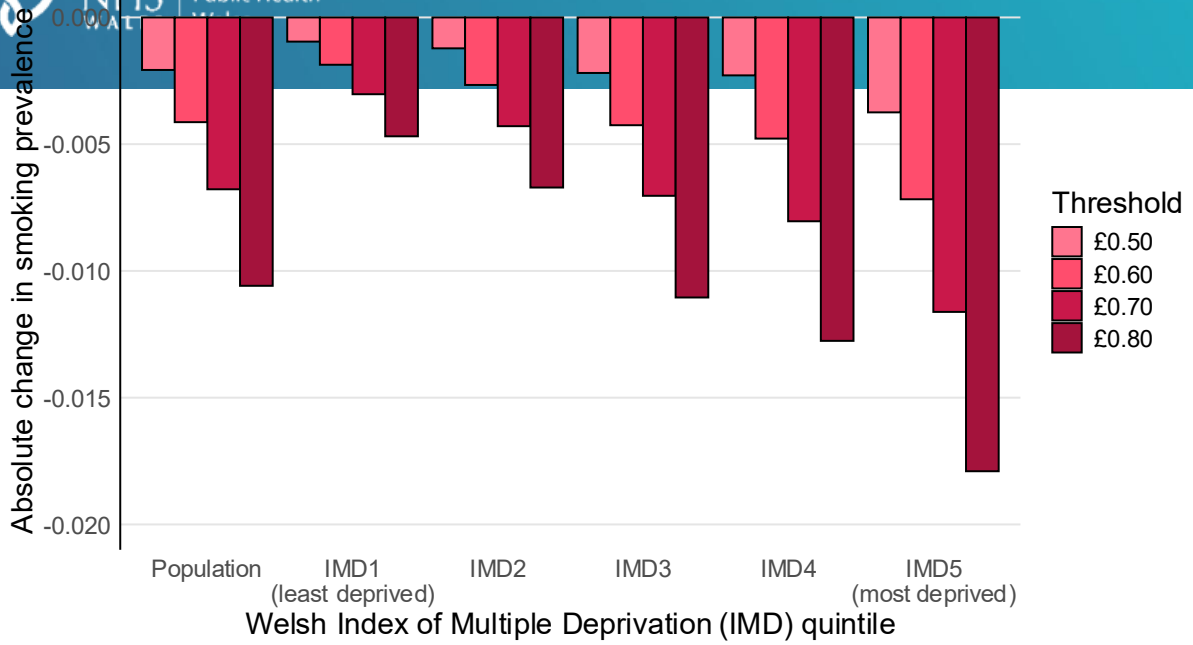


Figure 4. Sensitivity analysis If cross-price elasticities effects are Included: Modelled impacts on smoking prevalence in 2026, the first year of policy introduction, compared to no minimum price. These estimates include cross-price elasticities of demand between factory-made cigarettes and hand-rolled tobacco. These numbers are also presented in Table 6.

Table 6. Modelled impacts on smoking prevalence in 2026, the first year of policy introduction, compared to control. These estimates include cross-price elasticities of demand between factory-made cigarettes and hand-rolled tobacco. These numbers are also presented in Figure 4

	All people who smoke	WIMD Q1 (least deprived)	WIMD Q2	WIMD Q3	WIMD Q4	WIMD Q5 (most deprived)
Smoking prevalence (%) at baseline	10.6%	4.6%	7.3%	12.1%	12.3%	16.9%
Number of people who smoke at baseline	260,938	22,197	35,571	64,699	58,874	79,597
Thresholds	**Absolute change in smoking prevalence vs. control (i.e. percentage point change in smoking prevalence)**					
£0.50	-0.2%	-0.1%	-0.1%	-0.2%	-0.2%	-0.4%
£0.60	-0.4%	-0.2%	-0.3%	-0.4%	-0.5%	-0.7%
£0.70	-0.7%	-0.3%	-0.4%	-0.7%	-0.8%	-1.2%
£0.80	-1.1%	-0.5%	-0.7%	-1.1%	-1.3%	-1.8%

3.3 Impacts on Long-term Smoking Prevalence

The model also assessed the impact of each price threshold on longer-term trends in smoking prevalence, including the expected smoking prevalence in 2030. Table 7 shows the modelled impacts of the minimum price thresholds on smoking prevalence by 2030, equivalent to the results for 2026 presented in Table 5. In these long-term projections, there is a consistent trend of diminishing effects of the initial introduction of the minimum price threshold on smoking prevalence. For instance, the effect of a £0.60 minimum threshold, which initially led to a 0.2%-point reduction in smoking prevalence in 2026 relative to the control scenario of no minimum price, is projected to decrease to a 0.1%-point reduction (216 fewer smokers) by 2030.

Table 7. Modelled impacts on smoking prevalence in 2030, compared to control.

	All people who smoke	WIMD Q1 (least deprived)	WIMD Q2	WIMD Q3	WIMD Q4	WIMD Q5 (most deprived)
Smoking prevalence (%) at baseline	8.8%	3.0%	5.7%	10.8%	10.3%	13.9%
Number of people who smoke at baseline	215,678	14,021	26,917	58,436	49,095	67,209
Thresholds	**Absolute change in smoking prevalence vs. control (i.e. percentage point change in smoking prevalence)**					
£0.50	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%
£0.60	-0.1%	0.0%	-0.1%	-0.1%	-0.1%	-0.2%
£0.70	-0.2%	0.0%	-0.1%	-0.1%	-0.2%	-0.3%
£0.80	-0.2%	-0.1%	-0.1%	-0.2%	-0.3%	-0.5%

The highest threshold at £0.80 is projected to lead to a 0.2% decrease in smoking prevalence by 2030 (431 fewer people who smoke), still leaving Wales at a smoking prevalence of 8.6%. This would leave Wales short of the 5% target, and with prevalence in the most deprived WIMD quintile still in excess of 10%.

Figure 5 illustrates the diminishing effectiveness of the policy over time. This decreasing effect on smoking prevalence over successive years occurs because the

model assumes the policy's impact is concentrated in the year it is introduced. Although the model does incorporate persistent effects over time on smoking rates for individuals aged 18, as well as the amount of tobacco consumed by people who smoke, it assumes that the underlying smoking state transition probabilities related to smoking initiation, quitting, and relapse remain unaffected by the policy. Consequently, the model's estimated policy impact gradually diminishes in the years following its introduction, due to relapses among people who quit smoking due to the policy and generational turnover within the model.

Another reason for diminishing effectiveness of the policy is due to the nature of uprating. The modelled scenarios assume that the minimum price will be uprated in line with RPI inflation each year, however the tobacco duty escalator of RPI + 2% is assumed to persist throughout the duration of the model. This would mean that tobacco prices increase faster than the minimum price threshold and any minimum price policy would have to at least keep pace with tobacco prices to remain effective over the long term, as has been found in previous analyses in the context of alcohol[19, 20].

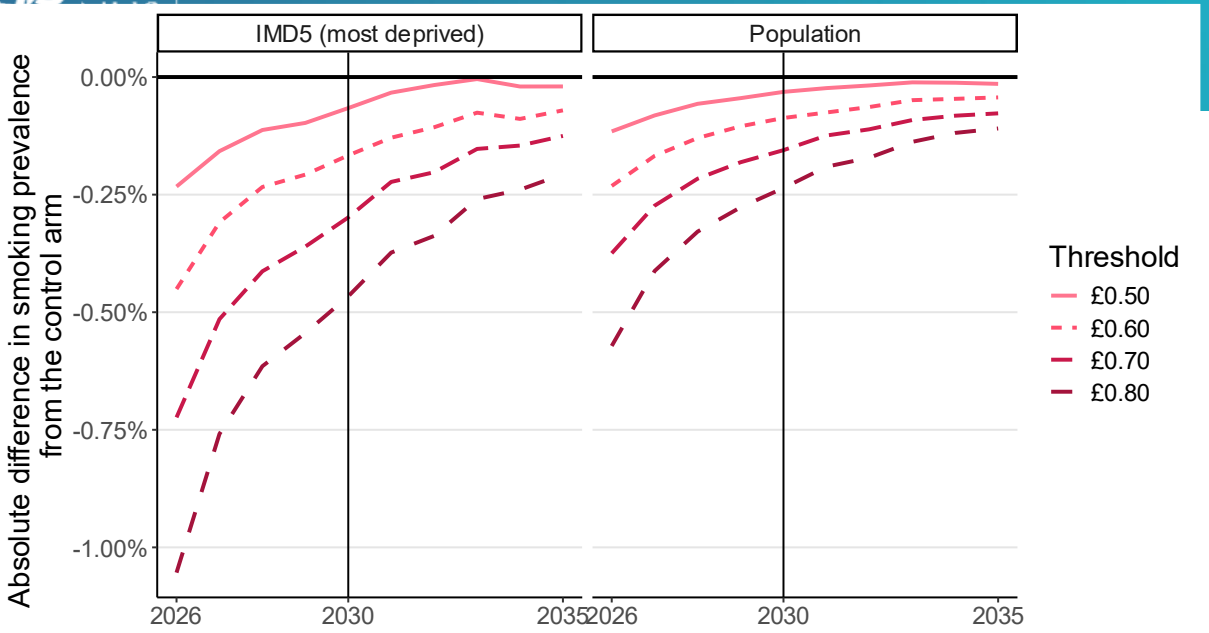


Figure 5. Estimated change in the initial policy effects on smoking prevalence over years since the initial policy change. They do not include the additional effects of assuming an ongoing, i.e. year on year, consumer response to a minimum pricing policy introduced in 2026.

3.6. Impacts on Consumer Spending

When tobacco prices rise to meet a minimum threshold, some people who smoke will quit while others will cut back. Those who don't reduce their consumption enough will end up paying more. We analysed the expected increase in weekly tobacco spending for people who smoke who continue smoking in the first year of the policy. People who quit smoking and therefore reduce their spending to £0 are not included in this estimate of the change in average spending, but the loss of their spending will contribute to reduced revenue to tobacco retailers and tax to the UK Government.

Increasing the minimum price threshold means people who continue to smoke will spend more. For instance, a £0.60 threshold would raise the average weekly spending on tobacco by £5.26 (Table 8, Figure 6). This increase was slightly more pronounced for people who smoke in the most deprived WIMD quintile (£6.15), who typically purchase cheaper tobacco products.

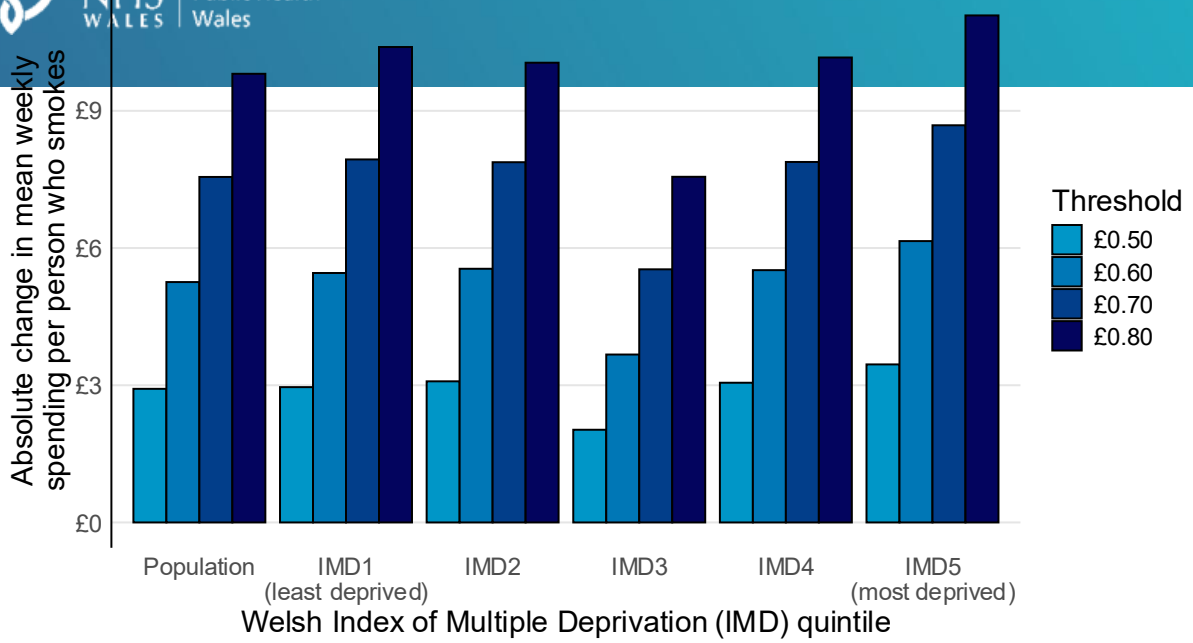


Figure 6. Modelled change in average weekly spending per person who continues to smoke in 2026. These figures are also presented in Table 8.

Table 8. Modelled impacts on average spending per smoker per week. These effects do not include the cross-price elasticities of demand. These numbers are also presented in Figure 6.

	All people who smoke	WIMD Q1 (least deprived)	WIMD Q2	WIMD Q3	WIMD Q4	WIMD Q5 (most deprived)
Mean spending per smoker per week at baseline	£40.64	£46.43	£40.81	£42.67	£38.71	£38.73
Thresholds	Absolute change in spending (£) vs. control					
£0.50	£2.92	£2.96	£3.09	£2.03	£3.05	£3.46
£0.60	£5.26	£5.45	£5.55	£3.67	£5.52	£6.15
£0.70	£7.55	£7.94	£7.88	£5.53	£7.88	£8.68
£0.80	£9.81	£10.40	£10.05	£7.56	£10.17	£11.09

3.7 Impacts on Health

Using the base-case model, that does not consider cross-price effects between hand-rolling tobacco and factory-made cigarettes, we projected the potential impacts of each minimum price threshold on changes in health harms as a consequence of the reduced smoking prevalence presented in the previous sections. Health outcomes modelled include years of life lost (YLLs) due to deaths, tobacco-related hospital admissions, and the associated costs of those hospital admissions. The rates of mortality and hospital admission were provided by Digital Health and Care Wales. Unit costs of hospital admissions were estimated from English Hospital Episode Statistics data for 2016/17 and adjusted for cost inflation to 2022/23 prices using the NHS cost inflation index. Changes in health outcomes are presented as cumulative differences between the intervention arm and control arm over a 20-year time horizon, from 2027 to 2046. This time horizon is chosen as it allows the full effect of changes in smoking behaviour in 2026 to translate into changes in the risks of mortality and hospitalisation.

Figure 7 / Table 9 shows the impact on total years of life lost to premature death due to tobacco smoking between 2027-2046. A £0.60 minimum threshold is predicted to contribute an additional 2,956 years of life to the Welsh population, calculated cumulatively compared to the control arm up to 2046, with a more substantial impact on YLLs to death in individuals residing in the most deprived WIMD quintiles (554 YLLs averted) compared to the least deprived quintile (42 YLLs averted).

Figure 8 / Table 10 shows the analogous effects on tobacco-related hospital admissions. The model suggests that a £0.60 minimum threshold could lead to there being approximately 859 fewer hospital admissions by 2046. This would result in an overall cumulative cost saving to the NHS of approximately £0.429 million over 5 years and £1.484 million by 2046 (Figure 9 / Table 11).

If we were to assume a long-term effect (see Section 3.5), it is likely that the health impacts would also increase in a similar manner as estimated for smoking prevalence, which could approximately double.

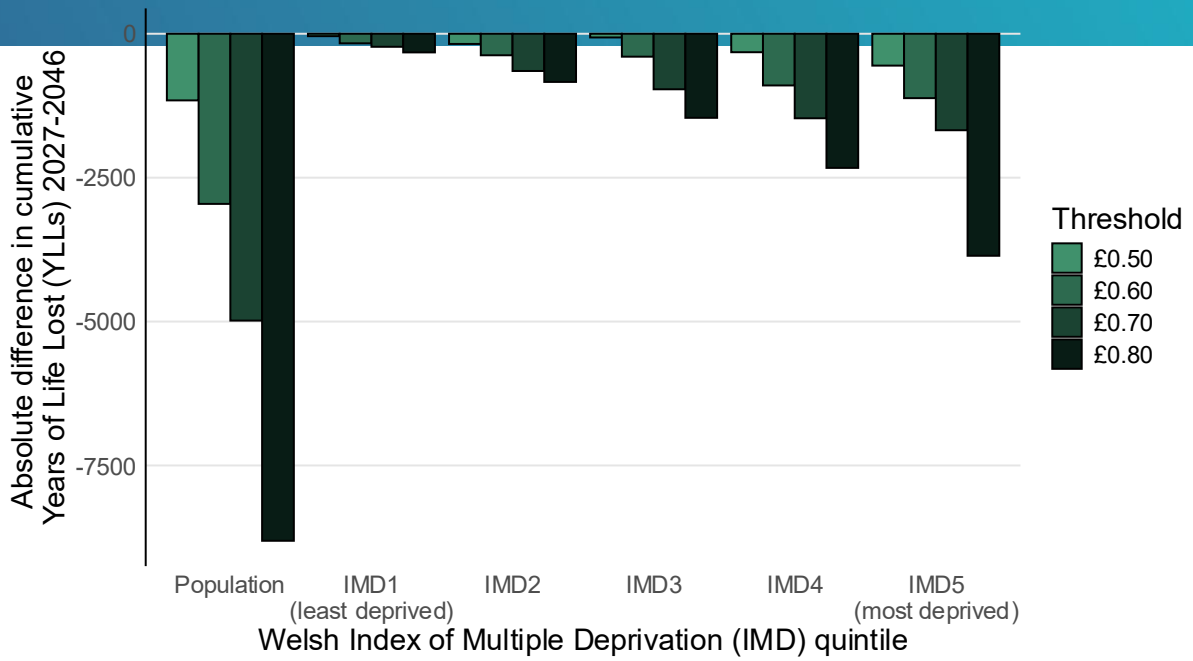


Figure 7. Cumulative change in the years of life lost to premature death between 2027-2046.

Table 9. Cumulative change in the years of life lost to premature death between 2027-2046.

	All people who smoke	WIMD Q1 (least deprived)	WIMD Q2	WIMD Q3	WIMD Q4	WIMD Q5 (most deprived)
Thresholds	Absolute change in cumulative YLLs 2027-2046					
£0.50	-1,158	-42	-177	-65	-321	-554
£0.60	-2,956	-166	-374	-398	-898	-1,119
£0.70	-4,983	-227	-647	-965	-1,469	-1,676
£0.80	-8,808	-324	-837	-1,460	-2,330	-3,857

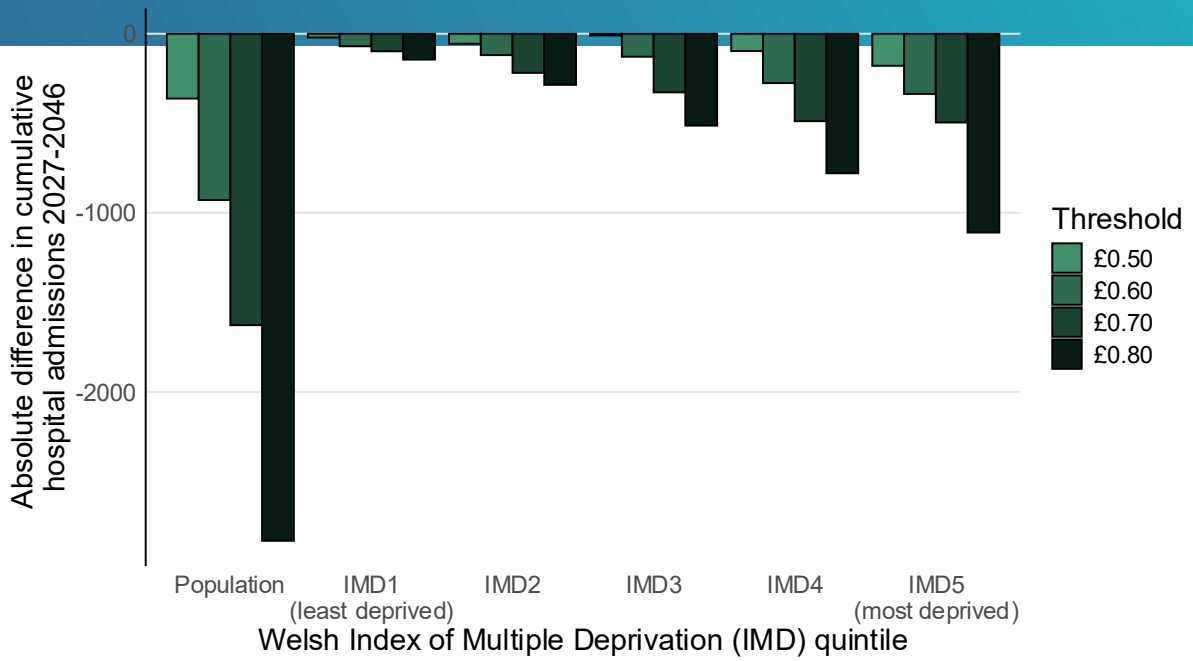


Figure 8. Cumulative change in hospital admissions between 2027-2046.

Table 10. Cumulative change in hospital admissions between 2027-2046

	All people who smoke	WIMD Q1 (least deprived)	WIMD Q2	WIMD Q3	WIMD Q4	WIMD Q5 (most deprived)
Thresholds	Absolute change in cumulative total hospital admissions 2027-2046					
£0.50	-362	-21	-56	-10	-97	-179
£0.60	-929	-70	-119	-128	-275	-336
£0.70	-1,628	-98	-218	-327	-488	-496
£0.80	-2,832	-144	-285	-513	-779	-1,110

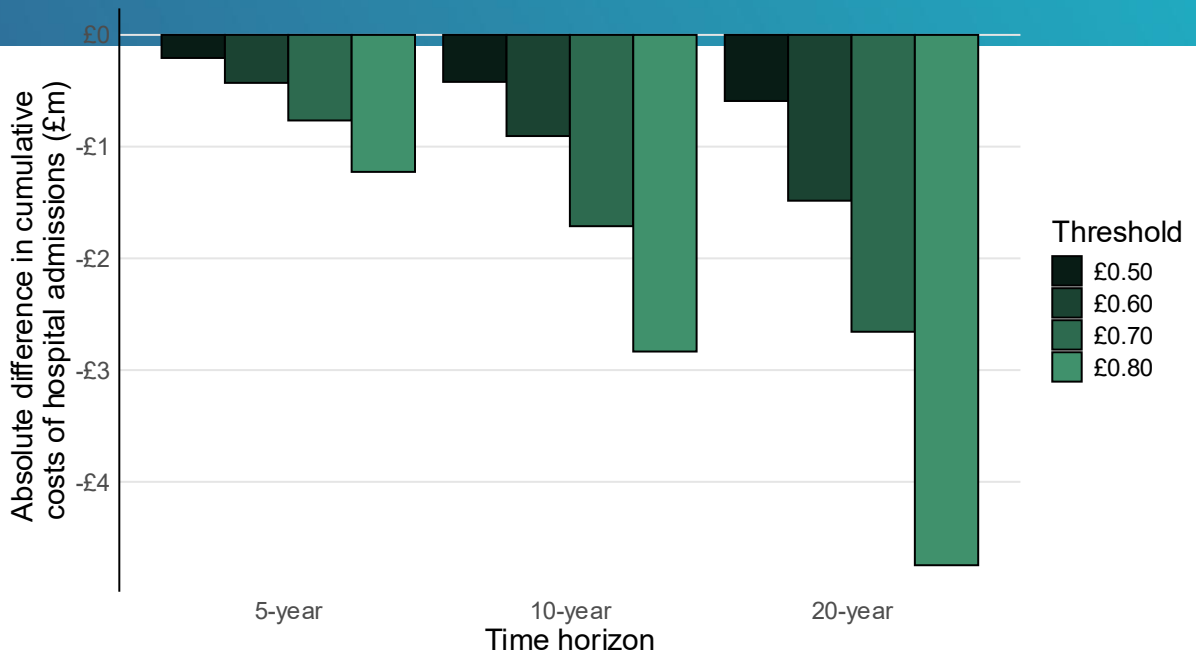


Figure 9. Cumulative change in NHS costs of hospital admissions over 5, 10, and 20-year time horizons

Table 11. Cumulative change in NHS costs of hospital admissions over 5, 10, and 20-year time horizons.

	5-year cumulative	10-year cumulative	20-year cumulative
Thresholds	Absolute change in cumulative total hospital admissions costs 2027-2046 (£m)		
£0.50	-£206,473	-£420,501	-£591,546
£0.60	-£429,309	-£905,220	-£1,483,857
£0.70	-£765,882	-£1,712,093	-£2,656,895
£0.80	-£1,226,044	-£2,833,988	-£4,746,524

3.3 Impacts on Government Tax and Retail Revenues

Finally, we report the estimated impacts of the minimum price thresholds on economic outcomes in terms of the revenues earned by tobacco retailers (after payment of tobacco excise duties and VAT), and tax revenue to the UK Government from tobacco duties and VAT from tobacco sales in Wales.

Figure 10 and Table 12 show that minimum pricing of tobacco would increase revenues to the tobacco industry while costing central government money in terms of reduced revenues. This is because the price increases induced by imposing the minimum price are proportionately larger than the reduction in tobacco consumption due to the small price elasticities of demand for tobacco (Table 2,

Table 3). As a result, overall spending on tobacco increases and government loses tax revenue from reduced consumption while retailers earn more revenue from the higher prices. In the case of a £0.60 minimum price per stick threshold, retailer revenues are expected to increase by £306 million over five years, while tax receipts from tobacco duty and VAT are expected to be reduced by approximately £34 million over the same period.

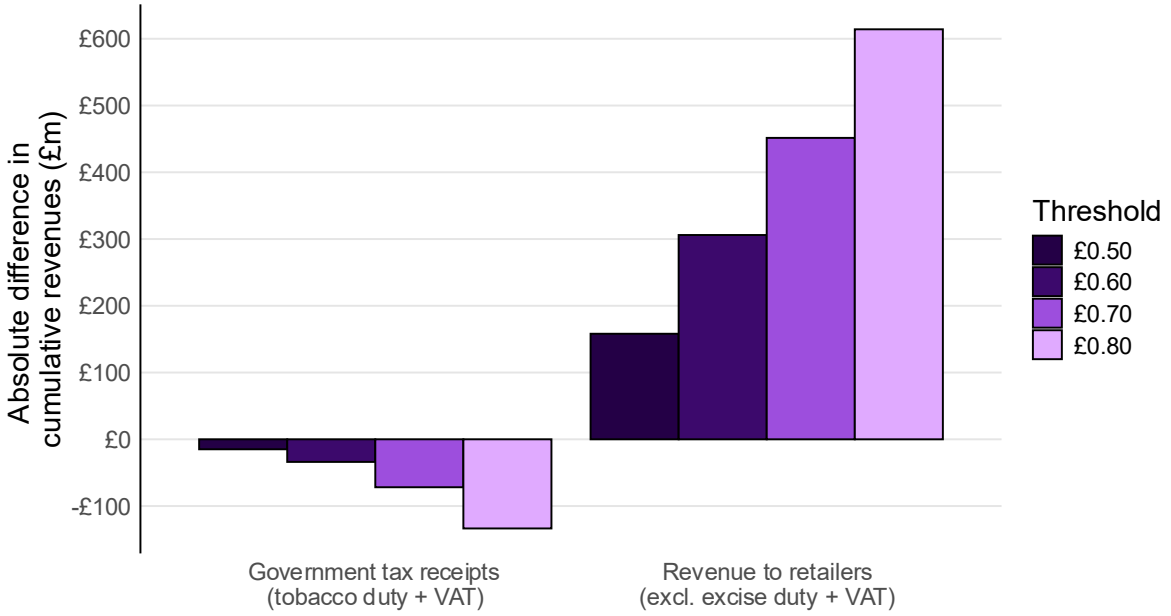


Figure 10. Cumulative changes in net revenues to tobacco retailers (excluding tax) and government tax receipts from tobacco duty + VAT over five years.

Table 12. Cumulative changes in net revenues to tobacco retailers (excluding tax) and government tax receipts from tobacco duty + VAT over five years.

	Net revenues to retailers	Tobacco duty + VAT receipts to govt
Thresholds	Absolute change in 5-year cumulative government tax and retailer revenues 2026-2030	
£0.50	£158,094,987	-£14,946,262
£0.60	£306,035,657	-£33,873,886
£0.70	£451,520,790	-£71,812,294
£0.80	£614,180,976	-£133,538,304

3.9. The Importance of Uprating to Address Inflation

The analysis presented so far has assumed that once the minimum price for tobacco is implemented, the threshold is uprated each year in line with RPI inflation i.e. held constant in real terms. Given that tobacco duty increases annually by a tax escalator of RPI + 2%, prices would rise quicker than a minimum price threshold which was only uprated by RPI. In this section we show the potential benefit of increasing the minimum price in line with RPI plus the tobacco tax escalator, instead of in line with RPI only. To do so we modelled an additional policy scenario, increasing the £0.60 threshold by RPI + 2% annually for the duration of the model, in line with the tobacco duty escalator, compared to our base case analysis which increased the threshold by RPI each year. Figure 11 illustrates the time series of the minimum price threshold for the two uprating scenarios applied to the £0.60 minimum price policy.

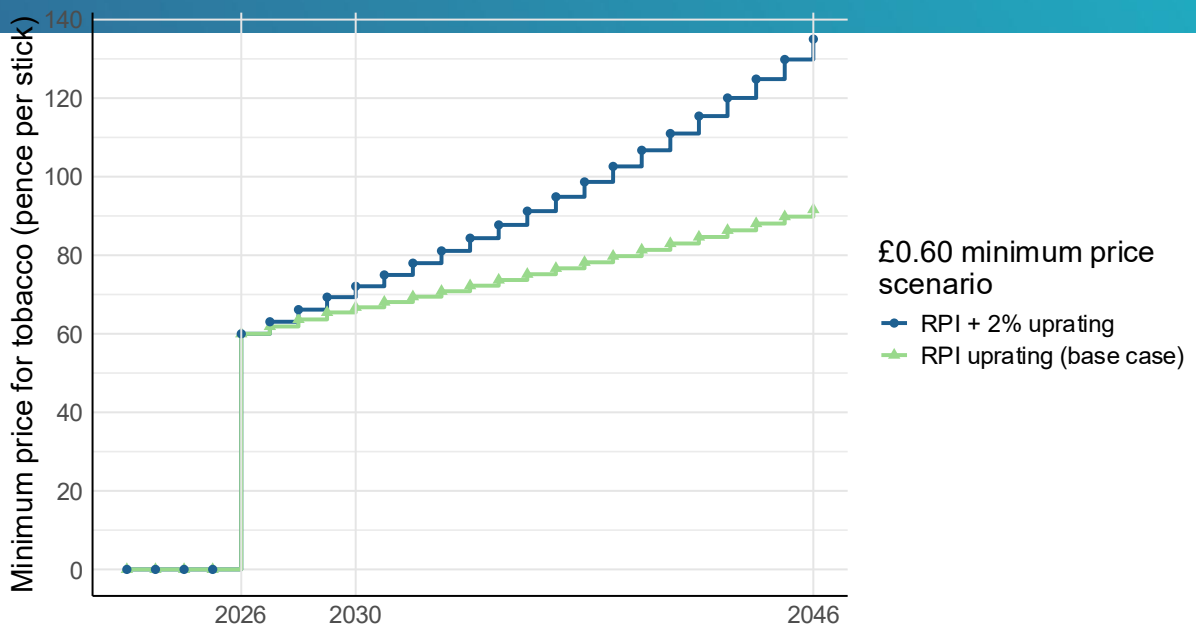


Figure 11. Minimum price thresholds 2026-2046 under different uprating assumptions

The results of the sensitivity analysis are summarised in Figure 12, which shows the time series of the policy effect of both uprating scenarios on (i) the mean price of hand-rolled tobacco, (ii) overall smoking prevalence, (iii) cumulative years of life lost (YLLs) to premature death, and (iv) cumulative hospitalisations.

The top left panel of the figure shows the absolute difference over time in the mean price of hand-rolling? tobacco between the £0.60 minimum price scenario and the control scenario, separately for the two uprating scenarios. In the base case, raising the minimum price to £0.60 per stick increases the average price of HRT by approximately 20p per stick. In the base case, where the minimum price is uprated by RPI inflation, this price differential diminishes over time as the price of HRT increases faster than the threshold due to the tax escalator, eroding the effectiveness of the minimum price threshold. By 2046, hand-rolled tobacco remains more expensive than if there had been no minimum price set at all, but the differential is estimated to reduce from 20p to 6p per stick. The reverse is true when the minimum price threshold is increased by more than the rate of inflation each year, with the price differential

increasing over time as the minimum price threshold is increased by a larger amount annually.

The impact of this on smoking and health outcomes can be seen in the remaining panels. The top right panel shows the time series of the difference in smoking prevalence between intervention and control for the two uprating scenarios. In both cases the impact on prevalence gradually reduces over time, but with greater annual uprating by 2046 the reversion is more gradual. There remains an approximate 0.25% lower prevalence of smoking in the intervention arm relative to control, while in the base case the policy effect has vanished.

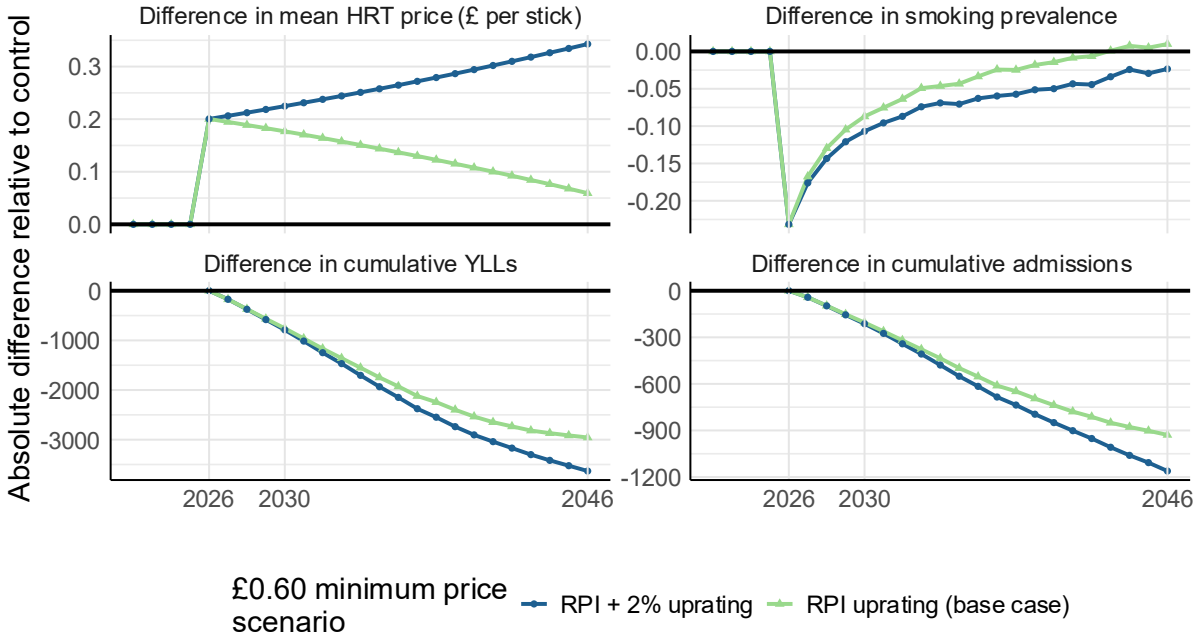


Figure 12. Estimated policy effect of a £0.60 minimum price for tobacco on hand-rolled tobacco prices, smoking prevalence, years of life lost, and hospital admissions under different uprating scenarios

The differential impacts of the two uprating scenarios on prevalence lead to commensurate effects on health outcomes, with larger cumulative reductions in health harms when the minimum price threshold is uprated by RPI + 2%. This is estimated to lead to an additional YLLs prevented of approximately 500 (an additional

16.6% compared to RPI uprating only) by 2046, and 300 additional hospital admissions prevented over the same period (33.3% more than with RPI uprating).

4.1. Results Summary

This report has outlined the potential impacts of implementing varying levels of minimum pricing for tobacco on smoking prevalence and public health in Wales. A 60p minimum price per stick of tobacco would raise the price of all hand-rolling tobacco without affecting the price of factory-made cigarettes. Our findings indicate that a threshold set at this level would reduce smoking prevalence by 0.2%, reducing the number of people who smoke by approximately 526. This would increase spending on tobacco by those who continue to smoke by £5.26 on average due to higher prices. Longer term health impacts would be a reduction in years of life lost to premature death of -2,956 between 2027 and 2046, 929 fewer hospital admissions, and a commensurate reduction in NHS costs of hospital admissions of £1.48 million. A higher minimum price threshold would yield greater impacts.

The estimated impacts presented here are likely conservative, using price elasticities of demand which omit any cross-price effects as the cross-price elasticity estimates are subject to a large degree of statistical uncertainty. Inclusion of the cross-price effects would increase the estimated impacts of minimum pricing on prevalence, and the health and outcomes presented here, as the estimated elasticities suggest that the two tobacco products are complements[26]. The results presented here are consistent with previous modelling undertaken in the context of Scotland[16, 17].

Minimum pricing for tobacco is assessed to be an effective method for elevating the price of the cheapest legally available tobacco. Higher prices for tobacco are estimated to lead to reduced smoking prevalence and improved long-term health outcomes. A £0.60 minimum price is estimated to reduce smoking prevalence by 0.2%-points, reduce years of life lost to premature death by 2,956 over 20 years, and hospitalisations from tobacco-related conditions by 929 over the same period. The impact of this policy would be larger in areas with higher levels of deprivation, owing

to the existing patterns of tobacco consumption and spending preferences, and so this policy would reduce health inequalities in addition to improving population health. Furthermore, the effects on tobacco consumption and public health would increase with higher minimum price thresholds. Regular uprating of the minimum price threshold is important to maintain the effectiveness of the threshold, and uprating by RPI+2% versus uprating in line with RPI can lead to substantial increases in the improvements to public health over the long term. As minimum pricing would be a policy implemented alongside UK tobacco duty, not replacing it, it is important to ensure that any minimum price remains effectiveness by increasing the threshold in line with increasing tobacco prices as a result of the duty escalator.

Higher minimum thresholds would, however, result in increased spending on tobacco by consumers who do not quit smoking as a consequence of the policy, potentially increasing financial burden on those who remain smokers[34]. This overall increased spending by consumers is estimated to lead to greater revenue for the tobacco industry from product sales and decreasing revenues to the UK Government from excise duty and VAT on tobacco products.

An important consideration in implementing minimum pricing is effective uprating. The analysis presented in this report assumed that the minimum price threshold, once implemented, would be uprated in line with RPI inflation each year subsequently so that the value of the threshold does not decline in real terms, which would erode the effectiveness of the policy. Recent analysis of minimum unit pricing for alcohol in Wales found that because of the effects of inflation, the minimum unit price for alcohol would have to increase from £0.50 to 65p in 2026 simply to remain as effective in 2026 as it was when implemented in 2020[19]. This consideration is even more important in the context of a minimum price for tobacco, with the annual duty escalator of RPI+2% each year putting greater upward pressure on tobacco prices than is the case in the context of alcohol, where excise duty is not subject to an automatic duty escalator and it is often the case that duty rates applied to alcohol are frozen. To remain effective over time, any minimum price for tobacco would have to

be uprated regularly by at least the tobacco duty escalator, and notably in recent UK Government Budgets duty on hand-rolled tobacco has increased by considerably more than RPI+2%.

4.2. Alternative Policy Options to Minimum Pricing

The 2022 Kahn review[35], an independent assessment of tobacco policy commissioned by the UK Government, recommended a one-off 30% increase in tobacco excise duty, which would be much larger than any prior duty rise. While the present report has not considered changes in tax policy, the analysis for Scotland indicated that this would roughly equate to a minimum price threshold of £0.80 per stick, in terms of impacts on health outcomes[16].

Minimum pricing for tobacco is considered here as a complement to a continuation of tobacco tax rises in the UK rather than as a substitute for tax. In general, these policies aim to raise the price of all tobacco whilst narrowing the price range, i.e. act most strongly on the cheapest legally available tobacco. This cheapest legally available tobacco is HRT. Consequently, recent tax policy in the UK has used a higher escalator on HRT than FM cigarettes. However, the issue with tax based strategies is that the industry can easily still maintain a relatively cheap set of tobacco products, which it uses as a marketing strategy for price sensitive consumers. Thus, additional targeted options are needed to reduce availability of the cheapest products. Among these options, two policies stand out as having effects similar to setting a minimum price.

The first option involves expanding the existing Minimum Excise Tax (MET) (see Section 1.1) to encompass Value Added Tax within the total tax amount to which the minimum tax threshold applies. This extended version could allow the MET to act on the price of HRT (the MET currently only acts on the price of the cheapest FM cigarettes) and was referred to as the "Minimum Consumption Tax" in the government consultation on the MET[36]. These minimum tax structures, which encompass MET and MCT, are effective only when products have an *ad valorem*

component, which means that taxes are applied in proportion to the product's price either before or after excise duty is added. These *ad valorem* tax structures incentivise the tobacco industry to increase their profits from product sales to meet the minimum tax threshold. The MET is currently only in place for factory-made cigarettes, with no equivalent for hand-rolled tobacco. Furthermore, although this worked initially after the MET was implemented, there are concerns that the industry may choose to pay the MET on products because it values the ability to keep the least expensive tobacco products affordable.

The second option involves introducing a wholesale price cap alongside a substantial increase in excise duty[37-39]. The price cap, acting as an upper limit on wholesale prices, restricts the profits that the industry can generate from selling more expensive tobacco products, similar to a 'polluter pays' industry levy. Simultaneously, the excise duty increase can be calibrated to prevent any tobacco products from becoming cheaper due to the price cap while raising the prices of all tobacco products. This would result in a substantial overall price increase, an increase in UK Government revenue, and a deliberate limitation of industry profits. Moreover, it curbs the possibility of price variation in the tobacco market, which would limit the ability for the tobacco industry to use price as a marketing tool and to use pricing tactics to mitigate the effects of tax increases. By offsetting reductions in wholesale prices with increases in excise tax, previously large industry profits would transfer to an increase in UK Government tax revenues[40]. A previous investigation of this possibility using UK company account information up to 2010 suggested this could be in the region of £500 million per year[37], although those estimates are now dated. Not only could such additional UK Government tax revenue be beneficial in funding wider public health measures, but the inherent reduction in industry profitability would also materially change industry incentives for continuing the tobacco epidemic. However, it remains unclear how a price cap policy strategy would interact with the existing Minimum Excise Tax and might necessitate its replacement.

Another category of policy options that could influence tobacco prices includes levies and fee schemes that may impose various charges directly on tobacco manufacturers, importers, and retailers. The impact of these policies on tobacco consumption primarily hinges on the reactions of the affected segments within the tobacco industry to these additional charges. Provision for devolved governments to create licensing regimes for tobacco and nicotine products is included in the Tobacco and Vapes Act, 2026. License fees could reduce the availability of tobacco, by leading retailers to stop selling tobacco products or cease their business operations altogether. Licensing could also make tobacco more expensive, either because retailers pass the license costs onto consumers or consumer have to pay more to travel greater distances to purchase tobacco products[42]. This approach could also support the enforcement of minimum price regulations.

Efforts aimed at curbing the illicit tobacco market are, in essence, a type of price regulation as illicit tobacco is notably the most affordable option. The tobacco industry tends to use the resultant increased demand for illicit tobacco to argue against large tobacco price rises[27]. However, policies to control the supply of illicit tobacco are more impactful and there has been an overall decline in levels of illicit tobacco in the UK despite continued tax increases[43]. In 2024, the Conservative UK Government introduced a new strategy to reduce the demand for and accessibility of illicit tobacco and to increase enforcement activities against the organised crime groups involved in its supply[44].

When implementing new price regulations that lead to a significant price increase for the most affordable tobacco, there is a potential risk of stigmatising or imposing financial burdens on individuals who are not yet prepared to quit or may not be in a position to quit[45]. In the event of substantial price increases, it is therefore crucial to consider the complementary policies that could alleviate these adverse consequences. For instance, new pricing policy might be paired with additional investments in specialised stop-smoking services, offering support to those who want to quit but may be deterred by the higher costs associated with tobacco products. For

England, from 2024 the government committed an additional £350 million over 5-years (£70 million per year) to community – smoking cessation services through the "Stopping the start" programme, more than doubling existing funding[46].

4.3. Conclusion

The implementation of a minimum price for tobacco products in Wales, acting alongside UK tobacco tax policy, could effectively increase the cost of the least expensive tobacco. This, in turn, holds the potential for significant reductions in smoking rates, overall health improvements, and a decrease in health inequalities. Alongside any implemented price policy, it is important to also acknowledge the necessity of supplementary policy strategies aimed at curbing illicit trade and supporting individuals who may continue to smoke tobacco despite the price rises to quit smoking through smoking cessation programmes.

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