MODEL-BASED APPRAISAL OF ALCOHOL MINIMUM PRICING AND OFF-LICENSED TRADE DISCOUNT BANS IN SCOTLAND

A Scottish adaptation of the Sheffield Alcohol Policy Model version 2

AUTHOR CONTRIBUTIONS

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RP led the modelling study and drafted the report. YM undertook the detailed adaptation of the Sheffield Alcohol Policy Model version 2 for the Scottish population and ran all analyses. RR derived estimates of relative risk functions for health, crime and workplace outcomes. AB directed the modelling team, focusing on core adaptation decisions, testing and validation. PM was the principal investigator of the study and domain expert on alcohol, and reviewed the draft report.

CONFLICTS OF INTEREST

The authors have no conflicts of interest.

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The original data creators, depositors or copyright holders, the funders of the Data Collections (where different) and the UK Data Archive bear no responsibility for the analysis and interpretation of the Expenditure and Food Survey, Labour Force Survey, Offending Crime and Justice Survey, Scottish Health Survey, and Scottish Schools Adolescent Lifestyle and Substance Use Survey data sets downloaded from the Economic and Social Data Service and used in this study.

EXECUTIVE SUMMARY

SCOPE OF RESEARCH

From June to September 2008, the Scottish Government consulted on a range of proposals aimed at reducing levels of alcohol-related harm. The proposals included taking action to restrict promotions of alcoholic beverages and introducing a minimum retail price for a UK unit of alcohol.

Simultaneously to the Scottish consultation, the University of Sheffield was appraising pricing and promotion policy options as part of a programme of work funded by the UK Department of Health (DH) Policy Research Programme. The results of this research were published by DH in December 2008 and relate specifically to the English population.

On 2 March 2009, the Scottish Government announced specific actions in reaction to the consultation responses received, including modifications to the existing licensing regulations to prohibit discounting of alcohol and to introduce a minimum retail price per unit of alcohol. The initial threshold for the minimum price is yet to be decided, and requires in part further information on the likely impacts of such an intervention applied in a Scottish context. The existing modelling infrastructure developed for DH – known as the Sheffield Alcohol Policy Model – provides a strong platform for such an investigation and so the University of Sheffield was asked to adapt the English version of the model to a Scottish population.

The following set of policies has been prioritised for analysis:

1. What are the likely effects of introducing a minimum unit price on alcohol consumption, sales, health, crime and workplace harms in Scotland?

2. What are the likely effects of introducing a ban on price-based promotions in the off-licensed trade in Scotland?

3. What are the likely effects of introducing a minimum unit price simultaneously with a ban on price-based promotions in the off-licensed trade in Scotland?

The Sheffield Alcohol Policy Model version 2 has been adapted to a Scottish context by incorporating Scotland-specific data on levels of alcohol consumption, the prices paid by population sub-groups for different categories of alcohol and the preferences for off-licensed trade versus on-licensed trade purchasing. The model also includes Scottish data on the prevalence of alcohol-related diseases, alcohol-attributable fractions for acute conditions, the prevalence of alcohol-related crime, and levels of absenteeism and unemployment.

SUMMARY OF MODEL FINDINGS

Changes to consumption

M1. Increasing levels of minimum pricing show steep increases in effectiveness: overall estimated changes in consumption are:

Minimum price	Change in consumption
25p	-0.2%
30p	-0.5%
35p	-1.3%
40p	-2.7%
45p	-4.7%
50p	-7.2%
55p	-10.0%
60p	-12.9%
65p	-15.9%
70p	-18.9%

Note that estimates for lower minimum prices are subject to less modelling uncertainty than those for higher minimum prices. This is because the consideration of supply-side responses, and in particular a possible restructuring of the market following large mandated price increases in sections of the market, was outside the scope of the model.

M2. Lower minimum price thresholds are associated with reductions in beer/cider and spirit consumption but increases in wine consumption due to switching. For example, for a 30p threshold, beer/cider consumption reduces by 4.1 units per drinker per annum, spirit consumption reduces by 3.2 units, RTD consumption is virtually unchanged, whilst wine consumption increases by 3.3 units. Wine consumption also starts to decrease at thresholds over 45p.

M3. A total ban on off-trade discounting is estimated to change overall consumption by -3.0%. This is similar to the impact of a minimum price policy in the region 40p (-2.7%) to 45p (-4.7%). Note that the 'total ban' is assumed to prohibit all forms of price-based promotion, including straight discounting from list price in addition to multi-buy offers (such as 'buy three for the price of two'). More limited types of ban have not been appraised because the market research data available to the study does not differentiate between types of price-based promotion. If the Scottish implementation of restrictions to off-trade discounting excludes particular types of discounting then the results reported here may overestimate the effectiveness of the policy.

M4. An off-trade discount ban affects wine consumption the most: change in mean consumption per drinker per annum is estimated to be -4.9 units (-1.6%) for beer/cider, -4.6 units (-2.4%) for spirit, -0.1 units (-0.4%) for RTD and -14.9 units (-5.3%) for wine. The impact on RTD, whilst small, is greater than that seen for any of the minimum price thresholds considered.

M5. At lower minimum price thresholds, the combined effect of an off-trade discount ban and a minimum price is close to the individual effects of the two polices added together. At higher minimum price thresholds, the marginal increased effectiveness of an off-trade discount ban is reduced. Combining a discount ban with minimum pricing results in the following additional percentage point changes in consumption:

Minimum price	Change in consumption (beyond effect of minimum price)
25p	-3.0%
30p	-3.0%
35p	-2.9%
40p	-2.6%
45p	-2.3%
50p	-2.0%
55p	-1.6%
60p	-1.4%
65p	-1.2%
70p	-1.1%

Changes in levels of health, crime and workplace harm

M6. Low minimum price thresholds (eg. 25p per unit) have little impact at reducing harmful outcomes.

M7. As the minimum price threshold increases, alcohol-related hospital admissions and deaths are estimated to reduce: for example, -3,600 admissions per annum (once the full effect on the risk of harm has been realised) for a 40p threshold compared to -8,900 per annum for a 50p threshold. Most of the prevented deaths over the ten year timeframe occur in harmful drinkers. The majority of health harm reductions are in chronic diseases. This is because much of the alcohol-attributable health harm occurs in middle or older age groups at significant risk of developing and potentially dying from chronic disease.

M8. As the minimum price threshold increases, alcohol-related crimes are estimated to reduce: for example -1,100 offences per annum for a 40p threshold compared to -4,200 offences per annum for a 50p threshold. Crime reductions take place across the spectrum of violent crime, criminal damage and acquisitive crimes.

M9. Crime-related harms are estimated to reduce proportionately less than health-related harms overall: for example, for the 50p minimum price, alcohol-related hospital admissions at full effect are estimated to reduce by 13.5% whilst alcohol-related crimes reduce by 1.5%. This effect occurs because the population sub-groups most associated with alcohol-related crime tend to consume a greater proportion of their alcohol in the on-trade (when compared to the population average) and therefore are less affected by policies such as minimum pricing which impact more in the off-trade.

M10. As the minimum price threshold increases, absenteeism from work is estimated to reduce: a minimum price of 40p is estimated to reduce days absent from work by approximately 12,000 per annum, whereas for 50p the reduction is estimated at almost 35,000.

M11. As the minimum price threshold increases, unemployment due to alcohol problems is estimated to reduce (in the model unemployment is a risk factor only for harmful drinkers). For a 40p threshold, 800 avoided cases of unemployment are estimated per annum; for 50p the figure is 1,700. Note that the estimated unemployment effects are based on evidence of association studies, rather than detailed prospective analysis of the dynamic effects of employed people becoming unemployed as a consequence of their drinking behaviour, or of unemployed people becoming employed again as a consequence of reductions in alcohol consumption. The estimated effects make no assumption about the direction of these processes and there is no analysis of how the current economic climate might affect these findings.

M12. The effectiveness of an off-trade ban relative to a defined minimum price varies depending on the type of harm considered: for health outcomes the effect is close to 39p, for crime: 45p, for absenteeism: 44p, and for unemployment: 38p.

Changes to consumer spending and retailer revenue

M13. Consumer spending is estimated to increase under all policies. This is because drinkers faced with a price increase of, for example, 10% would on average reduce their consumption by less than 10%. For example, under a 40p minimum price policy, consumption is estimated to reduce by 2.7% and overall spending increases by 3.4%.

M14. Retailer revenue from the sale of alcoholic beverages is estimated to increase under all policies: the model predicts increases in both off-trade and on-trade sectors (excluding duty and VAT). Higher minimum prices lead to greater additional retail revenues; however the model does not provide a breakdown of the revenue across the supply chain. For a 40p minimum price, total retailer revenue is estimated to increase by £90m per annum.

M15. Effects on VAT and duty receipts are estimated to be relatively small, due to the counter-balancing nature of the two taxes: duty is applied to the volume of sales (which is reducing overall) but the VAT is applied to the monetary value of sales (which is increasing overall). For a 40p minimum price, total receipts are estimated to reduce by £4m.

Valuation of harm reductions

M16. As the minimum price threshold increases, the financial value of harm reductions increases[1]: the overall cumulative discounted financial value of harm reduction over ten years is estimated at £540m for a 40p threshold; this valuation more than doubles for a 50p threshold (£1.3b). The valuation continues to increase steeply as the threshold is incremented. Inclusion of a discount ban also increases the estimated savings: for example, £950m over ten years for 40p in combination with a ban.

M17. The largest financially valued component of harm reduction is the estimated impact on health-related quality of life: for example, just over half of the total £540m harm reduction in the 40p minimum price scenario is from the financial valuation of health quality adjusted life years (using £50,000 per QALY).

M18. As the minimum price threshold increases, healthcare costs are reduced: for example health and social care costs avoided due to reduced illness and admissions are estimated to be approximately £60m for the 40p threshold and £160m for the 50p threshold (in total over 10 years). The value of the health-related quality of life gains represents the largest component of health savings: estimated at £290m for 40p and £730m for 50p.

[1] The financial valuation includes direct health and social care cost savings, direct savings to the criminal justice system and victims, a financial attribution to the savings in quality adjusted life years (£50,000 for health-related QALYs and £81,000 for crime-related QALYS), and absence and unemployment savings based on average earnings.

M19. As the minimum price threshold increases, crime costs are reduced: for example, direct costs of crime reduce by approximately £10m per year for a 40p threshold compared to £30m for a 50p threshold. Similarly the value of the loss of victim quality of life changes from around £5m to £25m (using £81,000 per QALY).

Policy effects on different population sub-groups

M20. Those who buy the most alcohol are the most affected in both absolute and relative terms: changes in spending affect mostly harmful drinkers, with hazardous drinkers somewhat affected and spending for moderate drinkers affected very little. For example, for a 40p minimum price in combination with an off-trade discount ban, extra spending per drinker per annum for moderate, hazardous and harmful drinkers is estimated at £11, £58 and £137 respectively (corresponding to an average additional spend per week of £0.21 for moderate drinkers, £1.12 for hazardous drinkers and £2.63 for harmful drinkers).

M21. For all minimum price scenarios, with or without the presence of an off-trade discount ban, the majority of the health and healthcare benefits come from the harmful drinking group (eg. 62% of the reduction in hospital admissions due to a 40p minimum price) even though these represent a small minority (7%) of drinkers.

M22. Reductions in crime are spread more evenly between the three drinker groups than for health-related outcomes. For example, for an off-trade discount ban, the reduction in crime volumes per annum is estimated to comprise 700 from moderate drinkers, 1,200 from hazardous drinkers and 500 from harmful drinkers. This effect arises because a large proportion of alcohol-related crime occurs in younger people, many of whom are hazardous drinkers but very few of whom are harmful drinkers.

M23. The relative contribution of the three drinker groups to reductions in days of absence is similar to that of crime. For example, for a 40p minimum price combined with an off-trade discount ban, the reduction in absenteeism is estimated to be 8,700 days per annum for moderate drinkers, 11,700 days per annum for hazardous drinkers and 8,200 days per annum for harmful drinkers. All reductions in unemployment arise from the harmful drinking group (since only this group is assumed in the model to be at risk of alcohol-attributable unemployment).

M24. The majority of the estimated financial value of harm reduction comes from the reduction in harms associated with harmful drinkers. Of the £950m harm reduction estimated for a 40p minimum price in combination with a discount ban, close to £530m is from harmful drinkers.

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1 INTRODUCTION

1.1 BACKGROUND

From June to September 2008, the Scottish Government consulted on a range of proposals aimed at reducing levels of alcohol-related harm (Scottish Government, 2008a). The proposals included taking action to restrict promotions of alcoholic beverages (including below-cost selling), introducing a minimum retail price for a UK unit of alcohol and introducing a targeted 'social responsibility fee' for some retailers, in addition to wider availability interventions (such as raising the minimum purchase age), educational interventions (such as providing information to parents) and improved support and treatment services (such as screening and brief interventions).

Simultaneously to the Scottish consultation, the School of Health and Related Research (ScHARR) at the University of Sheffield was appraising pricing and promotion policy options as part of a programme of work funded by the UK Department of Health (DH) Policy Research Programme. Interventions considered by the study included general price rises, minimum pricing and restrictions on the magnitude of discounts in the off-licensed trade. The results of this research were published by DH in December 2008 and relate specifically to the English population (Brennan et al, 2008).

As part of the study, ScHARR also produced a set of systematic reviews on the effects of alcohol pricing and promotion (Booth et al, 2008). The review found strong and consistent evidence to suggest that price increases and taxation (assuming increases pass through to retail price) have a significant effect in reducing demand for alcohol. The review also identified a large number of studies consistently suggesting evidence for an association between increases in taxation or pricing of alcohol and reductions in harm.

On 2 March 2009, the Scottish Government announced specific actions in reaction to the consultation responses received, including modifications to the existing licensing regulations to prohibit discounting of alcohol and to introduce a minimum retail price per unit of alcohol (Scottish Government, 2009). The initial threshold for the minimum price is yet to be decided, and requires in part further information on the likely impacts of such an intervention applied in a Scottish context. The existing modelling infrastructure developed for DH – known as the Sheffield Alcohol Policy Model – provides a strong platform for such an investigation and so ScHARR was asked to adapt the English version of the model to a Scottish population.

1.2 RESEARCH QUESTIONS ADDRESSED

The following set of policies has been prioritised for analysis:

1. What are the likely effects of introducing a minimum unit price on alcohol consumption, sales, health, crime and workplace harms in Scotland?

2. What are the likely effects of introducing a ban on price-based promotions in the off-licensed trade in Scotland?

3. What are the likely effects of introducing a minimum unit price simultaneously with a ban on price-based promotions in the off-licensed trade in Scotland?

2 METHODS

This section briefly outlines the conceptual framework used as the basis of the Sheffield Alcohol Policy Model. Comprehensive details of the original version of the model (1-1), developed for the UK Department of Health in 2008, can be found in Brennan et al (2008). However the model was recently revised and extended (as version 2) in a fresh set of intervention analyses for the National Institute for Health and Clinical Excellence (NICE) in 2009, and this later version is used as the basis for the Scottish adaptation (Purshouse et al, 2009). An overview of the differences between version 1-1 and version 2 are provided here. Details of all Scotland-specific adaptations are also described. The section concludes with an itemisation of the set of policies analysed using the Scottish adaptation, in terms of both baseline analyses and sensitivity analyses.

2.1 CONCEPTUAL FRAMEWORK

A conceptual framework for modelling interventions aimed at reducing levels of alcohol misuse is shown in Figure 2.1. At its most fundamental, the conceptual framework has two components:

1. The impact of an intervention on patterns of alcohol consumption at a population level
2. The impact of changes to such patterns of alcohol consumption on societal outcomes.

This is a suitable framework for representing the impact of policies which aim to reduce harmful outcomes through reductions in alcohol consumption (such as the pricing policies considered here). It is less appropriate for policies which may reduce harm without necessarily reducing consumption, such as staggering closing times for on-licensed premises.

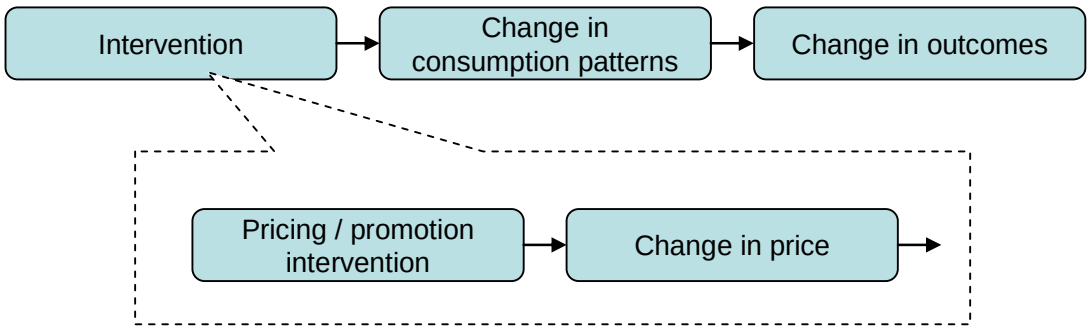


Figure 2.1: High-level conceptual framework

In this study, the first component of the conceptual model is extended further, as shown in Figure 2.1, to consider how interventions affecting alcohol pricing and price-based

promotions lead to a change in price, and how the change in price leads to a change in consumption. Other causal pathways (such as the psychology of 'getting a deal') are not explicitly represented.

The spectrum of societal outcomes to be considered by the model depends on the adopted perspective. The original study for DH considered a range of health, crime and workplace outcomes (both to individuals and to institutions in the public and private sector), based on the Cabinet Office (2003) assessment of the costs of alcohol misuse in England, together with a set of other outcomes (consumer spending, industry revenue, government revenue) that are not part of a traditional economic analysis. Other impacts, such as transitional costs to industry, lost welfare to the drinker, and outcomes for the family and friends of dependent drinkers were considered out of scope. This perspective is retained in the Scottish analysis.

2.2 SHEFFIELD ALCOHOL POLICY MODEL STRUCTURAL ASSUMPTIONS

The conceptual model described above is implemented using two distinct modelling methodologies:

- An epidemiological model of the relationship between consumption and health, crime and workplace harmful outcomes (known as the 'consumption-to-harm' model)
- An econometric model of the relationship between price and consumption (known as the 'price-to-consumption' model).

The two models are described in more detail below. Note that some of the text and schematics in this section have been extracted from Brennan et al (2008) and Purshouse et al (2009).

2.2.1 Modelling the relationship between consumption and harm

The model relates changes in the prevalence of alcohol consumption to changes in the prevalence of experiencing harmful outcomes. Risk functions relating consumption (however described) to level of risk are the fundamental components of the model.

2.2.1.1 Alcohol-attributable fractions and potential impact fractions

The methodology is similar to that used in Gunning-Scheper's (1989) *Prevent* model, being based on the notion of the alcohol-attributable fraction (AAF) and its more general form, the potential impact fraction (PIF).

The AAF of a disease can be defined as the difference between the overall average risk (or incidence rate) of the disease in the entire population (drinkers and never-drinkers) and the

average risk in those without the exposure factor under investigation (never-drinkers), expressed as a fraction of the overall average risk. For example, the AAF for breast cancer is simply the risk of breast cancer in the total female population minus the risk of breast cancer in women who have never drunk alcohol, divided by the breast cancer risk for the total female population. Thus, AAFs are used as a measure of the proportion of the disease that is attributable to alcohol. While this approach has traditionally been used for chronic health-related outcomes, such an approach can in principle be applied to other harms (not just in the health sector).

The AAF can be calculated using the following formula:

Equation 2.1: Alcohol-attributable fraction

$$AAF = \frac{\sum_{i=1}^{n} p_i \left(RR_i - 1 \right)}{1 + \sum_{i=1}^{n} p_i \left(RR_i - 1 \right)},$$

where RR_i is the relative risk of exposure to alcohol at consumption state i, p_i is the proportion of the population exposed to alcohol at consumption state i, and n is the number of consumption states.

If the reference category is abstention from alcohol then the AAF describes the proportion of outcomes that would not have occurred if everyone in the population had abstained from drinking. Thus the numerator is essentially the excess expected cases due to alcohol exposure and the denominator is the total expected cases. In situations where certain levels of alcohol consumption reduce the risk of an outcome (eg. coronary heart disease) the AAF can be negative and would describe the additional cases that would have occurred if everyone was an abstainer.

Note that there are methodological difficulties with AAF studies. One problem is in defining the non-exposed group – in one sense ‘never drinkers’ are the only correct non-exposed group, but they are rare and usually quite different from the general population in various respects. However, current non-drinkers include those who were heavy drinkers in the past (and these remain a high-risk group, especially if they have given up due to alcohol-related health problems). Several recent studies show that findings of avoided coronary heart disease risk may be based on systematic errors in the way abstainers were defined in the underlying studies. For example, Fillmore et al (2007) reanalysed data from previous studies and concluded that if ex-drinkers had been excluded from the abstainer group, then no protective effects of moderate consumption would have been observed.

The potential impact fraction (PIF) is a generalisation of the AAF based on arbitrary changes to the prevalence of alcohol consumption (rather than assuming all drinkers become abstainers). Note that a lag may exist between the exposure to alcohol and the resulting change in risk. The PIF can be calculated using the following formula:

Equation 2.2: Potential impact fraction

$$PIF = 1 - \frac{\sum_{i=0}^{n} \overline{p_i} RR_i}{\sum_{i=0}^{n} p_i RR_i},$$

where $\overline{p_i}$ is the modified prevalence for consumption state i and state 0 corresponds to abstention.

In the model, alcohol consumption in a population sub-group is described non-parametrically by the associated observations from population surveys. For any harmful outcome, risk levels are associated with consumption level for each of the observations (note that these are not person-level risk functions). The associated prevalence for the observation is simply defined by its sample weight from the survey. Therefore, the PIF is implemented in the model as:

Equation 2.3: Potential impact fraction (as implemented in the model)

$$PIF = 1 - \frac{\sum_{i=0}^{N} w_i \overline{RR_i}}{\sum_{i=0}^{N} w_i RR_i},$$

where w_i is the weight for observation i, $\overline{RR_i}$ is the modified risk for the new consumption level and N is the number of samples.

2.2.1.2 Derivation of risk functions

The impact of a change in consumption on harm was examined using four categories of risk functions:

1. Relative risk functions already available in the published literature
2. Relative risk functions fitted to risk estimates for broad categories of exposure (common for chronic health harms)
3. Relative risk function derived from AAFs for partially attributable harms
4. Absolute risk functions for wholly attributable harms.

Risk functions fitted to risk estimates for broad categories of exposure

While it may be possible to use risk estimates from broad categories of exposure assuming essentially flat relative risks across each consumption category, this does not allow the examination of the effects of relatively small shifts in patterns of consumption. Continuous risk functions were therefore fitted when risk estimates were available using polynomial curves.

One limitation of the approach is that risk estimates are available for only a few exposure groups which may underestimate or overestimate the risk beyond the last data point. This was notably the case in chronic health harms. Thus, an upper threshold was applied for conditions where the predicted estimates were unlikely to match the anticipated behaviour. Essentially, this results in a flat risk after this upper threshold. This assumption was made in the absence of consensus in the literature (Booth et al, 2008).

Deriving a relative risk function from the AAF

For some types of harms, such as crime and acute health harms, evidence is available for AAFs but not risk functions. Such evidence can be used to derive a relative risk function assuming the relationship described in Equation 2.1 since the AAF is a positive function of the prevalence of drinking and the relative risk function.

Two assumptions are necessary to compute a relative function from an AAF: (i) assumptions about the form of the curve (or risk function); (ii) assumptions about the threshold below which the relative risk is unity (ie. harm is not associated with alcohol). A linear function was selected for the analysis due to the lack of data in the literature.

The consequences of alcohol consumption tend to be distinguished in terns of those due to average drinking levels (chronic harms) and those due to levels of intoxication (acute harms). Different thresholds were thus used according to the link between harms and drinking pattern:

- The risk was assumed to start from 3 units per day for males and 2 units per day for females for harms related to mean consumption. These thresholds were derived from UK Department of Health guidelines for maximum intake (in weekly terms, 21 units for men and 14 units for women).

- The risk was assumed to start at 4 units for males and 3 units for females for harms related to peak consumption (measured as units drunk on the heaviest drinking day during the past week). These thresholds deliberately do not correspond to the

intoxication definition (more than 8 and 6 units for men and women respectively) because this would imply that the risk for those drinking at the threshold would be the same as the risk of abstainers, which contradicts published evidence on acute harms. The use of 4 units for men and 3 units for women (the recommended UK Department of Health daily limits) appears a sensible choice, since it is also unlikely that the risk starts increasing from zero units of alcohol.

The resulting relative risk function is therefore a function of consumption (for which a slope is defined) and threshold as follows:

Equation 2.4: Relative risk linear function

$$\begin{aligned} RR(c) &= 1 \text{ if } c < T \\ &= \beta(c - T) + 1 \text{ otherwise} \end{aligned}$$

where c = consumption level, T = threshold and β = slope parameter.

Estimating absolute risk functions for wholly attributable harms

While it was possible to estimate relative risk functions for most harms, it was impossible to derive such functions for wholly attributable harms (with an AAF of 100%) due to the absence of a reference group.

An alternative approach was thus adopted: absolute risk functions were calculated based on the number of events, the drinking prevalence, and the total population. As for relative risk functions, assumptions were necessary about the curve form and the starting threshold. The same assumptions as for relative risks were used for consistency.

2.2.1.3 Mortality model structure

A simplified version of the model structure for mortality is presented in Figure 2.2. The model is developed to represent the population of England in a life table. Separate life tables have been implemented for males and females.

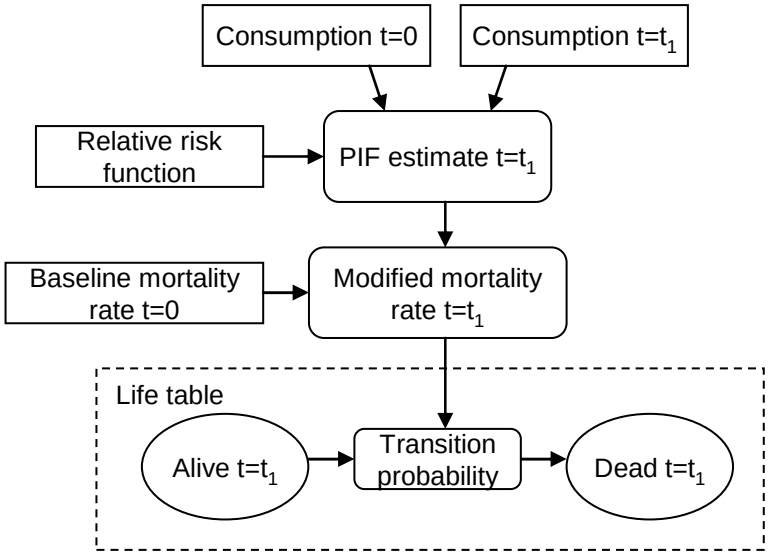


Figure 2.2: Simplified mortality model structure

The life table is implemented as a linked set of simple Markov models with individuals of age *a* transitioning between two states – alive and dead – at model time step *t*. Those of age *a* still alive after the transition then form the initial population for age *a*+1 at time *t*+1 and the sequence repeats.

The transition probabilities from the alive to dead state are broken down by condition and are individually modified via potential impact fractions over time *t*, where the PIF essentially varies with consumption (mean for chronic conditions and maximum daily for acute conditions) over time:

Equation 2.5: Potential impact fraction, as implemented in the model, showing time variation

$$PIF_t = \frac{\sum_{i=1}^{N} r_{i,t} w_i}{\sum_{i=1}^{N} r_{i,0} w_i}$$

where PIF_t is the potential impact fraction relating to consumption at time t, i = survey sample number, N = number of samples in sub-group, $r_{i,t}$ is the risk relating to the consumption of survey sample i at time t, $r_{i,0}$ is the risk at baseline, and w_i is the weight of sample i.

Note that the PIF can be decomposed to enable different population groups at baseline – for example, moderate, hazardous and harmful drinkers – to be followed separately over the course of the model.

The model computes mortality results for two separate scenarios (a baseline – implemented as 'no change to consumption' in the analysis herein – and an intervention). The effect of the

intervention is then calculated as the difference between the life tables of two scenarios: enabling the change in the total expected deaths attributable to alcohol due to the policy to be estimated.

Outcomes from the mortality modelling are expressed in terms of life years saved.

2.2.1.4 Morbidity model structure

A simplified schematic of the morbidity model is shown in Figure 2.3. The model focuses on the expected disease prevalence for population cohorts and as such is quite simple. Note that if an incidence-based approach were used instead then much more detailed modelling of survival time, cure rates, death rates and possibly disease progression for each disease for each population sub-group would be needed.

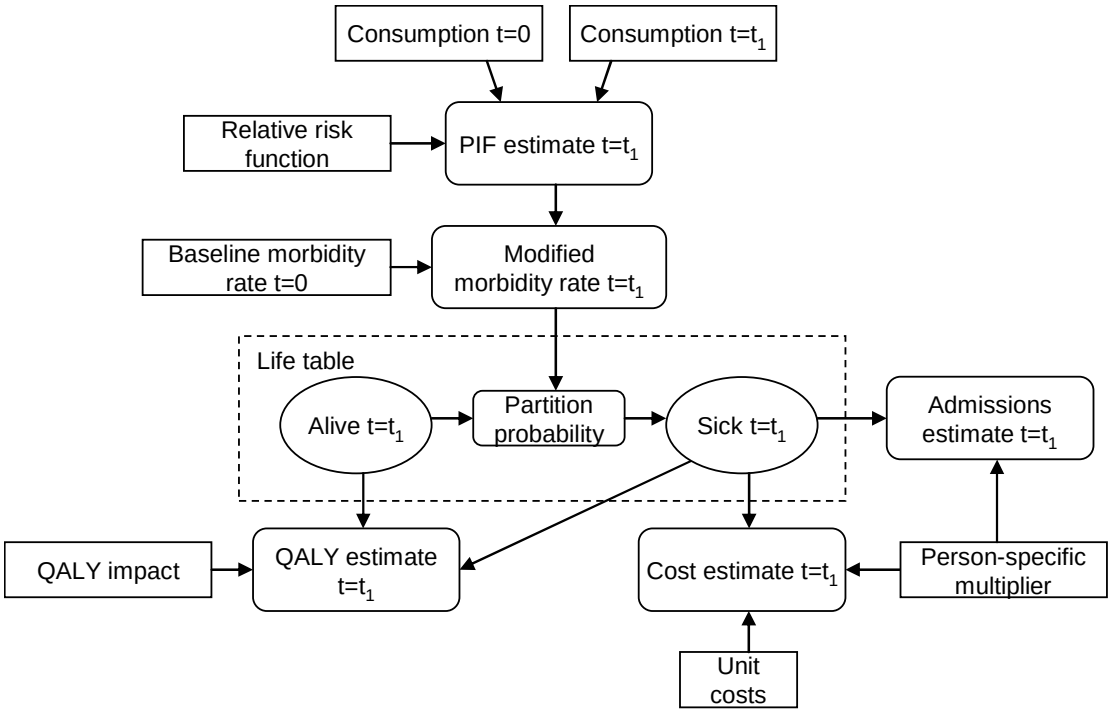


Figure 2.3: Simplified structure of morbidity model

The morbidity model works by partitioning the alive population at time *t*, rather than using a transition approach between states as previously described for the mortality model. Alive individuals are partitioned between each alcohol-related condition to be included (and an extra condition representing overall population health, not attributable to alcohol).

As in the mortality model, the PIF is calculated based on the consumption distribution at time 0 and *t* and risk functions. The PIF is then used to modify the partition rate (ie. the distribution across the alcohol-related conditions for alive individuals) to produce person-specific

sickness volumes. These volumes then form the basis for estimating both health service costs and health related quality of life.

Quality adjusted life years (QALYs) are examined using the difference in health-related quality of life (utility) in individuals with alcohol health harms and the quality of life measured in the general population (or 'normal health'). Utility scores usually range between 1 (perfect health) and 0 (a state equivalent to death), though it is possible for some extreme conditions to be valued as worse than death. The utility scores are an expression of societal preference for health states with several different methods available to estimate them. Note that because a life table approach has been adopted, the method to estimate QALY change for morbidity also encompasses the mortality valuation.

2.2.1.5 Time lag effects for chronic harms

For acute conditions it seems reasonable to assume that any change in consumption is immediately followed by a change in the risk of harm. However for chronic conditions this relationship may not be instantaneous: a 'time lag' may exist between change in consumption and change in risk.

Only one study (Norstrom & Skog, 2001) was identified that provided evidence on population-level time lags. The authors suggest an overall lag of 4 or 5 years (for combined chronic and acute conditions). More evidence was found concerning the time lag between onset of high levels of consumption and onset of disease in individuals, although the exact onset of such consumption is recognised as difficult to establish. The lag to full effect varies (by condition) between 5 and 15 years for most conditions; for certain cancers the lags were reported to be between 15 and 20 years. Given the lack of consensus, a mean lag of 10 years is assumed for all chronic conditions in the model with linear progression to 'full effect' on risk.

2.2.1.6 Crime model structure

The crime model considers how changes in consumption impact on changes in the volume of offences per annum, for a defined set of offence types. As for the health model, the main mechanism is the PIF, which is calculated based on the consumption distribution at time 0 and time *t* and an estimated risk function. The PIF is then applied directly to the baseline number of offences to give a new volume of crime for time *t*. The model uses the consumption distribution for the intake in the heaviest drinking day in the past week (peak consumption) since crime is assumed to be a consequence of acute drinking rather than average drinking (and so there is no time delay between change in exposure to alcohol and subsequent change in risk of committing a crime).

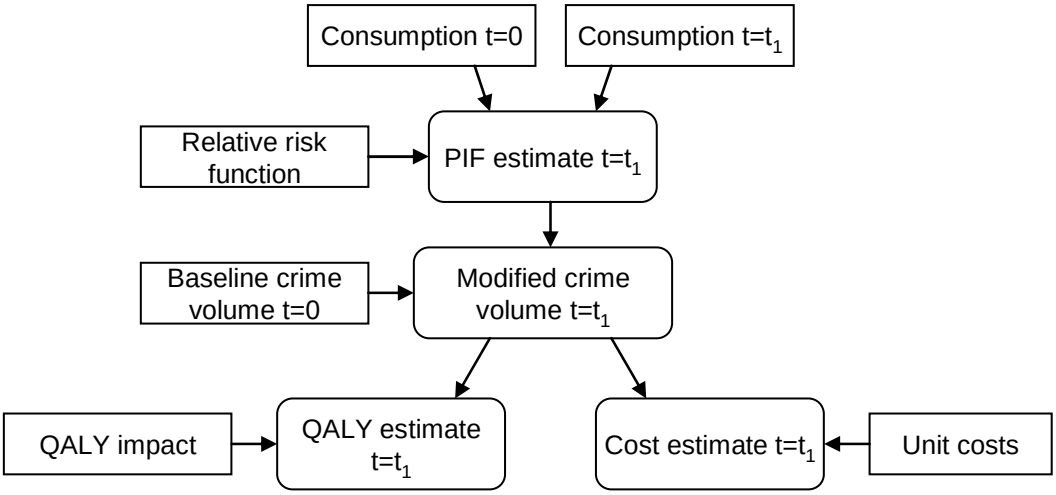


Figure 2.4: Simplified structure of crime model

Outcomes are presented in terms of number of offences and associated cost of crime and QALY impact to the victim. The outcomes from 'do nothing' and the policy scenario are then compared to estimate the incremental effect of the implementation of the policy.

2.2.1.7 Workplace model structure

The model focuses on two types of workplace harm: absenteeism from work and unemployment. The Cabinet Office (2003) study on the cost of alcohol-related harm also considered lost outputs due to early death; however these are excluded from the model to avoid double-counting the social value of life years lost already estimated in the health and crime models.

The absenteeism model is linked to the unemployment component in a dynamic approach (such that a change in consumption is associated with a change in the working population and thus the absenteeism in this population) as shown in Figure 2.5. Based on baseline consumption, consumption at time *t* and risk functions derived above, a PIF is calculated and applied to the absence rate. Absenteeism is assumed to be related to acute drinking and so maximum daily intake is applied as the consumption measure and it is assumed that there is no time delay between change in exposure to alcohol and subsequent change in risk of absenteeism. A similar approach is adopted for unemployment, although the latter is assumed to be associated with average drinking.

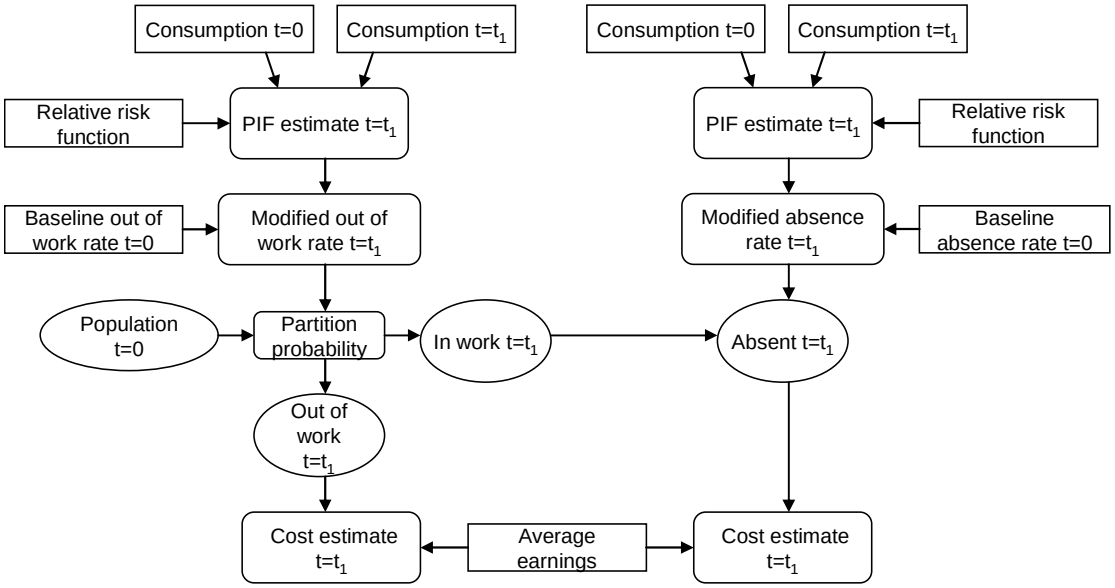


Figure 2.5: Simplified structure of workplace model

The number of days absent from work is then calculated based on the absence rate, the mean number of days worked and the number of working individuals in each age group/gender sub-group. Days absent from work are then valued using daily gross income.

Outcomes for two scenarios – do nothing and policy implementation – are computed separately. The difference is then taken to estimate the incremental effect of the policy.

2.2.2 Modelling the relationship between price and consumption

The pricing model uses a simulation framework based on classical econometrics. The fundamental concept is that (i) a current consumption dataset is held for the population; (ii) a policy gives rise to a mean change in price; (iii) a change in consumption is estimated from the price change using the price elasticity of demand; (iv) the consumption change is used to update the current consumption dataset. Due to data limitations, the change in levels of peak consumption has to be estimated indirectly via a change in mean consumption.

2.2.2.1 Drinking preferences for population sub-groups

The population sub-groups – defined by gender, age group and baseline consumption status – form the building blocks of the price-to-consumption model. For each sub-group, a 16 element beverage preference vector is defined. The vector describes how mean consumption is split, on average, between different categories of beverage. Beverage categories are defined by three dimensions: beverage type (ie. beer/cider, wine, spirit and RTD), retail type (ie. off-trade or on-trade) and price point (ie. higher and lower, about a threshold defined as the 25th percentile of the cumulative price distribution). Hence beverage

categories range from lower-priced off-trade beer/cider through to higher-priced on-trade RTD.

For each beverage category, a detailed price distribution is defined in terms of £ per unit. Since pricing policies may affect price distributions in quite complex ways, a non-parametric representation is preferred.

Impact of a minimum price on the price distribution

For each price observation that is below the defined minimum price threshold, the price is inflated to the threshold.

Impact of a discount ban on the price distribution

For each price observation that is at a discounted price, the price is inflated to the corresponding list price. Since individual price observations are not defined as promoted or otherwise (rather this is based on separate evidence), some detailed manipulation of the distribution is required as shown below:

- For every off-trade price observation (with price *P*, purchase volume *V* and sample weight *W*) for beverage *Y*:
    - Find the corresponding promotional price range *R*
    - Look-up the proportion of sales of beverage *Y* in range *R* that are promoted (0<=*d*<=1, where *d*=0 indicates zero sales on promotion in this price range and *d*=1 indicates all sales are on promotion in this price range)
    - If *d*>0, split price observation into two separate observations: {*P*, *d***V*, *d***W*} and {*P*, (1-*d*)**V*, (1-*d*)**W*}
    - For the first observation, look-up the conditional distribution of list prices associated with promotions at this sales price [c_R,…,c_n] where *n* is the total number of price ranges, where 0<=c_i<=1 with associated multipliers to list price [m_R,…,m_n]. Split the observation into further separate observations if c_i>0
    - For each new observation, *i*, adjust the price *P* to the minimum permitted price $P=P*m_i$
    - Replace the original observation with the new set of observations in the price distribution.

2.2.2.2 Econometric model

An econometric model has been developed to examine the relationship between the purchasing of units of the 16 beverage categories, and of other non-durable goods, (on the left hand side) and their prices, the income of the individual and covariates around gender, ethnicity, age, education, region, household composition, household size and employment status (on the right hand side). The econometric model is described in more detail in Brennan et al. (2008). The resulting system of equations is analysed using iterative three-stage least-squares regression to estimate coefficients for all relevant terms. Elasticities of demand can be computed for the various products from these coefficients. In particular, a 16x16 matrix of price elasticities is obtained.

The elasticities provide information on the responsiveness of the population to price changes. They inform the scale of expected reduction in purchasing of a category of alcohol if its price changes. They also inform the knock-on effects on purchasing of other products, via the so-called 'cross elasticities' for price, enabling an assessment of the potential scale of switching to increased purchasing of a second category of alcohol (eg. lower-priced off-trade wine) if the price of the first category of alcohol (eg. lower-priced on-trade beer/cider) increases.

Elasticities can also be estimated for income, enabling an assessment of the potential change in purchasing of alcohol with changes to income.

Note that insufficient data is available to estimate elasticity matrices that are specific to Scotland. Therefore the existing elasticities for England are reused in this analysis. The matrix for moderate drinkers is shown in Table 2.1. The matrix for the aggregation of hazardous and harmful drinkers is shown in Table 2.2. The change in consumption for each beverage category for each sub-group can then be calculated using the matrices together with the changes in mean price for each beverage category faced by the sub-group.

	Consumption		Off								On							
			Beer		Wine		Spirit		RTD		Beer		Wine		Spirit		RTD	
Price			Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Off	Beer	Low	**-0.4030**	0.0061	0.0029	0.0075	0.0008	0.0043	0.0006	0.0036	0.0066	0.0157	0.0011	0.0003	0.0083	0.0040	0.0010	0.0042
		High	0.0014	**-0.4378**	0.0022	0.0095	0.0006	0.0052	0.0005	0.0026	0.0080	0.0215	0.0009	0.0013	0.0101	0.0055	0.0012	0.0048
	Wine	Low	0.0020	0.0106	**-0.4346**	0.0034	0.0008	0.0034	0.0002	0.0019	0.0069	0.0140	0.0002	-0.0002	0.0067	0.0033	0.0003	0.0037
		High	0.0014	0.0097	0.0010	**-0.4729**	0.0007	0.0037	0.0005	0.0015	0.0069	0.0176	0.0001	0.0012	0.0073	0.0042	0.0008	0.0044
	Spirit	Low	0.0002	0.0147	0.0027	0.0121	**-0.5140**	0.0030	0.0003	0.0008	0.0068	0.0176	-0.0008	-0.0009	0.0059	0.0029	0.0008	0.0031
		High	0.0022	0.0083	0.0013	0.0082	0.0005	**-0.5237**	0.0002	0.0017	0.0068	0.0200	0.0009	-0.0003	0.0067	0.0035	0.0008	0.0034
	RTD	Low	0.0010	0.0276	-0.0003	0.0007	0.0003	0.0039	**-0.3234**	0.0006	0.0085	0.0129	0.0016	-0.0016	-0.0422	0.0030	0.0010	0.0032
		High	0.0013	0.0119	0.0001	0.0067	0.0013	0.0025	0.0002	**-0.3433**	0.0068	0.0090	0.0001	0.0019	0.0084	0.0045	0.0011	0.0035
On	Beer	Low	0.0019	0.0101	0.0033	0.0078	0.0009	0.0053	0.0006	0.0022	**-0.4017**	0.0322	0.0016	0.0015	0.0101	0.0076	0.0025	0.0063
		High	0.0023	0.0128	0.0019	0.0100	0.0007	0.0052	0.0005	0.0025	0.0126	**-0.4211**	0.0017	-0.0002	0.0193	0.0104	0.0014	0.0064
	Wine	Low	0.0005	0.0027	0.0006	0.0033	0.0004	0.0032	0.0000	0.0004	0.0104	0.0224	**-0.2614**	0.0012	0.0078	0.0037	0.0012	0.0028
		High	0.0006	0.0051	0.0009	0.0055	0.0004	0.0037	0.0004	0.0007	0.0057	0.0061	0.0002	**-0.2799**	0.0025	0.0053	0.0013	0.0045
	Spirit	Low	0.0004	0.0017	0.0014	0.0051	0.0003	0.0001	0.0015	0.0012	-0.0069	-0.0117	-0.0005	0.0004	**-1.0965**	0.0046	-0.0022	-0.0048
		High	0.0006	0.0021	0.0007	0.0018	0.0002	-0.0002	0.0000	0.0002	-0.0001	-0.0111	-0.0030	-0.0068	0.0013	**-0.1559**	0.0013	-0.0007
	RTD	Low	0.0006	0.0030	0.0000	-0.0008	0.0004	0.0006	-0.0001	0.0010	0.0075	-0.0021	0.0011	0.0050	0.0136	-0.0086	**-0.3477**	0.0067
		High	0.0005	0.0025	-0.0005	0.0023	0.0003	0.0034	0.0001	0.0007	0.0064	0.0030	0.0004	0.0048	0.0010	-0.0051	0.0013	**-0.3356**

Table 2.1: Price elasticity of demand for 16 beverage categories (moderate drinkers)

	Consumption		Off								On							
			Beer		Wine		Spirit		RTD		Beer		Wine		Spirit		RTD	
Price			Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Off	Beer	Low	**-0.5834**	0.0138	0.0102	0.0377	0.0028	0.0069	0.0000	0.0011	0.0086	0.0321	-0.0006	0.0042	0.0138	0.0039	0.0011	0.0035
		High	0.0044	**-0.6040**	0.0082	0.0377	0.0038	0.0052	0.0007	0.0001	0.0083	0.0305	0.0010	0.0030	0.0098	0.0071	0.0015	0.0049
	Wine	Low	0.0092	0.0258	**-0.5883**	0.0117	0.0011	0.0088	0.0007	0.0041	0.0162	0.0393	-0.0002	0.0005	0.0119	0.0038	0.0013	0.0034
		High	0.0065	0.0269	0.0046	**-0.6431**	0.0028	0.0086	0.0002	0.0013	0.0166	0.0512	-0.0001	0.0020	0.0122	0.0072	0.0016	0.0030
	Spirit	Low	0.0009	0.0192	0.0014	0.0219	**-0.6160**	0.0018	0.0001	0.0008	0.0070	0.0269	0.0011	0.0035	0.0012	-0.0005	0.0010	0.0000
		High	0.0029	0.0094	0.0043	0.0185	0.0013	**-0.6545**	-0.0003	0.0007	0.0117	0.0321	0.0007	0.0023	0.0005	-0.0005	0.0005	0.0006
	RTD	Low	0.0139	-0.0181	0.0167	0.0222	0.0003	0.0062	**-0.4318**	-0.0001	0.0016	-0.0016	-0.0030	-0.0003	-0.0428	0.0051	0.0005	-0.0001
		High	0.0019	-0.0042	0.0115	0.0030	0.0000	0.0092	0.0000	**-0.4245**	-0.0001	0.0125	0.0000	0.0012	0.0079	0.0039	0.0002	0.0005
On	Beer	Low	0.0088	0.0305	0.0111	0.0473	0.0039	0.0092	0.0004	0.0029	**-0.6665**	0.0726	-0.0037	0.0075	0.0211	0.0021	-0.0003	0.0060
		High	0.0089	0.0327	0.0118	0.0476	0.0047	0.0071	0.0011	0.0011	0.0194	**-0.6561**	-0.0008	-0.0018	0.0276	0.0018	0.0009	0.0041
	Wine	Low	0.0038	0.0006	0.0000	0.0043	0.0014	0.0079	-0.0003	-0.0013	0.0003	0.0044	**-0.3930**	0.0009	0.0392	-0.0012	0.0051	-0.0007
		High	0.0044	0.0125	0.0015	0.0118	0.0016	0.0062	-0.0006	0.0018	0.0108	-0.0107	0.0005	**-0.3884**	-0.0256	-0.0106	0.0010	0.0050
	Spirit	Low	0.0040	0.0127	0.0064	0.0261	0.0002	-0.0014	0.0002	0.0010	-0.0068	-0.0254	0.0019	-0.0024	**-2.2207**	0.0102	-0.0088	-0.0001
		High	0.0042	0.0020	0.0047	0.0145	-0.0004	-0.0024	-0.0017	-0.0018	-0.0016	-0.0199	-0.0005	0.0008	0.0177	**-0.2368**	-0.0006	-0.0023
	RTD	Low	0.0040	0.0062	-0.0008	0.0012	-0.0032	0.0013	0.0003	0.0001	0.0010	0.0416	0.0050	-0.0009	-0.2048	0.0016	**-0.4428**	0.0094
		High	0.0009	0.0003	0.0055	0.0127	0.0007	0.0003	0.0004	0.0000	0.0082	0.0042	0.0005	0.0110	0.0121	-0.0059	0.0035	**-0.4414**

Table 2.2: Price elasticity of demand for 16 beverage categories (hazardous and harmful drinkers)

2.2.2.3 Regression model linking mean consumption to peak consumption

The Expenditure & Food Survey provides evidence on purchasing of alcohol by individuals in both the on-trade and off-trade, but does not contain a measure of binge drinking. Whilst it would seem sensible to assume that on-trade purchasing is directly associated with consumption, it is clearly not reasonable to assume that off-trade purchases are consumed on the same day and by the individual purchasing the alcohol. EFS data can therefore provide only a very incomplete picture of binge drinking, which is essentially an estimate of the extent of 'on-trade bingeing' ignoring any off-trade consumption. This has significant limitations as it is recognised that significant proportions of binge drinking occurs at home or involves a combination of both on-trade and off-trade consumption (Hughes et al, 2008). Attempts to produce on-trade binge elasticities failed due to insufficient observations in the data. Therefore it has not been possible to construct estimates of the price elasticity of bingeing behaviour (in terms of either frequency or magnitude of bingeing).

For a population survey containing data on both mean consumption and peak daily consumption, it is possible to map the scale of bingeing from the mean intake using standard statistical regression model techniques, using age and gender as covariates. Separate linear models are constructed for each drinker type due to the anticipated differences in behaviour of moderate, hazardous and harmful drinkers. The models predict the peak daily intake from the average daily intake of alcohol. The ratio of predicted peak intakes for mean consumption levels before and after an intervention are then used to adjust the actual baseline peak consumption level for each sample in the model.

2.3 SCOTTISH ADAPTATION

This section describes in detail the adaptations of the existing English policy model to enable estimates to be made for the population of Scotland.

2.3.1 Quantification of alcohol consumption

Population surveys provide the main approach to assessing alcohol consumption in the population of Scotland, and serve as detailed non-parametric distributions of alcohol consumption patterns in the model.

2.3.1.1 Scottish Health Survey

The Scottish Health Survey (SHeS) is a cross-sectional household survey of around 11,500 individuals living in households in Scotland. Respondents are asked how often over the last year they have drunk each of a number of different types of drink, and how much they have "usually" drunk on any one day. The method used for calculating average weekly

consumption is to multiply the number of units of each type drunk on a usual drinking day by the frequency with which it was drunk. Respondents are also asked about the number of units consumed on the heaviest drinking day in the past week. The SHeS raw data on volumes of alcohol consumption is analysed and transformed into units of alcohol consumed.

The main questions on alcohol consumption allow estimation for each individual of:

- Number of weekly units consumed (split by beer/cider, wine, spirit and RTD) – used as a proxy for average consumption
- Units consumed on the 'heaviest drinking day' during the past week – a measure of peak consumption which provides a proxy for heavy episodic drinking (also known as binge drinking)
- Detailed population distribution by characteristics such as age, sex and income.

Data has been obtained and analysed for 2003, which is the most recent year available from the UK Data Archive (Joint Health Surveys Unit et al, 2006). To take account of changes in the strength of some alcohol products, the Office for National Statistics (Goddard, 2007) undertook a review of the existing methodology for converting volumes into units in the General Household Survey and the Heath Survey for England (the SHeS uses the same methodology as the latter). These updated conversion factors have been used in analysing the SHeS 2003 data. Market research data obtained by the Scottish Government (2008b) suggests that the volume of ethanol purchasing in Scotland have changed little between 2005 and 2007, so use of the SHeS data as a baseline should be a reasonably robust assumption.

In 2003, 8,611 individuals had data for both the mean weekly consumption and the maximum consumption one day over the past week, excluding outliers (individuals with a mean weekly intake over 210 units were removed after inspection of the data). Drinkers aged 16 years old and over in Scotland had an average weekly intake of 20.6 units for males and 10.3 units for females. The numbers of units drunk on the heaviest drinking day are 7.0 and 4.1 respectively. Figure 2.6 and Figure 2.7 present the distributions of weekly and peak alcohol consumption for males and females in Scotland. The 2003 age and gender-specific distribution of alcohol consumption for adults (18+ years) in Scotland is presented in Appendix 1.

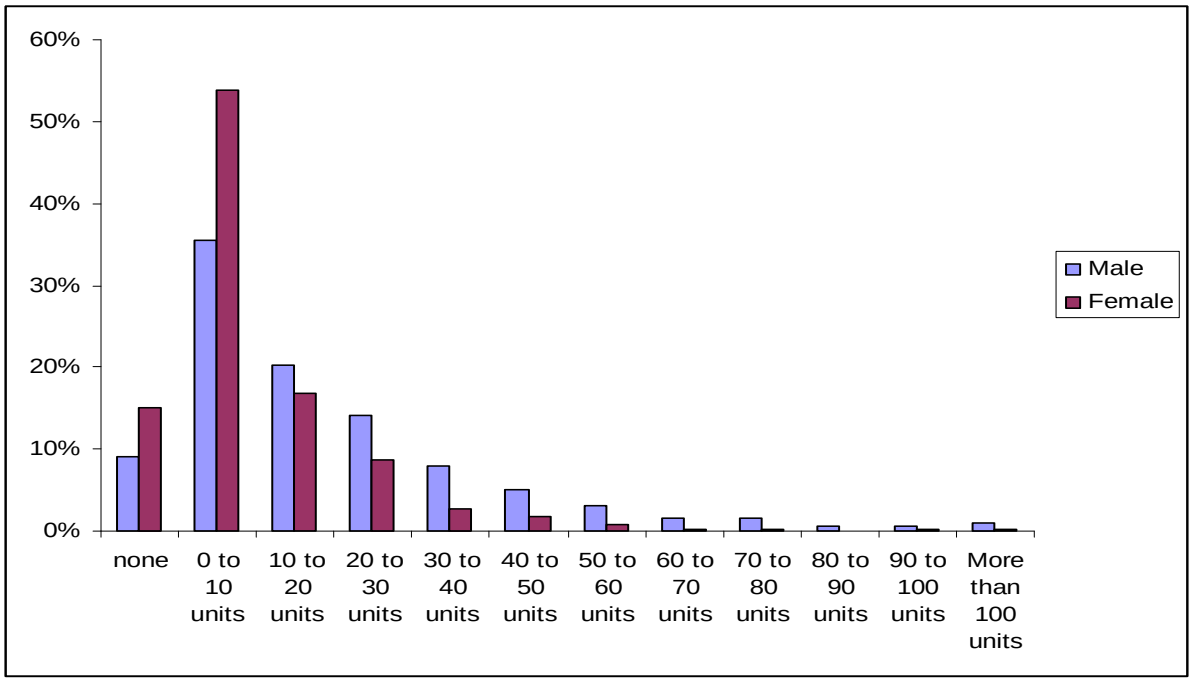


Figure 2.6: Distribution of the mean weekly intake among individuals aged 16 years old and over (SHeS 2003)

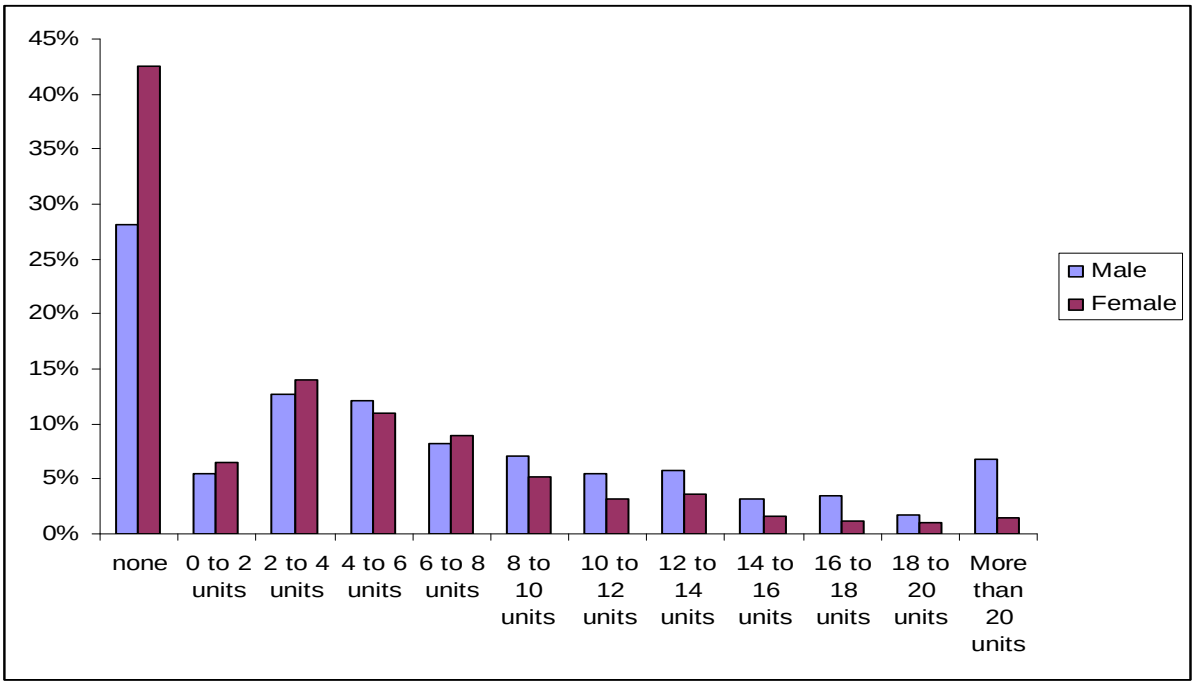


Figure 2.7: Distribution of the maximum unit drunk one day the last week among individuals aged 16 years old and over (SHeS 2003)

2.3.1.2 Scottish Schools Adolescent Lifestyle and Substance Use Survey

Information on childhood drinking is available from the Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS), a cross-sectional school survey. Data has been extracted from the UK Data Archive for SALSUS 2006 (BMRB, 2008). The survey covers

secondary school pupils in years S2 and S4, with ages ranging from 12 to 15 years. Since the model includes 11 to 15 years old as the youngest population sub-group, the SALSUS data provides a suitable representation of this group in Scotland. The 2006 survey includes data from 23,180 pupils in Scotland. Analogous to the analysis of adults' alcohol consumption based on SHeS, updated conversion factors were also applied for alcohol consumption in children.

In 2006, the alcohol consumption questions related to:

- the frequency of drinking (from never to almost every day)
- past-week quantity consumed broken down by beverage type.

SALSUS does not cover information on peak drinking. Therefore the daily maximum consumption was estimated based on the weekly consumption of each child. The peak consumption model (see Section 2.3.2.4) was applied, assuming that the relationship between weekly and peak consumption of 11 to 15 year olds is the same as for 16 to 17 year olds.

2.3.2 Modelling the relationship between price and consumption

The existing econometric framework is reused, but with Scottish data where available. The transaction level diary data in the Expenditure & Food Survey contains detailed purchasing information for the Scottish population, although the sample size is considerably smaller than the equivalent English data (Office for National Statistics and Department for Environment Food and Rural Affairs, 2008). Market research data on price distributions and price-based promotion distributions was not available for the purposes of this study, and therefore indirect approaches were necessary in constructing Scottish price and price-based promotion distributions for the model.

2.3.2.1 Price distribution

The baseline information for the Scottish price distributions for each population sub-group in the model, broken down into beer/cider, wine, spirit and RTD in both the on-trade and off-trade, comes from the EFS. However, from the previous analysis for DH and NICE it is known that the EFS distribution differs – in some cases substantially – from gold standard price distribution data available from AC Nielsen (2008) and CGA Strategy (2009). In particular, the prevalence of very cheap alcohol is lower in the market research data than in the self-reported survey. Therefore it is prudent to adjust the raw Scottish EFS data prior to use for policy analyses.

For each beverage type in both the off-trade and on-trade, the scaling factor between the cumulative raw English distribution and the cumulative raw Scottish distribution is calculated at deciles of the distribution. The price distribution used in the existing English model (raw EFS, adjusted for both Nielsen and CGA data) is then modified using the series of scaling factors to produce a derived Scottish distribution. This latter distribution is then decomposed into the population sub-groups and used directly in the Scottish model. The before and after price distributions in both England and Scotland are shown in Figure 2.8 and Figure 2.9 for the off-trade and on-trade respectively.

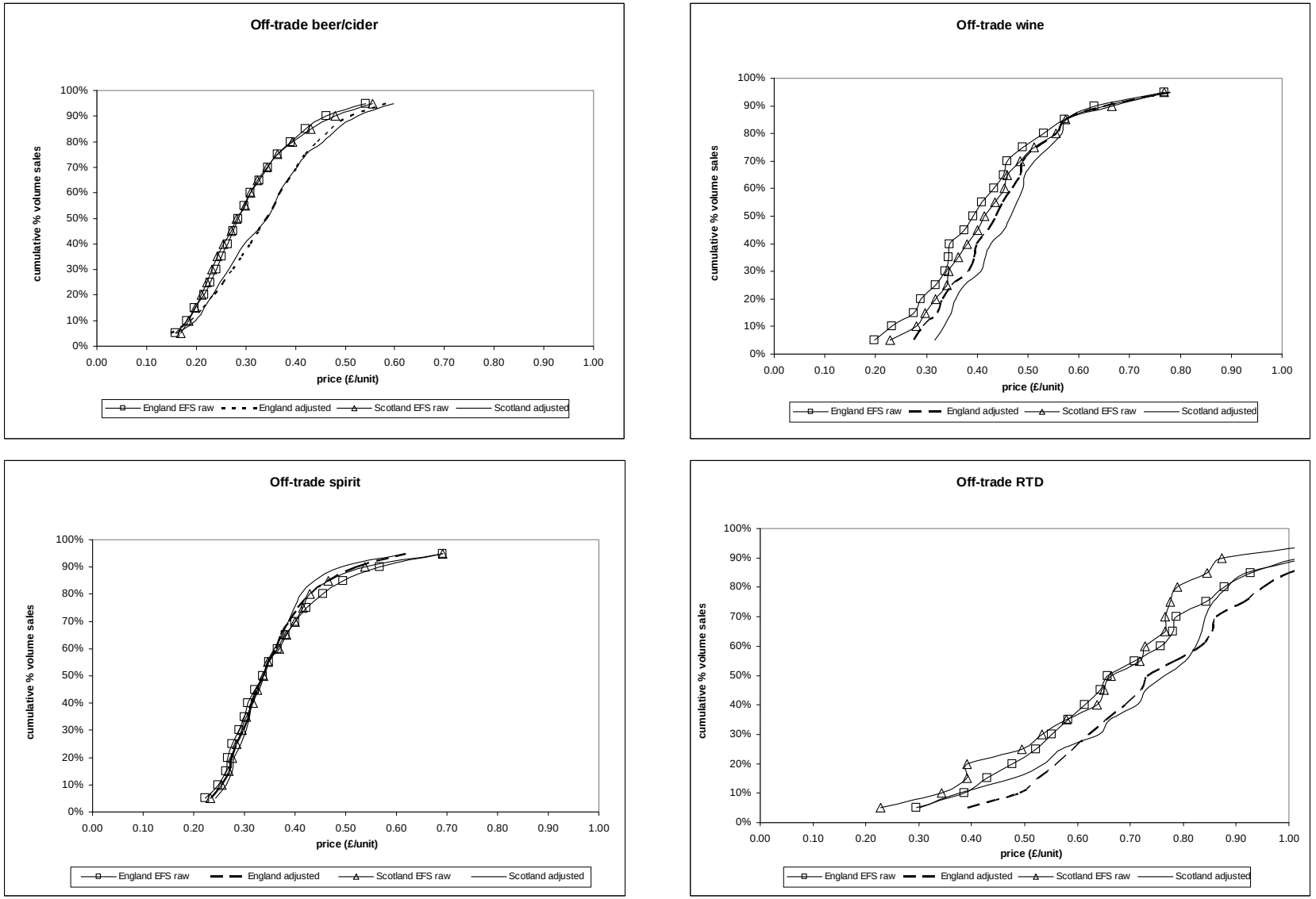


Figure 2.8: Comparison of Scotland and England price distributions for off-trade beverages

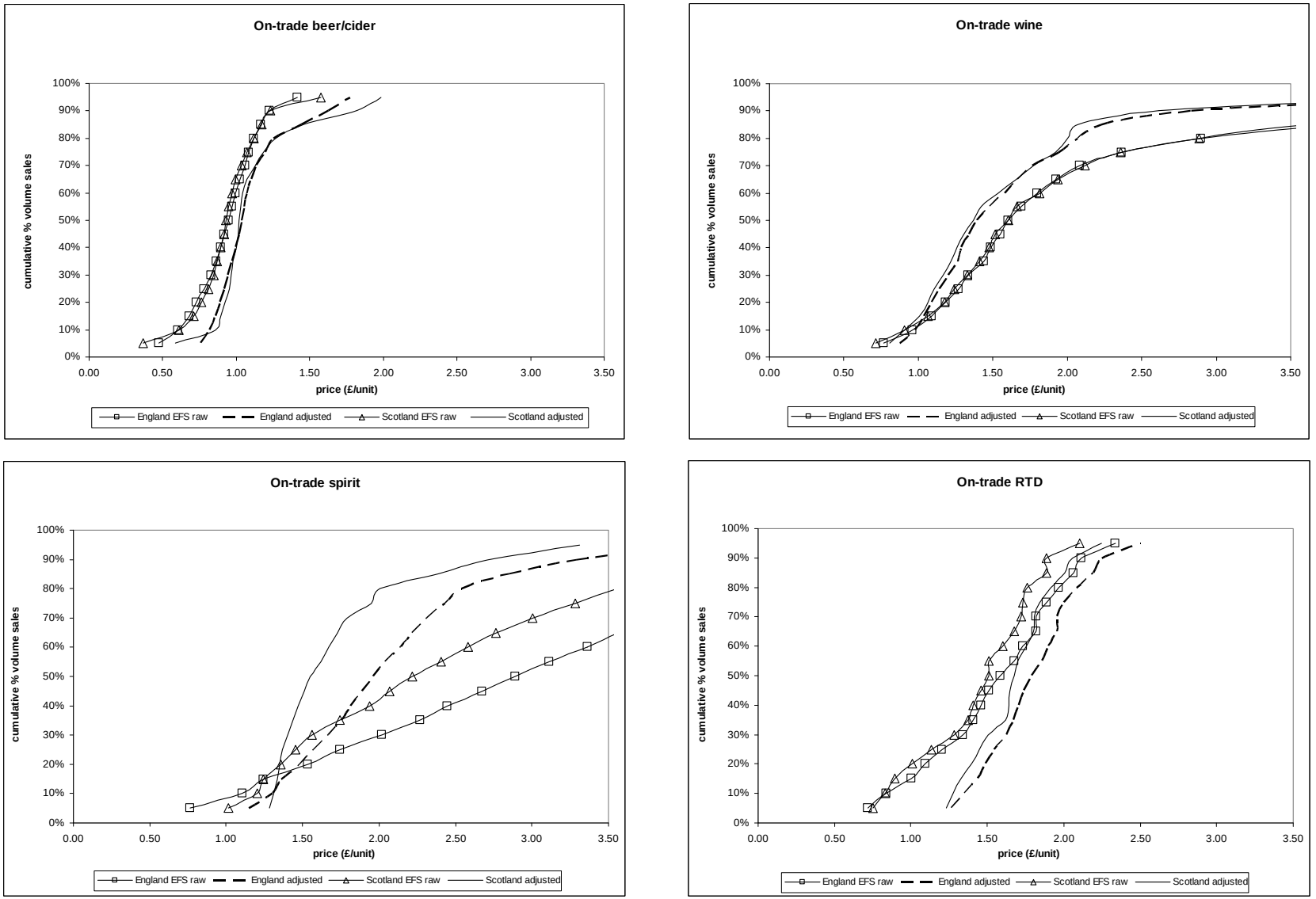


Figure 2.9: Comparison of Scotland and England price distributions for on-trade beverages

Most beverage types have similar price distributions between Scotland and England based on the comparison of EFS raw price data. The prices are higher for off-trade wine and lower for off-trade RTD in Scotland compared to England. Scotland has significantly lower prices for on-trade spirit. By examining the EFS data, it can be seen that England has a higher proportion of 'spirits with mixer' (which are more expensive in terms of unit price than spirit alone) sold under the on-trade spirit category (65% for England versus 45% for Scotland) which may explain the difference.

2.3.2.2 Price-based promotion distribution

In the England model, the extent of off-trade discounts are represented as four matrices (beer/cider, wine, spirit and RTD) derived from Nielsen data (see Table 2.3 for the discount matrix for off-trade beer/cider; matrices for other beverage categories are provided in Appendix 2). The price ranges shown have inclusive lower bounds and exclusive upper bounds. Given the actual sales price, the matrix provides the distribution of the original list prices for the fraction of products on promotion. For example, of all beer/cider sold at between 25p per unit and up to (but not including) 30p per unit (fourth row of Table 2.3), 63.5% was sold at a discount. Of this promoted quantity, 30.8% had a list price in the same price bracket, whereas 34.6% had a list price in the 30p to 35p bracket, 19.9% in the 35 to 40p bracket and so on.

				List price (£ per unit)									
Sales price (£ per unit)	**Proportion on promotion (%)**		**Sales price (£ per unit)**	**0-0.15**	**0.15-0.2**	**0.2-0.25**	**0.25-0.3**	**0.3-0.35**	**0.35-0.4**	**0.4-0.5**	**0.5-0.6**	**0.6-0.7**	**>0.7**
0-0.15	24.8%		**0-0.15**	47.3%	42.4%	8.8%	1.0%	0.4%	0.1%	0.1%	0.0%	0.0%	0.0%
0.15-0.2	46.9%		**0.15-0.2**	0.0%	46.5%	35.0%	5.4%	8.4%	4.1%	0.6%	0.0%	0.0%	0.0%
0.2-0.25	67.1%		**0.2-0.25**	0.0%	0.0%	26.3%	32.3%	24.2%	11.2%	5.3%	0.7%	0.0%	0.0%
0.25-0.3	63.5%		**0.25-0.3**	0.0%	0.0%	0.0%	30.8%	34.6%	19.9%	9.5%	5.1%	0.1%	0.0%
0.3-0.35	48.3%		**0.3-0.35**	0.0%	0.0%	0.0%	0.0%	42.7%	36.7%	16.9%	2.8%	0.8%	0.1%
0.35-0.4	44.8%		**0.35-0.4**	0.0%	0.0%	0.0%	0.0%	0.0%	49.5%	42.2%	6.5%	0.7%	1.1%
0.4-0.5	43.5%		**0.4-0.5**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	24.4%	5.0%	1.6%
0.5-0.6	44.7%		**0.5-0.6**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.4%	29.6%	4.1%
0.6-0.7	23.2%		**0.6-0.7**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	36.7%
>0.7	16.8%		**>0.7**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table 2.3: Extent of off-trade beer/cider discounts based on Nielsen data for England & Wales (derived from data © Nielsen 2008)

As no off-trade discount information for Scotland was available to the study, we assumed that the Scottish market is characterised by the same pattern of off-trade discounting as the English market, in terms of the cumulative price distribution. This assumption is operationalised by adjusting the original set of 10 price ranges for England so that the corresponding cumulative price distribution ranges match for England and Scotland. Table 2.4 shows the original England price ranges and adjusted price ranges for Scotland. For each range shown, the lower bounds are inclusive of the price shown and the upper bounds are exclusive.

England price bins (£)		**Scotland price bins (£)**							
		Beer/Cider		**Wine**		**Spirit**		**RTD**	
Lower	**Upper**	**Lower**	**Upper**	**Lower**	**Upper**	**Lower**	**Upper**	**Lower**	**Upper**
0.00	0.15	0.00	0.19	0.00	0.23	0.00	0.21	0.00	0.04
0.15	0.20	0.19	0.23	0.23	0.28	0.21	0.23	0.04	0.04
0.20	0.25	0.23	0.29	0.28	0.30	0.23	0.27	0.04	0.06
0.25	0.30	0.29	0.37	0.30	0.35	0.27	0.33	0.06	0.29
0.30	0.35	0.37	0.43	0.35	0.41	0.33	0.39	0.29	0.30
0.35	0.40	0.43	0.52	0.41	0.46	0.39	0.45	0.30	0.48
0.40	0.50	0.52	0.62	0.46	0.56	0.45	0.64	0.48	0.51
0.50	0.60	0.62	0.74	0.56	0.63	0.64	0.84	0.51	0.72
0.60	0.70	0.74	0.92	0.63	0.72	0.84	0.99	0.72	0.83
0.70	none	0.92	none	0.72	none	0.99	none	0.83	none

Table 2.4: Original English and mapped Scottish price ranges, used to estimate a price-based promotion distribution for Scotland

2.3.2.3 Preferences for on/off trade alcohol

The preferences for on/off trade alcohol purchasing (ie. the proportions of total consumption of each beverage that are purchased in the off-trade or on-trade) for each sub-group population are an important model input. To retain the Scottish specific preferences for on/off trade alcohol from the EFS raw data, the weights of each sample that describes the derived Scottish price distribution were adjusted so that they correctly reflected Scottish preferences.

Beverage type	**Scotland preference for off-trade alcohol**	**England preference for off-trade alcohol**
Beer/Cider	47.3%	42.7%
Wine	93.2%	92.2%
Spirit	86.4%	88.9%
RTD	40.2%	37.3%
Total	**72.7%**	**68.7%**

Table 2.5: Comparison of preference for off-trade alcohol between Scotland and England

2.3.2.4 Relationship between change in mean consumption and change in peak consumption

As in the England model, a standard statistical regression model was built to map the scale of peak consumption from the mean daily alcohol consumption. Regression models are built separately for moderate, hazardous and harmful drinkers and the coefficients are presented in Appendix 3. For illustration, the three models are plotted for males aged 25 to 34 years in Figure 2.10.

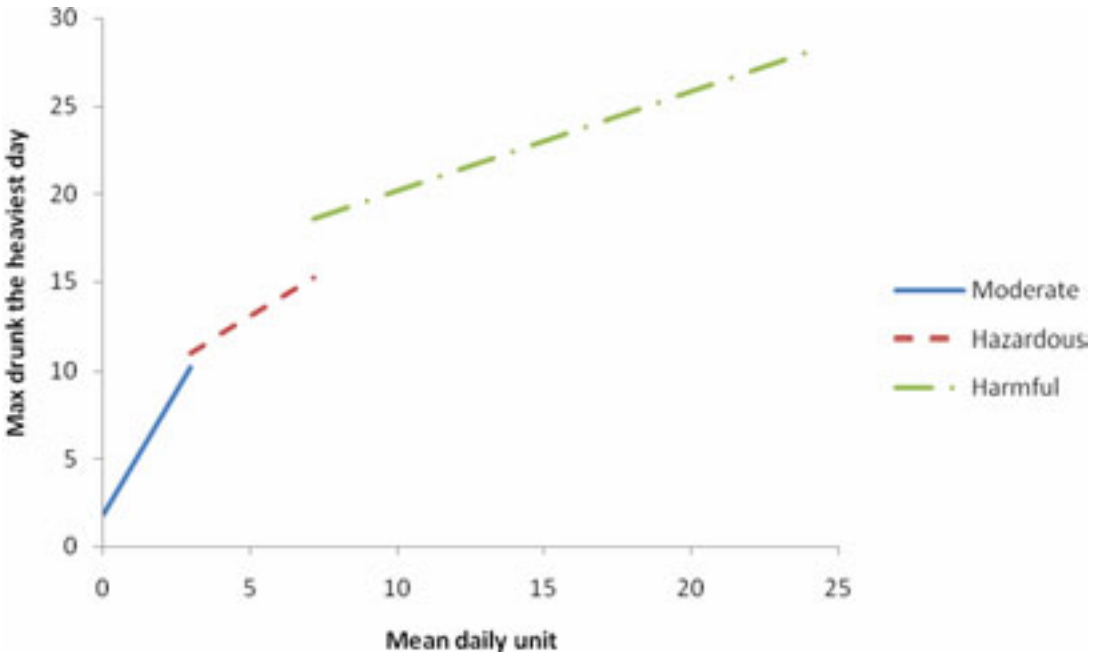


Figure 2.10: Illustrative example in males aged 25 to 34 years old

2.3.3 Modelling the relationship between consumption and harm

The Scottish model uses the existing model structure (based on the potential impact fraction) and broad scope of harms, but uses a distinct set of alcohol-related health conditions and crimes, together with mortality, disease prevalence, crime, absence and unemployment rates for the Scottish population.

2.3.3.1 Health conditions in the model

The model includes 50 alcohol attributable health conditions based on those specified in the ISD-Scotland report (Grant et al, 2009)[2], as shown in Table 2.6. The health conditions are

[2] Two conditions in the ISD report – fetal alcohol syndrome (Q86.0) and fetus and newborn affected by maternal use of alcohol (P04.3, O35.4) – were excluded from analysis since the health outcomes do

classified as wholly attributable to alcohol (ie. with 100% AAFs) or partially attributable (ie. with <100% AAFs). The conditions can also be classified as chronic (due to prolonged intake of alcohol) or acute (due to acute alcohol intake).

	Condition	ICD-10 code	Cons-umpti-on type	Source of AAF or risk function
Wholly attributable chronic conditions	Alcohol induced pseudo Cushing's Syndrome	E24.4	Mean	N/A
	Wernicke's encephalopathy	E51.2	Mean	
	Degeneration of nervous system due to alcohol	G31.2	Mean	
	Alcoholic polyneuropathy	G62.1	Mean	
	Alcoholic myopathy	G72.1	Mean	
	Alcoholic cardiomyopathy	I42.6	Mean	
	Alcoholic gastritis	K29.2	Mean	
	Alcoholic liver disease	K70	Mean	
	Alcohol induced chronic pancreatitis	K86.0	Mean	
Wholly attributable acute conditions	Mental and behavioural disorders due to alcohol	F10	Peak	N/A
	Excessive blood level of alcohol	R78.0	Peak	
	Toxic effect of alcohol	T51.0, T51.9	Peak	
	Accidental poisoning by and exposure to alcohol	X45	Peak	
	Intentional self poisoning by, and exposure to alcohol	X65	Peak	
	Poisoning by and exposure to alcohol, undetermined intent	Y15	Peak	
	Evidence of alcohol involvement determined by blood alcohol level	Y90	Peak	
	Evidence of alcohol involvement determined by level intoxication	Y91	Peak	
Partially attributable chronic conditions	Cancer of the lip oral cavity and pharynx	C00-C06, C09-10, C12-14	Mean	Corrao et al (2004)
	Oesophageal cancer	C15	Mean	Corrao et al (2004)
	Colorectal cancer	C18-C20	Mean	Corrao et al (2004)
	Cancer of the liver and intrahepatic bile ducts	C22	Mean	Corrao et al (2004)
	Laryngeal cancer	C32	Mean	Corrao et al (2004)
	Breast cancer	C50	Mean	Hamajima et al (2002)
	Epilepsy and Status epilepticus	G40-G41	Mean	Rehm et al (2004)
	Hypertensive diseases	I10-I15	Mean	Corrao et al (2004)
	Coronary heart disease	I20-25	Mean	Corrao et al (2000)
	Cardiac arrhythmias	I47, I48	Mean	Gutjahr et al (2001)
	Haemorrhagic stroke	I60-I62	Mean	Corrao et al (2004)
	Ischaemic stroke	I63-I66	Mean	Corrao et al (2004)
	Oesophageal varices	I85, I98.2	Mean	Corrao et al (2004)
	Mallory-Weiss syndrome	K22.6	Mean	English et al (1995)

not relate primarily to the drinker (and are therefore out of scope). Malignant neoplasm of the lip and malignant neoplasm of the oral cavity and pharynx are reported as separate conditions in the ISD report but are merged for the purposes of the modelling.

	Condition	ICD-10 code	Cons-umpti-on type	Source of AAF or risk function
	Unspecified liver disease	K73, K74.0-2, K76.0, K76.9	Mean	Corrao et al (2004)
	Portal hypertension	K76.6	Mean	Corrao et al (2004)
	Cholelithiasis	K80	Mean	Gutjahr et al (2001)
	Acute and other chronic pancreatitis	K85, K86.1	Mean	Corrao et al (2004)
	Psoriasis	L40 excl. L40.5	Mean	Gutjahr et al (2001)
	Spontaneous abortion	O03	Mean	Gutjahr et al (2001)
Partially attributable acute conditions	Pedestrian traffic accidents	V$$	Peak	All Grant et al (2009)
	Road traffic accidents - non pedestrian	V$	Peak	
	Water transport injuries	V90-V94	Peak	
	Fall injuries	W00-W19	Peak	
	Occupational work/machine injuries	W24-W31, W45	Peak	
	Firearm injuries	W32-W34	Peak	
	Drowning	W65-W74	Peak	
	Inhalation and ingestion of food causing obstruction of respiratory tract	W78-W79	Peak	
	Fire injuries	X00-X09	Peak	
	Accidental excessive cold	X31	Peak	
	Accidental poisoning by and exposure to noxious substances	X40-X49 excl. X45	Peak	
	Intentional self-harm\Event of undetermined intent	X60-X84, Y10-Y34, Y87.0, Y87.2	Peak	
	Assault	X85-Y09, Y87.1	Peak	

Remarks:

V$: V12-V14 (.3 -.9), V19.4-V19.6, V19.9, V20-V28 (.3 -.9), V29-V79 (.4 -.9), V80.3-V80.5, V81.1, V82.1, V82.9, V83.0-V86 (.0 -.3), V87.0-V87.9, V89.2, V89.3, V89.9

V$$: V02-V04 (.1, .9), V06.1, V09.2, V09.3

Table 2.6: Health conditions included in the model

Compared to the England model, the health conditions of diabetes mellitus and methanol poisoning are excluded. New conditions for the Scottish model include Wernicke's encephalopathy, portal hypertension, excessive blood level of alcohol, accidental poisoning by and exposure to noxious substances, intentional self poisoning by, and exposure to alcohol, poisoning by and exposure to alcohol, undetermined intent, evidence of alcohol involvement determined by blood alcohol level and evidence of alcohol involvement determined by level intoxication.

2.3.3.2 Mortality model parameters

The mortality rates are derived from GROS 2007 data. For partially attributable chronic conditions, the relative risk functions for both mortality and morbidity are based on the same body of literature as the England model (see Table 2.6). For wholly attributable conditions (acute and chronic), absolute risk functions are estimated using the same method as for the England model (see Section 2.3.2.3 of the England report), considering the Scottish mortality

and morbidity rates and the Scottish specific maximum daily (for acute conditions) or mean (for chronic conditions) drinking prevalence. For partially attributable acute conditions, relative risk functions of both mortality and morbidity are estimated applying Scottish AAFs (based on those reported by Grant et al (2009)) and Scottish specific peak drinking prevalence. The AAFs and risk functions are given in Appendix 4 and 5.

2.3.3.3 Morbidity model parameters

The morbidity rates are derived from Scottish 2007 hospitalisation data (see Appendix 4). An individual may have more than one alcohol-attributable discharge in one year, and more than one alcohol-attributable diagnosis within a discharge. The ISD-Scotland method to avoid double counting has been applied (Grant et al, 2009):

- For each individual, identify all alcohol-attributable diagnosis codes from their discharge records
- For each individual, identify the earliest hospital discharge in the year
- In the event of there being two or more alcohol-attributable diagnoses within the same discharge, select the condition with the highest position within discharge record.

The model requires inputs on costs, utilities and hospital admission multipliers for each health condition. Since Scottish-specific data is not available, the England model inputs were used. For the health conditions that exist in both the Scotland and England models, the costs, utilities and multipliers are assumed to be the same. The few Scottish health conditions that did not appear previously in the England model have been matched to similar health conditions already included in the model, following consultation with clinical experts (see Table 2.7). It is assumed that the matched conditions share the same costs, utilities and multipliers. For the new health conditions of “evidence of alcohol involvement determined by blood alcohol level” and “evidence of alcohol involvement determined by level intoxication”, it is assumed that these are supplementary codes that have been used due to a lack of a primary diagnosis (eg. the person is drunk, but otherwise in normal health). Therefore, for these two conditions, the utilities are assumed to be the same as in the general population (ie. no loss of utility); the costs are assumed to be the same as A&E admission cost as per “ethanol poisoning”; and the multiplier is also assumed to be the same as ethanol poisoning. The utilities, costs and multipliers of Scottish health conditions are given in Appendix 6 and 7.

Scottish new conditions	ICD-10 (Scotland)	Matched England conditions	ICD-10 (England match)
Wernicke's encephalopathy	E51.2	Degeneration of nervous system due to alcohol	G31.2
Portal hypertension	K76.6	Unspecified liver disease	K73, K74
Excessive blood level of alcohol	R78.0	Ethanol poisoning	T51.0
Accidental poisoning by and exposure to noxious substances	X40-X49 excl. X45	Accidental poisoning by exposure to alcohol	X45
Intentional self poisoning by, and exposure to alcohol	X65	Ethanol poisoning	T51.0
Poisoning by and exposure to alcohol, undetermined intent	Y15	Ethanol poisoning	T51.0
Evidence of alcohol involvement determined by blood alcohol level	Y90		
Evidence of alcohol involvement determined by level intoxication	Y91		

Table 2.7: Matching Scottish new health conditions with existing conditions

2.3.3.4 Crime model parameters

The definition of crime categories in Scotland is different from England. Therefore, a different set of crime categories were used in the Scottish model (see Table 2.8). Apart from the police recorded crime volumes, other crime model inputs (including multipliers, costs and AAFs) are based on English data. Matching between Scottish crime categories and existing modelled English crime categories is necessary to apply the England model inputs.

Scottish crime categories in the model	**Existing modelled English crime categories**
Serious assault, other non-sexual crimes of violence	Causing death by dangerous driving under the influence, driving after having consumed excess alcohol; More serious wounding; Violent disorder; Homicide; Less serious wounding
Robbery	Robbery; Robbery - business
Total sexual offences	Total sexual offence
Housebreaking - Domestic dwelling	Burglary in a dwelling
Housebreaking - Domestic non-dwelling & other	Burglary not in a dwelling
Theft from a motor vehicle	Theft from vehicle
Theft of a motor vehicle	Aggravated vehicle taking; Theft of vehicle
Shoplifting	Theft from shops
Other theft	Theft from the person; Theft of a pedal cycle; Other theft
Fire-raising	Criminal damage
Vandalism etc	Criminal damage
Minor assault	Assault without injury

Table 2.8: Matching Scottish crime categories with existing English crime categories

The police recorded crime volumes were based on the latest data collected by the Scottish Government (Scottish Government, 2008c). The multipliers used to uplift the recorded crime volumes to actual crime volumes were based on the British Crime Survey (BCS) 2003, following Dubourg et al (2005), and are shown in Appendix 8. The Scottish Crime and Victimisation Survey (SCVS) was not used to derive the multipliers due to the small sample size and large confidence intervals. Figure 2.11 illustrates the confidence intervals (re-scaled to have a mean of unity) of some crime multipliers estimated based on BCS 2007/8 (Kershaw et al, 2008) and SCVS 2006 (Brown and Bolling, 2007).

As for England, the police reported crime volumes do not provide a breakdown of offences by age and gender. Therefore, the method used in the England model was adopted to split the crimes into different population sub-groups (see Section 2.6.2 of Brennan et al (2008) for further details). Appendix 9 presents the breakdown of total estimated offences by age and gender in Scotland. These raw volumes are shown graphically in Figure 2.12 and Figure 2.13. Note that a large contribution to the total volume of offences for each crime is made by males and people aged under 25.

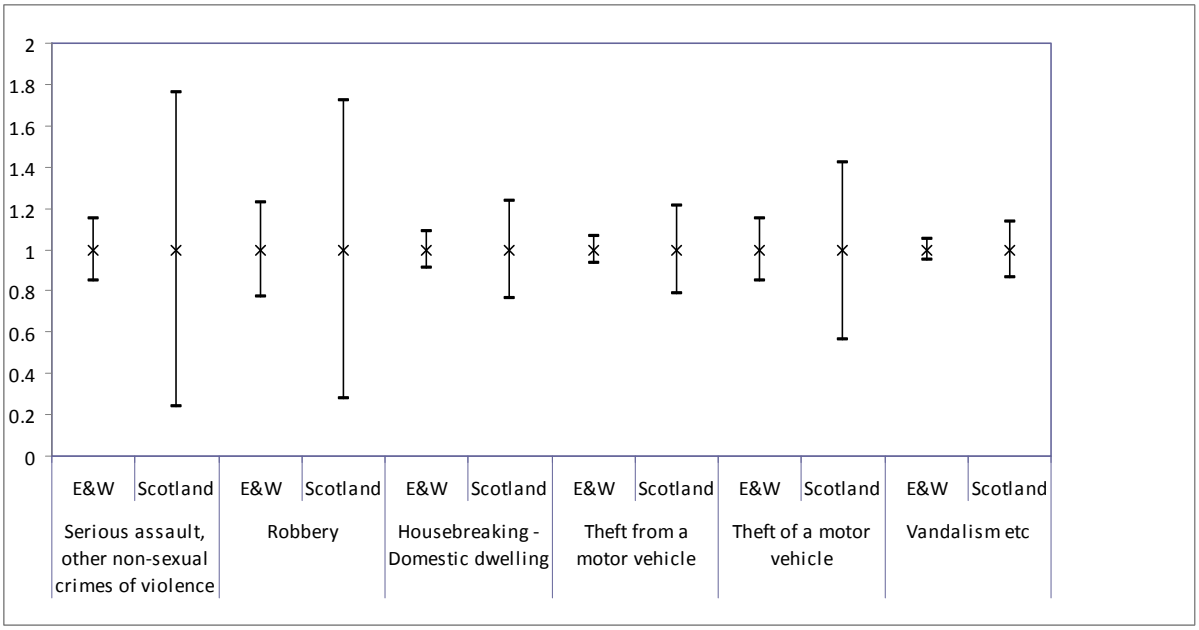


Figure 2.11: Comparison of confidence intervals of estimated crime multipliers between BCS 2007/8 and SCVS 2006.

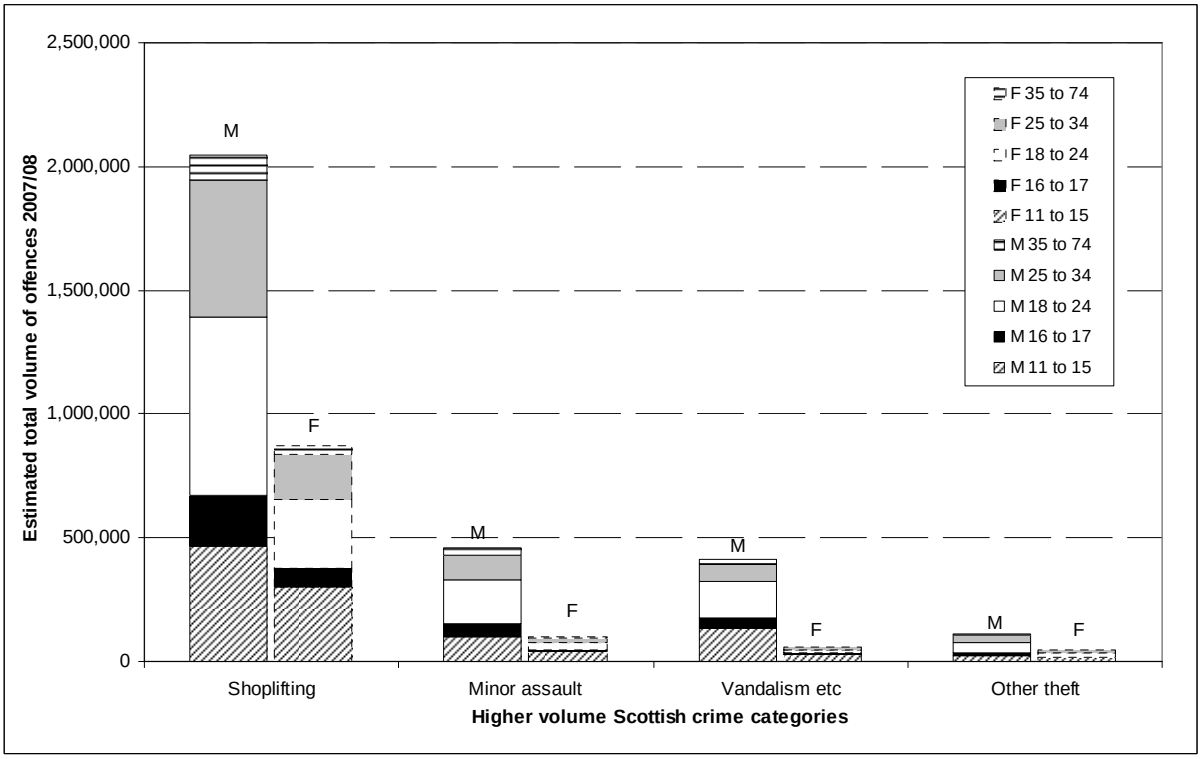


Figure 2.12: Estimated total crime volumes for Scotland for higher volume crime categories included in the model (greater than 100,000 offences per annum)

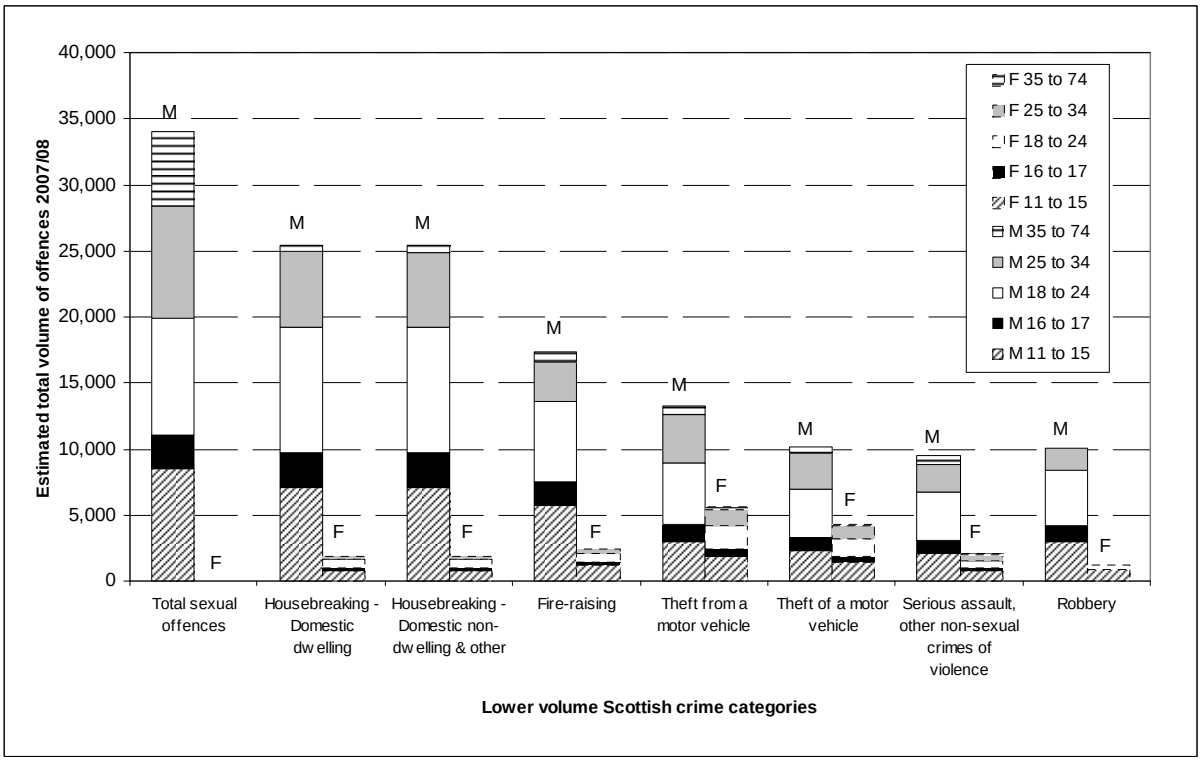


Figure 2.13: Estimated total crime volumes for Scotland for lower volume crime categories included in the model (fewer than 100,000 offences per annum)

The AAFs of each crime category due to alcohol consumption were estimated using the youth offending data from the 2006 Offending Crime and Justice Survey (OCJS) – a survey of people aged from 10 to 25 living in private households in England and Wales (Home Office et al, 2008). The baseline AAFs were based on the same assumption as adopted by the England model: ie. drinking is mentioned as one of the reasons for committing the crime. Sensitivity analyses were performed using AAFs based on (1) drinking was mentioned as the *only* reason for committing the crime (providing a lower bound for AAFs) and (2) alcohol was consumed before committing the crime, regardless of whether or not it was mentioned as a reason for the crime (providing an upper bound for AAFs). Table 2.9 gives the three sets of AAFs, using the different assumptions, by gender and age group.

Sub-group	OCJS crime category	Matched Scottish crime categories	AAF – drunk as one reason for crime (baseline)	AAF - drunk as the only reason for crime	AAF - drunk at time of crime
Males under 16	All violent offences	Total sexual offences	1.7%	0.4%	5.5%
	Assault with injury	Serious assault	3.0%	0.0%	6.9%
	Assault without injury	Minor assault	0.7%	0.7%	4.4%
	Vehicle related thefts	Theft from/of motor vehicle	0.0%	0.0%	17.2%
	Other thefts	Robbery, housebreaking, shoplifting, other theft	0.6%	0.0%	2.9%
	Criminal damage	Fire-raising, vandalism etc	3.7%	1.9%	13.0%
Females under 16	All violent offences	Total sexual offences	4.8%	0.0%	9.5%
	Assault with injury	Serious assault	6.7%	0.0%	12.0%
	Assault without injury	Minor assault	2.8%	0.0%	6.9%
	Vehicle related thefts	Theft from/of motor vehicle	27.3%	0.0%	27.3%
	Other thefts	Robbery, housebreaking, shoplifting, other theft	2.2%	0.7%	10.8%
	Criminal damage	Fire-raising, vandalism etc	12.1%	3.0%	24.2%
Males 16 to 25	All violent offences	Total sexual offences	17.0%	5.9%	42.7%
	Assault with injury	Serious assault	16.3%	5.2%	48.1%
	Assault without injury	Minor assault	17.8%	6.8%	36.4%
	Vehicle related thefts	Theft from/of motor vehicle	6.8%	4.5%	31.8%
	Other thefts	Robbery, housebreaking, shoplifting, other theft	3.6%	2.3%	9.1%
	Criminal damage	Fire-raising, vandalism etc	40.3%	27.4%	58.1%
Females 16 to 25	All violent offences	Total sexual offences	13.8%	5.9%	28.9%
	Assault with injury	Serious assault	14.6%	4.9%	31.7%
	Assault without injury	Minor assault	12.9%	7.1%	25.7%
	Vehicle related thefts	Theft from/of motor vehicle	38.5%	0.0%	46.2%
	Other thefts	Robbery, housebreaking, shoplifting, other theft	2.2%	0.7%	3.7%
	Criminal damage	Fire-raising, vandalism etc	30.8%	7.7%	46.2%

Table 2.9: Crime AAFs used in the Scottish model (derived from OCJS 2006)

The relative risk functions were estimated based on the AAFs and the Scottish peak consumption prevalence using a similar method as for acute partially attributable health conditions (see Figure 2.14 to Figure 2.17 and Appendix 10). Note that although some of the relative risks appear substantial (particularly for females), they may be associated with low absolute volumes of crime (as shown previously in Figure 2.12 and Figure 2.13).

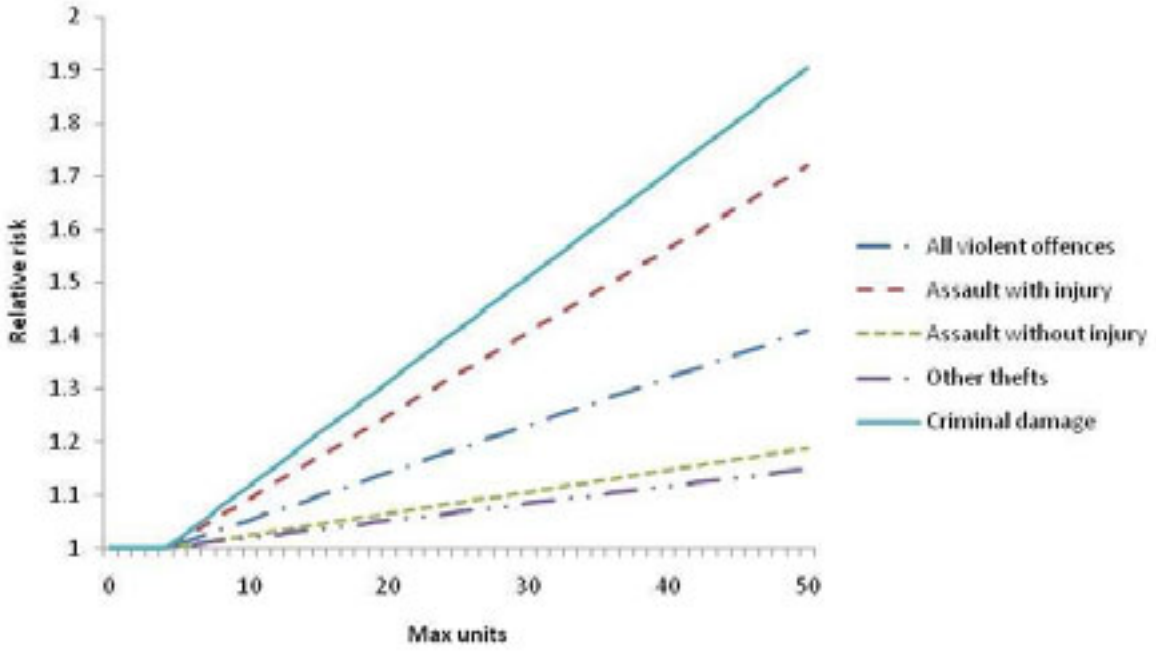


Figure 2.14: Relative risk functions in males aged less than 16

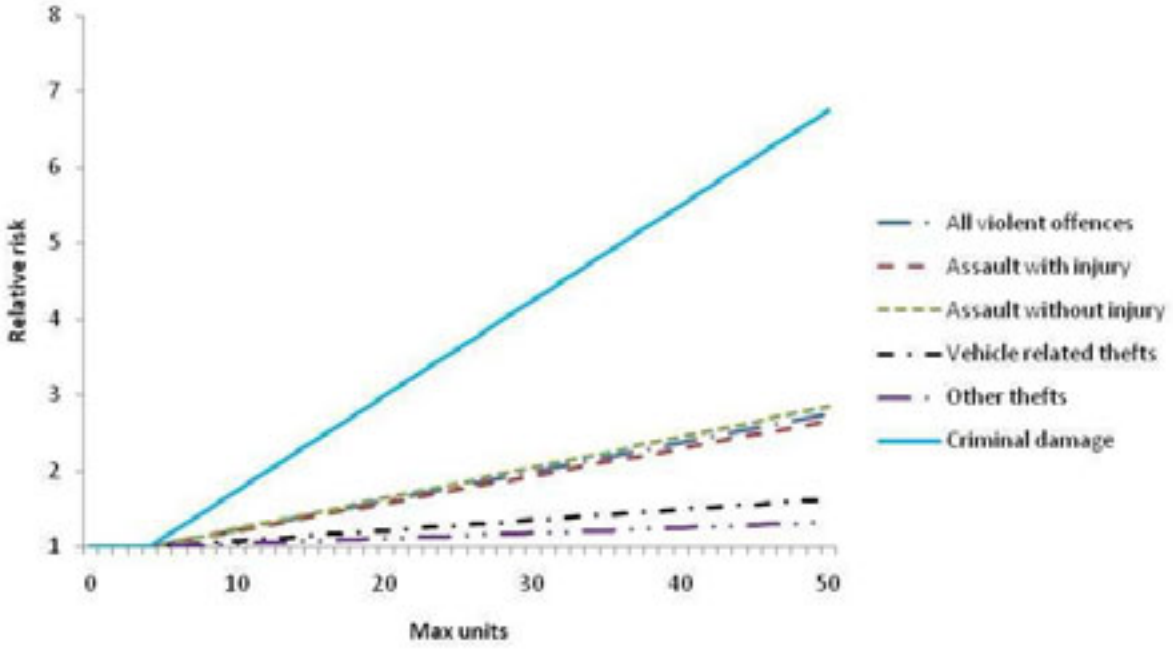


Figure 2.15: Relative risk functions in males aged 16 to 25

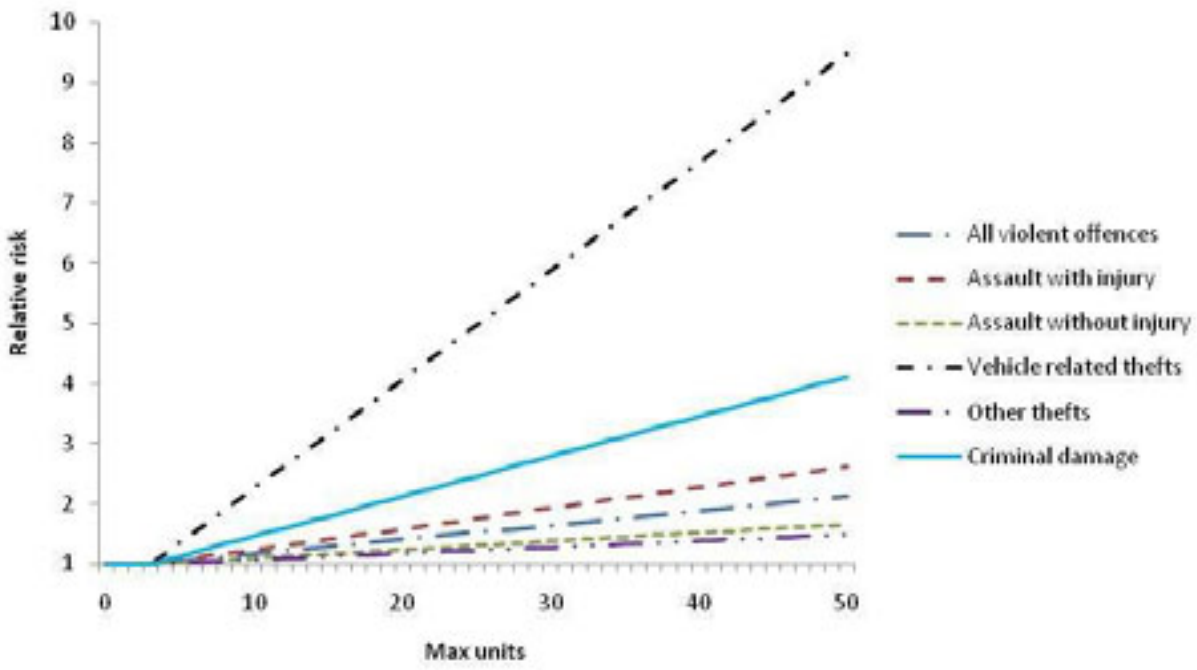


Figure 2.16: Relative risk functions in females aged less than 16

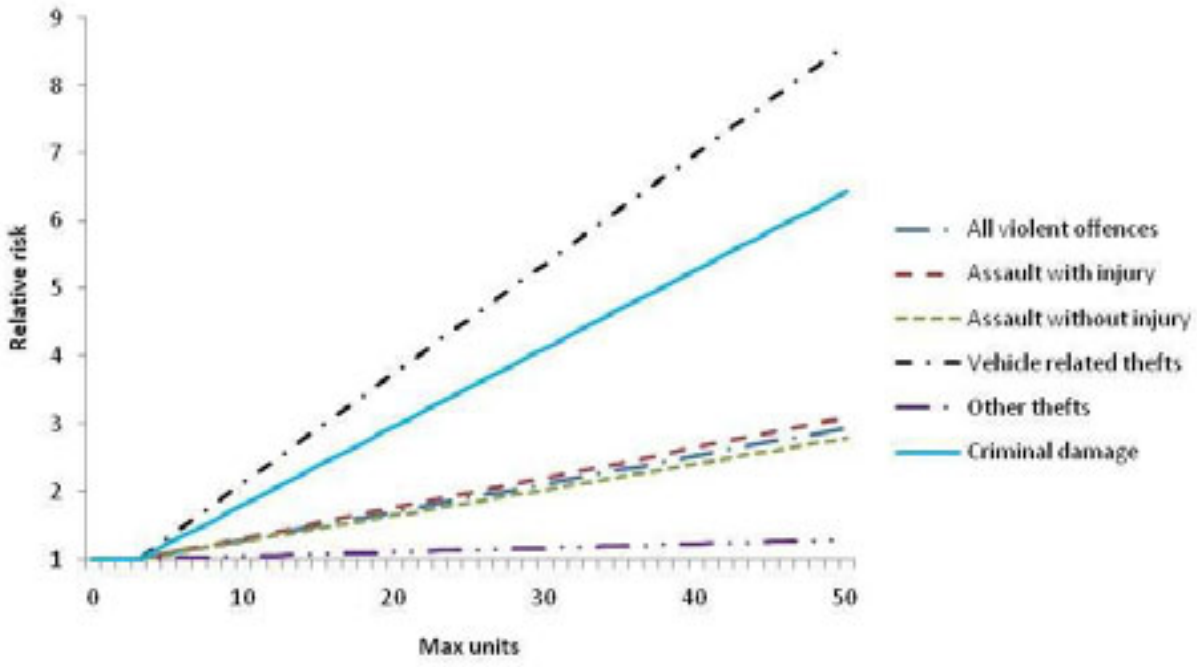


Figure 2.17: Relative risk functions in females aged 16 to 25

In the Scotland model, the same source (Dubourg et al 2005) was used to extract the unit crime costs as in the England model. Costs also include the physical and emotional impacts on direct victims which are based on work by Dolan et al (2005) to obtain estimates of the quality of life impact of different crimes. For non-property crimes (eg. violence), the same

assumption was used as in the England model, which values the quality-adjusted life year (QALY) loss due to crime using £81,000 per QALY (as previously discussed with Home Office experts and based on Carthy et al (1999)). For property crimes (eg. theft and criminal damage), the Scotland model represents the physical and emotional impacts on direct victims as direct financial costs. The costs and utilities of each crime category are given in Appendix 11.

2.3.3.5 Workplace model parameters

Inputs to populate the workplace model were mainly extracted from the Scottish sample contained within the 2008 Labour Force Survey (Office for National Statistics and Northern Ireland Statistics and Research Agency, 2009): for absence rate, number of days worked, annual gross income and working rate (see Table 2.10). The participation rate was calculated using a similar definition as in MacDonald and Shields (2004), considering both the economically active and inactive population aged 16 years and over. Non-workers were derived from the following variables in the LFS: ILO unemployed and inactive. Such a definition thus takes into consideration people looking after their home families and people who are permanently sick.

Age (years)	Absence rate		Days scheduled to work		Gross annual earnings (£)		Participation rate	
	Male	Female	Male	Female	Male	Female	Male	Female
16-17	0.9%	3.1%	3.73	3.03	5914	4394	39.8%	36.6%
18-24	1.4%	2.4%	4.52	4.15	14077	11674	67.9%	65.1%
25-34	1.5%	2.0%	4.90	4.36	26172	19017	87.0%	75.3%
35-44	1.8%	2.4%	4.96	4.32	30802	18383	88.6%	79.5%
45-54	2.0%	2.4%	4.99	4.46	31513	19630	88.5%	80.0%
55-64	1.5%	3.6%	4.89	4.28	26212	16839	66.4%	48.1%

Table 2.10: Workplace model inputs

Using Scotland-specific alcohol consumption prevalence (mean consumption prevalence for unemployment and peak consumption prevalence for absenteeism) from SHeS 2003, the Scotland model adopts the same method to estimate relative risk functions for unemployment and absenteeism as in the England model (see Section 2.7.1.2 and 2.7.2.2 of the England report). The relative risk functions for unemployment and absenteeism are shown in Figure 2.18 to Figure 2.21 and Appendix 12. As in the England model, the workplace model excludes people age 65 and over.

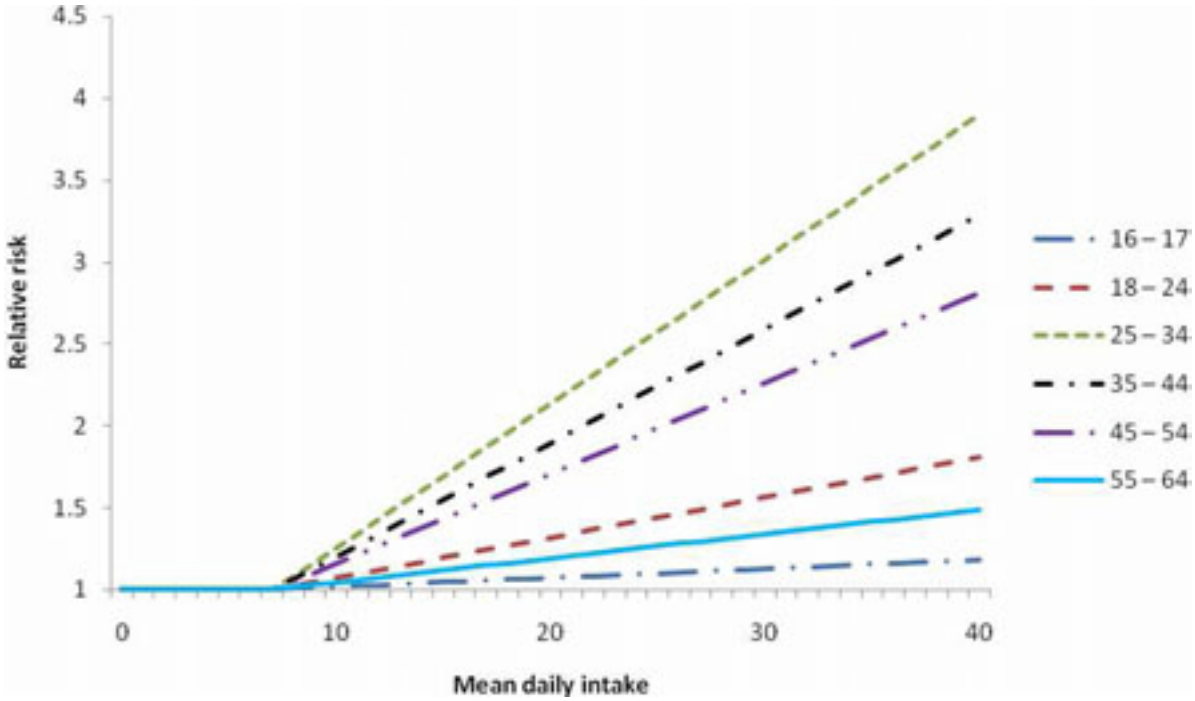


Figure 2.18: Risk functions for unemployment in males

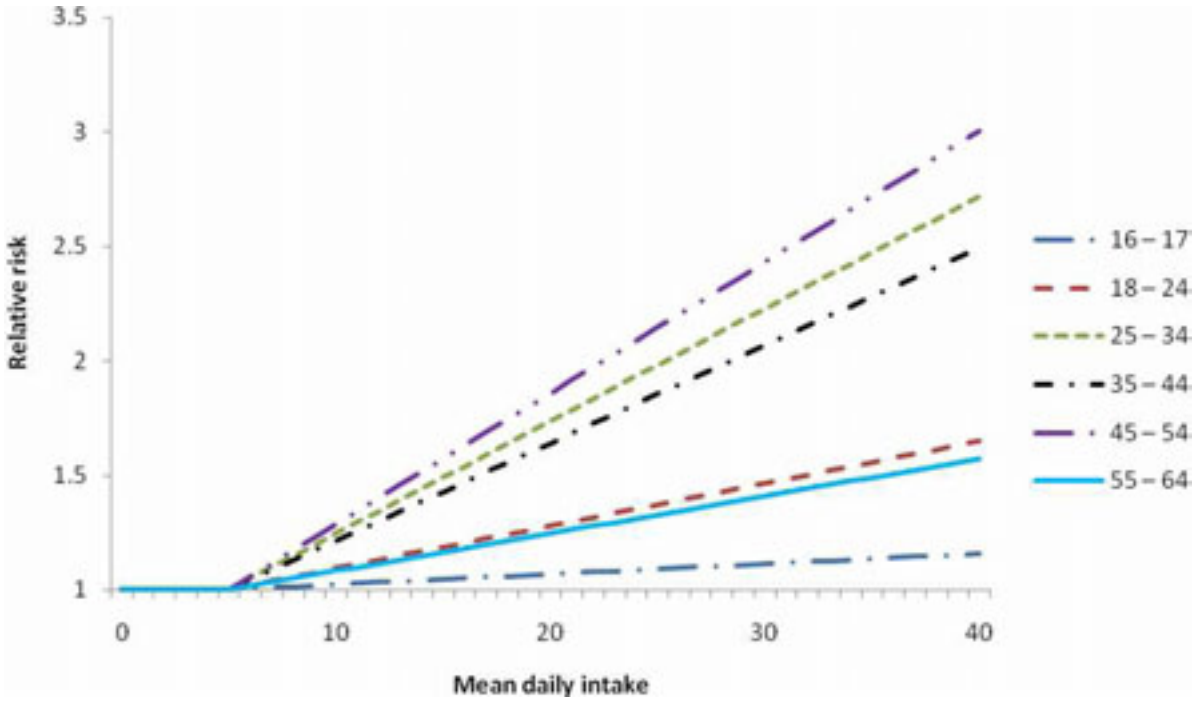


Figure 2.19: Risk functions for unemployment in females

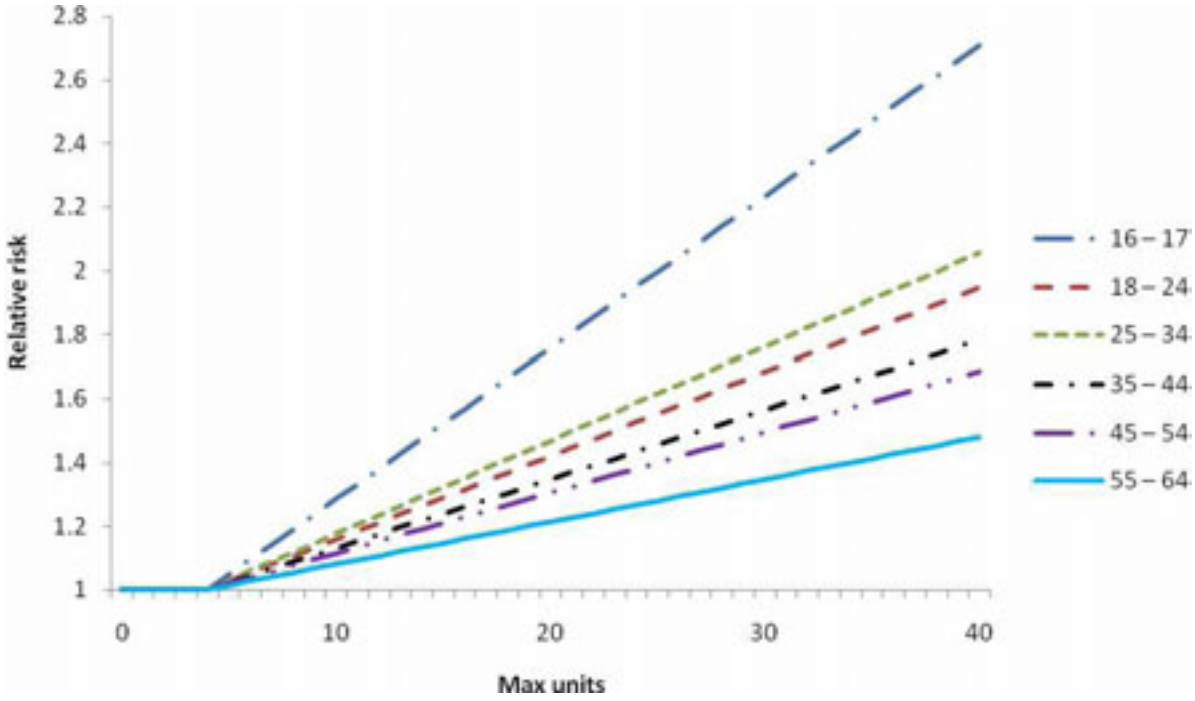


Figure 2.20: Risk functions for absenteeism in males

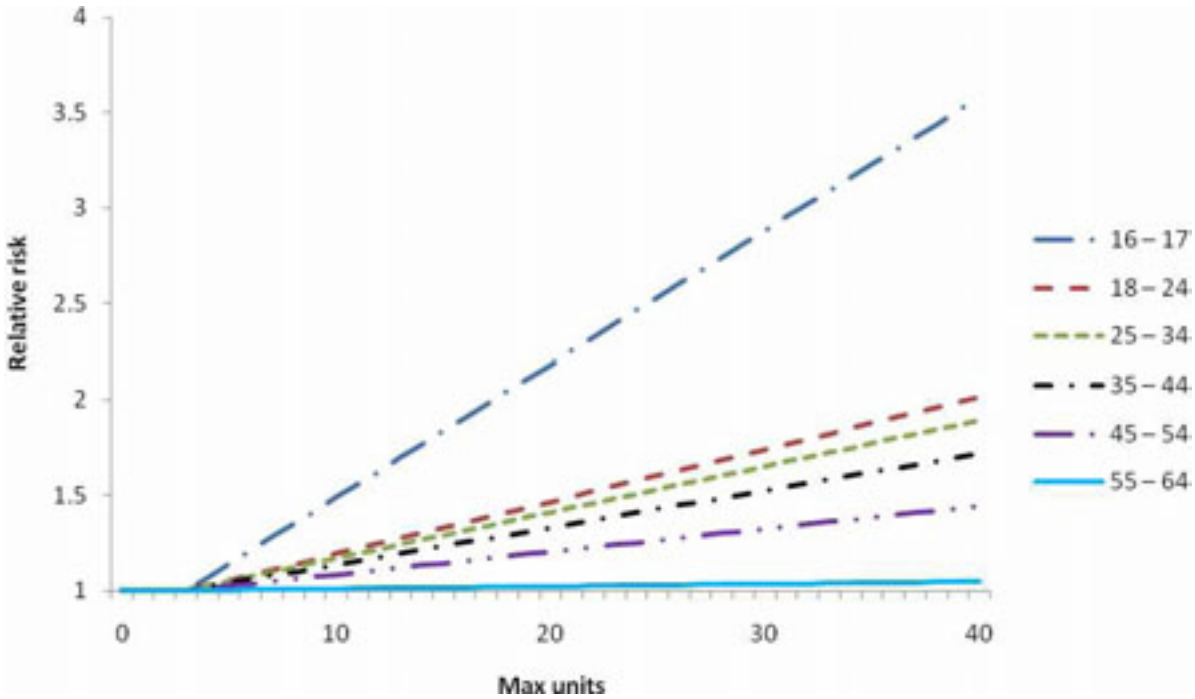


Figure 2.21: Risk functions for absenteeism in females

2.4 POLICIES APPRAISED

The Scottish adaptation of the model has been commissioned to consider the impact of minimum pricing policies in isolation, a total ban on price-based promotions (ie. short-term discounting from list price) and minimum pricing policies working in tandem with a discount ban. Ten separate thresholds for a minimum price are explored (25p to 70p in steps of 5p), aiming to cover a range of levels of outcome, in terms of consumption, harm and financial impacts. 21 polices are appraised in total.

2.5 SENSITIVITY ANALYSIS

The analysis of pricing policies includes a set of sensitivity analyses that attempt to account for the uncertainty in the representation of both current alcohol purchasing and consumption in Scotland and how changes to price might influence consumer behaviour. Key uncertainties around the relationship between alcohol consumption and the population-level risk of coronary heart disease, and between alcohol consumption and population-level risk of crime are also explored. Descriptions of the different sensitivity analyses are provided here; for results see Section 3.3.

Sensitivity analyses included:

- **Probabilistic sensitivity analysis** – considers the impact of uncertainty in the parameter estimates from the econometric model, from which elasticities are derived
- **Differential responsiveness of heavy drinkers** – considers the implications of a what-if? scenario in which hazardous and harmful drinkers are comprehensively less responsive to price changes than moderate drinkers
- **Preferences for off-trade consumption** – considers the implications of using alternative evidence (to the Scottish data in the EFS) for the proportion of alcohol consumption that is purchased in the off-trade
- **Protective effects of alcohol for coronary heart disease** – considers the impact of using alternative risk functions for CHD, which offer increased protective benefit for some levels of alcohol consumption
- **Attribution of alcohol to crime** – uses different definitions of attribution to construct alternative AAF estimates and hence alternative risk functions for various types of alcohol-related crime.

2.5.1 Probabilistic sensitivity analysis

The impact of alcohol pricing policies on society is quite extensive (even within individual sectors, such as healthcare where over 50 separate conditions are considered in Scotland to be related to consumption) and as a result the model contains a large number of model parameters which must be estimated. All of these parameters are subject to uncertainty as to their true value. In this analysis, probability distributions are fitted to the core econometric elements of the overall model since the price elasticity of demand is the key active ingredient for estimating pricing policy impacts. Fitting probability distributions to all model parameters is not feasible within the scope of the current study, and is arguably not a priority since alcohol policy modelling is also subject to considerable structural uncertainty (ie. the errors that are introduced when real-world processes are represented in a mathematical model).

The three-stage least-squares regression of the system of equations used to estimate price elasticities produces a series of variance-covariance matrices. In these circumstances, assuming conditions of multivariate normality, Cholesky decomposition can be used to sample alternative parameter estimates (from which own-price and cross-price elasticities can directly be derived). The model is then re-run with the new parameter estimates to generate fresh outcomes. The process is repeated a large number of times (100 here, but ideally more) to produce a distribution of outcomes. From this, the likelihood of exceeding a particular threshold for an outcome can be estimated.

Due to time constraints, the model runs have been restricted to just consider the impact on consumption (rather than going on to consider the subsequent impact on harms) for three policy options: a 40p minimum price, an off-trade discount ban, and the combination of these two policies. Estimates of the 95% confidence interval around consumption reductions have been obtained.

2.5.2 Differential responsiveness of heavy drinkers

The differential impact of pricing policies on the consumption of moderate versus heavier (hazardous or harmful) drinkers estimated by the original Sheffield model has come under external scrutiny. In an analysis of the model methodology and results, funded by the brewer SAB Miller, the Centre for Economics and Business Research (Centre for Economics and Business Research, 2009), suggested that the implied overall elasticities for a 10% across-the-board price increase (0.35, 0.47 and 0.45 for moderate, hazardous and harmful drinker respectively – based on results from the original study) were inconsistent with other findings from the literature. This is because the results suggest that moderate drinkers are less responsive to price than heavier drinkers.

Caution is required when comparing elasticities in the literature, since the demand metric can vary between studies. This is particularly the case for the meta-analysis of elasticities for heavy drinkers conducted by Wagenaar et al (2008), where several of the elasticities in the individual studies related to the frequency or magnitude of heavy episodic drinking (or bingeing). Comparing these findings against elasticities based on mean levels of consumption may lead to invalid conclusions since the bases of demand are different. However studies do exist which suggest that price responsiveness may reduce with increasing levels of mean consumption. Manning et al (1995) identified a non-linear relationship between consumption and price elasticity, with moderate (but not light) drinkers exhibiting the greatest elasticity. However the data used to generate the estimates relates to a survey of the US population in 1983 and its relevance to England or Scotland in 2009 is open to question.

Most of the estimates available in the literature consider a limited decomposition of beverage types. These may arguably be unable to represent the heterogeneity in consumer response (for example, the most popular beverage in a country is often found to be the least price elastic) and certainly offer limited support to the requirement to understand substitution between beverage types, beverage quality, and the on-trade and off-trade. The 256-element elasticity matrix used in the model was specifically designed to facilitate such an analysis. A what-if? sensitivity analysis is considered here in which the combined hazardous and harmful drinker matrix is attenuated across all elements by comparison to the moderate drinker matrix. The Chisholm et al (2004) assumption that heavy drinkers are one third less responsive than moderate drinkers is used. The revised hazardous-harmful matrix is shown in Appendix 13.

2.5.3 Preferences for off-trade consumption

The split of consumption between off-trade and on-trade for each sub-group in the model is based on purchasing data from the EFS. For the Scottish subset of data in the survey, overall almost 73% of alcohol (measured in terms of units of ethanol) is consumed in the off-trade. Some variation exists between beverages: 47% of beer/cider is consumed in the off-trade but the corresponding figure for wine (including fortified wine) is 93%. This evidence is based on self-reported data, aggregated over the period 2001/02 to 2005/06. Alternative data for Scotland on the split – from AC Nielsen – has been made available to the research team (Scottish Government, 2008b). A comparison with the EFS data is shown in Table 2.11. Overall, the market research data (for 2007) indicates that the off-trade represents a smaller proportion of consumption overall. At beverage category level, the picture is more mixed:

there is a reasonably good match for beer/cider between the two data sources, but wine and spirit off-trade preferences are lower for Nielsen, whilst RTD preferences are higher.

The reason for the discrepancy is not fully understood. The Nielsen data is based on a combination of census and survey and so could be argued to represent a gold standard. One hypothesis could be that the modelling assumption that two weeks' purchasing in the EFS is equivalent to two weeks' consumption is not always appropriate; a second hypothesis could be that off-trade purchasing is recorded more accurately (eg. via till receipts) than on-trade consumption (eg. which is subject to memory recall) and it is recognised that recall methods tend to underestimate actual consumption levels.

Beverage type	Scotland preference for off-trade alcohol (via EFS)	Scotland preference for off-trade alcohol (via Nielsen)
Beer/cider	47.3%	45.6%
Wine	93.2%	81.6%
Spirit	86.4%	72.6%
RTD	40.2%	60.3%
Total	**72.7%**	**63.3%**

Table 2.11: Comparison of preferences for off-trade alcohol between EFS and Nielsen data sources

The impact of using the alternative Nielsen evidence has been tested by proportionately adjusting all sub-group off-trade preferences to reflect the alternative overall preferences shown in Table 2.11.

2.5.4 Protective effects of alcohol for coronary heart disease

There is some debate in the literature over the nature of the relationship between alcohol consumption and risk of coronary heart disease – in particular over the degree of protective benefit that might be afforded by some degree of consumption. In the basecase model, evidence from the meta-analysis by Corrao et al (2000) is used, whereby the risk function is adjusted for both gender and geographic area (Mediterranean or non-Mediterranean)[3]. The non-Mediterranean version was used in the original model for England; however it could be argued that the set of countries considered 'non-Mediterranean' in the meta-analysis are not particularly representative of England or Scotland and therefore no adjustment should be made for region. Therefore a sensitivity analysis has been run using an adjustment for

[3] Corrao et al (2000) did not present a female risk function adjusted for area, but a function has been inferred by assuming independence between the two covariates.

gender alone. The equations for alternative risk functions are shown in Table 2.12. Corresponding plots are shown in Figure 2.22.

Scenario	Male	Female
Baseline (adjusting for gender and area)	$LnRR = 0.01514 \cdot alc - 0.1092 \cdot \sqrt{alc}$	$LnRR = 0.0213 \cdot alc - 0.1092 \cdot \sqrt{alc}$
Sensitivity analysis (adjusting for gender)	$LnRR = 0.01073 \cdot alc - 0.1065 \cdot \sqrt{alc}$	$LnRR = 0.01689 \cdot alc - 0.1065 \cdot \sqrt{alc}$

alc: grams of alcohol consumed per day

Table 2.12: Alternative relative risk functions for coronary heart disease used in the model (derived from Corrao et al, 2000)

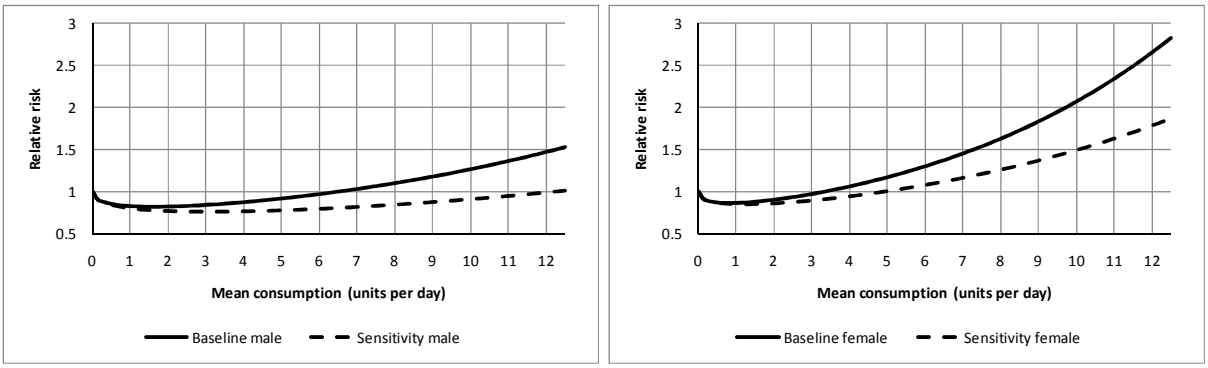


Figure 2.22: Alternative CHD risk functions for (a) males; (b) females

2.5.5 Attribution of alcohol to crime

The basecase model makes use of evidence from the Offending, Crime and Justice Survey to estimate the fraction of cases of various types of crime that can be considered attributable to alcohol. The survey invites respondents to state (i) why they committed a crime and (ii) whether or not they were intoxicated at the time. Respondents can select multiple reasons under part (i), which include 'don't know' and 'other'. Following criminologist expert opinion, in the basecase model attribution is assumed if the respondent selects 'drunk' as one of (possibly several) responses. As sensitivity analyses, both worst-case and best-case scenarios are also considered:

- Worst case – attribution is based on respondent selecting 'drunk' only
- Best case – attribution is based on respondent saying they were drunk at the time.

3 RESULTS

This section contains model results for minimum price policies ranging from 25p to 70p per unit, an off-trade discount ban in isolation, and an off-trade discount ban in tandem with minimum price policies. Results are reported for Scotland as a whole and separately for moderate, hazardous and harmful drinkers. Note that moderate drinkers are defined as drinkers aged 18 years and over (reflecting the existing statutory minimum legal purchase age for alcohol), whilst other groups include persons aged 11 and over.

The reader is first taken through three example policy analyses in detail – a minimum price of 40p per unit, an off-trade discount ban, and a 40p minimum price in combination with an off-trade discount ban – to illustrate the model outputs presented in the tables and their interpretation. The rest of the section focuses on comparing results across all of the price-based policies.

No decision has been made by the Scottish Government over the level of minimum price that may be set. The choice of 40p is to maintain consistency with the example policy analysis that was used as illustration of impact in *Changing Scotland's relationship with alcohol: A framework for action* (Scottish Government, 2009) and the previous examples given in the original UK Department of Health (Brennan et al, 2008) and NICE (Purshouse et al, 2009) modelling studies.

3.1 EXAMPLE POLICY ANALYSES

3.1.1 Example policy analysis: 40p minimum price (scenario 4)

Table 3.1 shows the results for consumption changes, consumer spending and sales.

Overall weekly consumption changes by -2.7%. Consumption is estimated to reduce by on average 22 units per person per year.

Consumption changes are greatest for harmful drinkers (-3.7 units per week).

Moderate drinkers are affected in a small way (approximately -0.1 units per week).

Table 3.2 shows the effects of the policy scenario on health, crime and workplace harms, as well as a financial valuation.

Effects on health are estimated to be substantial with deaths estimated to reduce by approximately 40 within the first year of implementation and a full effect after ten years of around 210. Deaths are differentially distributed across the groups, with approximately 10 amongst moderate drinkers, 60 amongst hazardous drinkers and 140 amongst harmful

drinkers. Illness also decreases with an estimated reduction of 1,500 chronic and 500 acute illnesses at full effect.

Hospital admissions are estimated to reduce by around 800 in year 1, and a full effect after 10 years of 3,600.

Healthcare service costs are estimated to reduce by £3.5m in year 1, with a QALY gain valued at £8.6m.

Crime is estimated to fall by 1,100 offences overall. The distribution of effect varies across the groups: reductions of approximately 600 and 800 cases in hazardous and harmful drinkers respectively but an estimated increase of 200 cases amongst moderate drinkers. The latter result is driven by slight consumption increases in 18 to 24 year old male drinkers resulting from a 40p policy. The majority of consumption by this group is in the on-trade, so small switching effects from off-trade to on-trade, in relative terms, can outweigh the reductions in off-trade consumption arising from the policy. Note that this result may be an artefact of using a single elasticity matrix to cover all moderate drinking sub-groups.

The harm avoided in terms of victim quality of life is valued at £0.7m per annum, using £81,000 per QALY.

Direct costs of crime are estimated to reduce by £1m per annum.

Workplace harms are reduced by 800 fewer unemployed people and 11,600 fewer sick days per year. All the cases of unemployment are from harmful drinkers since it is assumed that excessive risk of unemployment due to alcohol only occurs at harmful levels of drinking.

The societal value of these harm reductions is £540m in total over the 10 year period modelled. In the first year, the estimated societal value of the harm reductions is as follows: NHS cost reductions (£3.5m), value of QALYs saved (£8.6m), crime costs saved (£1.0m), value of crime QALYs saved (£0.7m) and employment related harms avoided (£20.5m).

The societal value of harm reductions is distributed differentially across the groups, with hazardous drinkers accounting for £110m of the total value, harmful drinkers £360m and moderate drinkers £70m.

Returning to Table 3.1, the spending and sales results are as follows:

Absolute reductions in consumption are estimated to be largest in off-trade beer (which in the model includes cider) **and off-trade spirit**. **There is a large absolute increase in consumption of on-trade beer** (which again includes cider).

Males and Females Consumption Patterns			Scotland 11 +	Moderate 18 +	Hazardous 11 +	Harmful 11 +
Baseline						
Mean consumption per person per week			13.25	5.12	27.13	65.01
n people			4,505,100	2,905,531	953,631	273,768
Mean consumption per drinker per week			15.60	6.14	27.13	65.01
n drinkers			3,833,386	2,426,970	953,631	273,768
% binge (>8 males, >6 females)			23.3%	11.4%	52.3%	70.1%
Mean scale of binge if binge occurs (units)			13.9	12.5	14.0	17.1
Volume sales (units per drinker per year)	Off-trade	Beer	114.9	32.0	185.9	702.2
		Wine	247.8	88.4	492.8	1,036.4
		Spirit	142.4	54.9	238.2	721.8
		RTD	7.6	4.8	8.7	31.2
	On-trade	Beer	195.1	81.5	327.7	712.5
		Wine	32.6	18.9	51.0	46.4
		Spirit	51.1	33.6	72.3	108.0
		RTD	22.1	6.1	38.1	31.4
	Total		813.6	320.3	1,414.7	3,390.0
Value sales (£ per drinker per year)	Off-trade	Beer	£41.12	£13.09	£67.73	£232.01
		Wine	£123.89	£44.96	£245.50	£511.36
		Spirit	£54.51	£23.17	£90.79	£257.96
		RTD	£5.90	£3.67	£6.74	£24.16
	On-trade	Beer	£220.07	£98.58	£365.82	£778.50
		Wine	£59.80	£36.24	£88.46	£86.34
		Spirit	£92.97	£64.14	£128.06	£187.64
		RTD	£36.41	£10.54	£62.87	£52.40
	Total		£634.68	£294.38	£1,055.97	£2,130.38
Absolute change						
Mean consumption per person per week			-0.36	-0.07	-0.50	-3.72
Mean consumption per drinker per week			-0.43	-0.08	-0.50	-3.72
% change in mean consumption			-2.7%	-1.3%	-1.9%	-5.7%
Change in volume of consumption (units per drinker per year)	Off-trade	Beer	-18.32	-2.18	-27.52	-146.30
		Wine	3.24	-0.66	11.19	12.70
		Spirit	-16.18	-3.82	-26.85	-104.29
		RTD	-0.03	-0.02	-0.02	-0.20
	On-trade	Beer	8.42	2.29	16.06	42.30
		Wine	0.09	0.00	0.24	0.22
		Spirit	0.40	0.26	0.57	1.31
		RTD	0.07	0.04	0.13	0.21
	Total		-22.30	-4.09	-26.19	-194.05
Change in £ value of purchases (sales) (£ per drinker per year)	Off-trade	Beer	£1.62	£0.83	£2.44	£7.20
		Wine	£6.84	£1.35	£15.37	£33.13
		Spirit	£1.86	£0.95	£2.86	£8.49
		RTD	£0.05	£0.04	£0.04	£0.21
	On-trade	Beer	£10.17	£2.89	£19.31	£50.31
		Wine	£0.17	-£0.00	£0.48	£0.52
		Spirit	£0.70	£0.49	£0.96	£2.07
		RTD	£0.13	£0.06	£0.23	£0.36
	Total		£21.54	£6.62	£41.68	£102.29
Effect of policy on "pocket" if drinkers did not change consumption (£ per drinker per year)	Off-trade	Beer	£9.07	£1.72	£13.65	£66.52
		Wine	£4.12	£1.44	£7.55	£20.70
		Spirit	£8.55	£2.56	£14.01	£51.29
		RTD	£0.05	£0.04	£0.04	£0.27
	On-trade	Beer	£0.04	£0.00	£0.03	£0.42
		Wine	£0.00	£0.00	£0.00	£0.00
		Spirit	£0.00	£0.00	£0.01	£0.00
		RTD	£0.00	£0.00	£0.00	£0.00
	Total		£21.84	£5.77	£35.28	£139.20
Total change in retailer received £m (after VAT+Duty)	Off-trade		£m 53.9	£m 9.4	£m 24.0	£m 21.9
	On-trade		£m 32.7	£m 6.4	£m 15.3	£m 11.1
	Total		£m 86.6	£m 15.9	£m 39.2	£m 33.0
Total Change in VAT & Duty Received	Off-trade		£m -14.2	£m -1.7	£m -4.2	£m -8.5
	On-trade		£m 10.1	£m 1.9	£m 4.7	£m 3.5
	Total		£m -4.0	£m 0.2	£m 0.5	£m -5.0
% change in spend / sales	Off-trade		+4.6%	+3.7%	+5.0%	+4.8%
	On-trade		+2.8%	+2.0%	+3.0%	+3.4%
	Total		+3.4%	+2.2%	+3.9%	+4.8%
Total Change Pop'n Spend (Sales)	Off-trade		£m 39.8	£m 7.7	£m 19.7	£m 13.4
	On-trade		£m 42.8	£m 8.4	£m 20.0	£m 14.6
	Total		£m 82.6	£m 16.1	£m 39.7	£m 28.0

Table 3.1: Results table for 40p minimum price – scenario 4 (consumption effect)

Males and Females Harm Reductions Absolute change			Scotland 11 +	Moderate 18 +	Hazardous 11 +	Harmful 11 +
Health Changes in Year 1	Deaths	Chronic	-19	0	-5	-13
		Acute	-21	-7	-6	-7
		Total	-39	-7	-12	-20
	Illnesses	Chronic	-153	-14	-38	-101
		Acute	-478	-152	-154	-172
		Total	-631	-166	-192	-274
	Admissions	Chronic	-302	-25	-72	-204
		Acute	-535	-164	-173	-198
		Total	-837	-189	-245	-402
	QALYs per annum		-173	-44	-54	-75
	Value of 'saved' QALYs		-8,640,621	-2,195,212	-2,701,175	-3,744,234
	Cost (£)	Chronic	-866,330	-90,868	-225,166	-550,296
		Acute	-2,658,425	-819,086	-855,976	-983,363
		Total (£)	-3,524,755	-909,954	-1,081,141	-1,533,660
Health Changes per annum in Year 10	Deaths p.a.	Chronic	-190	-1	-56	-133
		Acute	-23	-8	-8	-7
		Total	-213	-9	-64	-141
	Illnesses p.a.	Chronic	-1,538	-123	-406	-1,009
		Acute	-528	-167	-188	-172
		Total	-2,065	-290	-594	-1,182
	Admissions p.a.	Chronic	-3,028	-222	-761	-2,045
		Acute	-585	-180	-209	-196
		Total	-3,613	-402	-970	-2,242
	QALYs per annum		-1,272	-250	-365	-658
	Cost (£)	Chronic	-8,614,178	-823,681	-2,362,741	-5,427,756
		Acute	-2,934,079	-903,137	-1,046,254	-984,693
		Total (£)	-11,548,258	-1,726,818	-3,408,995	-6,412,449
Cumulative Health Change over 10 yrs	Discounted QALYs		-5,747	-1,110	-1,680	-2,956
	Discounted Costs		-63,687,775	-11,250,215	-18,723,345	-33,714,215
	Value of Discounted QALYs		-287,338,667	-55,507,615	-83,997,840	-147,822,857
	Total Value of Health Changes		-351,026,442	-66,757,830	-102,721,185	-181,537,072
Crime Changes per annum	Volume	Violent	-291	58	-145	-204
		Damage	-458	111	-235	-334
		Theft/Oth	-388	42	-192	-238
		Total	-1,137	212	-573	-776
	Cost (£)	Violent	-451,441	74,263	-214,582	-311,123
		Damage	-396,991	96,433	-204,073	-289,350
		Theft/Oth	-128,881	4,165	-61,333	-71,713
		Total (£)	-977,313	174,862	-479,989	-672,186
	QALYs	Violent	-9	1	-4	-6
		Damage	0	0	0	0
		Theft/Oth	0	0	0	0
	Total	Total	-9	1	-4	-6
	Value of 'saved' QALYs		-700,696	102,605	-320,079	-483,222
Employment Changes per annum	Volume	Absence days	-11,581	-2,219	-4,000	-5,362
		Unempl people	-804	0	0	-804
	Cost (£)	Absence	-1,068,673	-196,478	-352,213	-519,982
		Unempl	-19,389,923	0	0	-19,389,923
		Total (£)	-20,458,596	-196,478	-352,213	-19,909,905
Summary Financial Value Harm Reduction Year 1	Health Costs (£)		-3,524,755	-909,954	-1,081,141	-1,533,660
	Crime Costs (£)		-977,313	174,862	-479,989	-672,186
	Employment Costs (£)		-20,458,596	-196,478	-352,213	-19,909,905
	Total Direct Costs (£)		-24,960,663	-931,571	-1,913,342	-22,115,751
	Health QALYs (£)		-8,640,621	-2,195,212	-2,701,175	-3,744,234
	Crime QALYs (£)		-700,696	102,605	-320,079	-483,222
	Total Societal Value (£)		-34,301,981	-3,024,178	-4,934,596	-26,343,207
Cumul 10 year Summary Financial Value Harm Reduction	Health Costs (£)		-63,687,775	-11,250,215	-18,723,345	-33,714,215
	Crime Costs (£)		-8,127,926	1,454,256	-3,991,875	-5,590,306
	Employment Costs (£)		-170,146,065	-1,634,030	-2,929,213	-165,582,822
	Total Direct Costs (£)		-241,961,766	-11,429,989	-25,644,434	-204,887,343
	Health QALYs (£)		-287,338,667	-55,507,615	-83,997,840	-147,822,857
	Crime QALYs (£)		-6,461,949	946,238	-2,951,827	-4,456,360
	Total Societal Value (£)		-535,762,381	-65,991,366	-112,594,100	-357,166,560

Table 3.2: Results table for 40p minimum price – scenario 4 (harm effect)

The cost impact of the policy on consumers varies substantially between drinker types:

- Harmful drinkers: £102 per drinker per annum
- Hazardous drinkers: £42 per drinker per annum
- Moderate drinkers: £7 per drinker per annum.

An overall increased spend by consumers is estimated of £80m per annum, split broadly equally between off-trade and on-trade sectors.

Overall revenue to the Treasury (from duty and VAT receipts) changes by approximately -£4m.

3.1.2 Example policy analysis: Off-trade discount ban (scenario 11)

Table 3.3 shows the results for consumption changes, consumer spending and sales.

Overall weekly consumption changes by -3.0%. Consumption is estimated to reduce by on average 24 units per person per year.

Consumption changes are greatest for harmful drinkers (-2.45 units per week), although the difference between this and the overall change for Scotland is smaller than for the 40p policy previously analysed.

Moderate drinkers are affected in a small way in absolute terms (-0.13 units per week).

Table 3.4 shows the effects of the policy scenario on health, crime and employment harms, as well as a financial valuation.

Effects on health are estimated to be substantial with deaths estimated to reduce by approximately 40 within the first year of implementation and a full effect after 10 years of around 180. Deaths are distributed differentially across the groups, with approximately 10 saved amongst moderate drinkers, 90 amongst hazardous drinkers and 80 amongst harmful drinkers. Illness also decreases with an estimated reduction of 550 acute and 130 chronic in year 1.

Hospital reductions are estimated to reduce by around 900 in year 1, and a full effect after 10 years of 3,200 avoided admissions per annum.

Healthcare service costs are estimated to reduce by £3.8m in year 1, with a QALY gain valued at £9.8m.

Males and Females Consumption Patterns			Scotland 11 +	Moderate 18 +	Hazardous 11 +	Harmful 11 +
Baseline						
Mean consumption per person per week			13.25	5.12	27.13	65.01
n people			4,505,100	2,905,531	953,631	273,768
Mean consumption per drinker per week			15.60	6.14	27.13	65.01
n drinkers			3,833,386	2,426,970	953,631	273,768
% binge (>8 males, >6 females)			23.3%	11.4%	52.3%	70.1%
Mean scale of binge if binge occurs (units)			13.9	12.5	14.0	17.1
Volume sales (units per drinker per year)	Off-trade	Beer	114.9	32.0	185.9	702.2
		Wine	247.8	88.4	492.8	1,036.4
		Spirit	142.4	54.9	238.2	721.8
		RTD	7.6	4.8	8.7	31.2
	On-trade	Beer	195.1	81.5	327.7	712.5
		Wine	32.6	18.9	51.0	46.4
		Spirit	51.1	33.6	72.3	108.0
		RTD	22.1	6.1	38.1	31.4
	Total		813.6	320.3	1,414.7	3,390.0
Value sales (£ per drinker per year)	Off-trade	Beer	£41.12	£13.09	£67.73	£232.01
		Wine	£123.89	£44.96	£245.50	£511.36
		Spirit	£54.51	£23.17	£90.79	£257.96
		RTD	£5.90	£3.67	£6.74	£24.16
	On-trade	Beer	£220.07	£98.58	£365.82	£778.50
		Wine	£59.80	£36.24	£88.46	£86.34
		Spirit	£92.97	£64.14	£128.06	£187.64
		RTD	£36.41	£10.54	£62.87	£52.40
	Total		£634.68	£294.38	£1,055.97	£2,130.38
Absolute change						
Mean consumption per person per week			-0.40	-0.11	-0.90	-2.45
Mean consumption per drinker per week			-0.47	-0.13	-0.90	-2.45
% change in mean consumption			-3.0%	-2.1%	-3.3%	-3.8%
Change in volume of consumption (units per drinker per year)	Off-trade	Beer	-7.71	-1.30	-12.56	-54.07
		Wine	-14.92	-4.53	-31.50	-62.66
		Spirit	-4.72	-1.57	-8.54	-23.83
		RTD	-0.15	-0.08	-0.20	-0.71
	On-trade	Beer	2.83	0.76	5.65	12.93
		Wine	0.03	0.01	0.06	0.05
		Spirit	0.15	0.09	0.24	0.41
		RTD	0.03	0.01	0.05	0.05
	Total		-24.48	-6.62	-46.82	-127.83
Change in £ value of purchases (sales) (£ per drinker per year)	Off-trade	Beer	£2.05	£0.75	£3.13	£11.56
		Wine	£6.25	£2.71	£11.73	£24.16
		Spirit	£1.33	£0.68	£2.10	£5.67
		RTD	£0.18	£0.12	£0.21	£0.71
	On-trade	Beer	£3.39	£0.96	£6.76	£15.11
		Wine	£0.05	£0.01	£0.12	£0.12
		Spirit	£0.26	£0.17	£0.41	£0.68
		RTD	£0.05	£0.02	£0.08	£0.09
	Total		£13.57	£5.42	£24.53	£58.11
Effect of policy on "pocket" if drinkers did not change consumption (£ per drinker per year)	Off-trade	Beer	£4.97	£1.31	£8.01	£31.07
		Wine	£14.99	£5.41	£30.11	£60.49
		Spirit	£3.35	£1.41	£5.74	£15.26
		RTD	£0.31	£0.19	£0.37	£1.27
	On-trade	Beer	£0.00	£0.00	£0.00	£0.00
		Wine	£0.00	£0.00	£0.00	£0.00
		Spirit	£0.00	£0.00	£0.00	£0.00
		RTD	£0.00	£0.00	£0.00	£0.00
	Total		£23.62	£8.31	£44.24	£108.09
Total change in retailer received £m (after VAT+Duty)	Off-trade		£m 48.6	£m 11.8	£m 21.8	£m 15.8
	On-trade		£m 11.0	£m 2.2	£m 5.4	£m 3.3
	Total		£m 59.6	£m 14.0	£m 27.2	£m 19.1
Total Change in VAT & Duty Received	Off-trade		£m -11.0	£m -1.5	£m -5.5	£m -4.2
	On-trade		£m 3.4	£m 0.7	£m 1.7	£m 1.1
	Total		£m -7.6	£m -0.8	£m -3.8	£m -3.2
% change in spend / sales	Off-trade		+4.4%	+5.0%	+4.2%	+4.1%
	On-trade		+0.9%	+0.7%	+1.0%	+1.0%
	Total		+2.1%	+1.8%	+2.3%	+2.7%
Total Change Pop'n Spend (Sales)	Off-trade		£m 37.6	£m 10.3	£m 16.4	£m 11.5
	On-trade		£m 14.4	£m 2.8	£m 7.0	£m 4.4
	Total		£m 52.0	£m 13.2	£m 23.4	£m 15.9

Table 3.3: Results table for total off-trade discount ban – scenario 11 (consumption effect)

Males and Females Harm Reductions Absolute change			Scotland 11 +	Moderate 18 +	Hazardous 11 +	Harmful 11 +
Health Changes in Year 1	Deaths	Chronic	-15	0	-7	-7
		Acute	-22	-8	-9	-4
		Total	-37	-9	-17	-11
	Illnesses	Chronic	-125	-13	-55	-57
		Acute	-545	-208	-231	-105
		Total	-670	-221	-285	-163
	Admissions	Chronic	-241	-24	-102	-116
		Acute	-629	-238	-268	-122
		Total	-870	-262	-369	-237
	QALYs per annum		-197	-66	-85	-46
	Value of 'saved' QALYs		-9,848,043	-3,292,349	-4,247,445	-2,280,222
	Cost (£)	Chronic	-723,757	-85,712	-324,970	-312,806
		Acute	-3,052,209	-1,152,722	-1,295,315	-596,910
		Total (£)	-3,775,966	-1,238,434	-1,620,285	-909,716
Health Changes per annum in Year 10	Deaths p.a.	Chronic	-159	-2	-81	-76
		Acute	-24	-9	-11	-4
		Total	-182	-11	-92	-80
	Illnesses p.a.	Chronic	-1,320	-131	-594	-594
		Acute	-576	-215	-256	-104
		Total	-1,896	-345	-851	-698
	Admissions p.a.	Chronic	-2,541	-236	-1,105	-1,199
		Acute	-659	-245	-293	-119
		Total	-3,200	-481	-1,398	-1,319
	QALYs per annum		-1,170	-279	-504	-386
	Cost (£)	Chronic	-7,558,157	-871,119	-3,491,445	-3,194,278
		Acute	-3,222,136	-1,191,268	-1,435,279	-588,669
		Total (£)	-10,780,293	-2,062,387	-4,926,724	-3,782,947
Cumulative Health Change over 10 yrs	Discounted QALYs		-5,511	-1,351	-2,411	-1,743
	Discounted Costs		-60,507,007	-13,863,274	-26,917,426	-19,659,847
	Value of Discounted QALYs		-275,551,759	-67,563,876	-120,563,155	-87,152,330
	Total Value of Health Changes		-336,058,766	-81,427,150	-147,480,581	-106,812,178
Crime Changes per annum	Volume	Violent	-653	-194	-319	-135
		Damage	-1,002	-278	-493	-217
		Theft/Oth	-789	-226	-374	-162
		Total	-2,444	-698	-1,187	-514
	Cost (£)	Violent	-963,527	-286,398	-468,375	-202,263
		Damage	-868,713	-241,078	-427,700	-188,189
		Theft/Oth	-243,002	-70,968	-111,635	-49,342
		Total (£)	-2,075,242	-598,444	-1,007,711	-439,794
	QALYs	Violent	-18	-5	-9	-4
		Damage	0	0	0	0
		Theft/Oth	0	0	0	0
	Total	Total	-18	-5	-9	-4
	Value of 'saved' QALYs		-1,472,219	-442,700	-714,068	-310,820
Employment Changes per annum	Volume	Absence days	-18,819	-6,903	-8,178	-3,676
		Unempl people	-602	0	0	-602
	Cost (£)	Absence	-1,766,734	-644,150	-765,697	-355,159
		Unempl	-14,068,724	0	0	-14,068,724
		Total (£)	-15,835,458	-644,150	-765,697	-14,423,883
Summary Financial Value Harm Reduction Year 1	Health Costs (£)		-3,775,966	-1,238,434	-1,620,285	-909,716
	Crime Costs (£)		-2,075,242	-598,444	-1,007,711	-439,794
	Employment Costs (£)		-15,835,458	-644,150	-765,697	-14,423,883
	Total Direct Costs (£)		-21,686,666	-2,481,028	-3,393,694	-15,773,393
	Health QALYs (£)		-9,848,043	-3,292,349	-4,247,445	-2,280,222
	Crime QALYs (£)		-1,472,219	-442,700	-714,068	-310,820
	Total Societal Value (£)		-33,006,929	-6,216,077	-8,355,206	-18,364,435
Cumul 10 year Summary Financial Value Harm Reduction	Health Costs (£)		-60,507,007	-13,863,274	-26,917,426	-19,659,847
	Crime Costs (£)		-17,258,970	-4,977,022	-8,380,737	-3,657,594
	Employment Costs (£)		-131,697,254	-5,357,143	-6,368,002	-119,957,738
	Total Direct Costs (£)		-209,463,231	-24,197,439	-41,666,165	-143,275,180
	Health QALYs (£)		-275,551,759	-67,563,876	-120,563,155	-87,152,330
	Crime QALYs (£)		-13,577,076	-4,082,662	-6,585,267	-2,866,440
	Total Societal Value (£)		-498,592,066	-95,843,978	-168,814,586	-233,293,950

Table 3.4: Results table for total off-trade discount ban – scenario 11 (harm effect)

Crime is estimated to fall by 2,400 offences overall. Just under half of this annual reduction is amongst hazardous drinkers, with approximately 500 amongst harmful drinkers and 700 amongst moderate drinkers.

The harm avoided in terms of victim quality of life is valued at £1.5m per year.

Direct costs of crime are estimated to reduce by £2.1m per year.

Workplace harms are reduced by 600 fewer unemployed people and 19,000 fewer sick days per year.

The societal value of these harm reductions is £500m in total over the 10 year period modelled. In the first year, the estimated societal value of the harm reductions is as follows: NHS cost reductions (£3.8m), value of QALYs saved (£9.8m), crime costs saved (£2.1m), value of crime QALYs saved (£1.5m) and employment related harms avoided (£15.8m). The overall societal value is less overall than for the 40p policy, but the valuation is less reliant on the estimated reductions in unemployment in harmful drinkers.

The societal value of harm reductions is distributed differentially across the groups, with hazardous drinkers accounting for £170m of the total value, harmful drinkers £230m and moderate drinkers £100m.

Returning to Table 3.3, the spending and sales results are as follows:

Absolute reductions in consumption are estimated to be largest in off-trade wine (which in the model includes fortified wine) **with notable reductions also in beer/cider and spirit. There is a large absolute increase in consumption of on-trade beer/cider.**

The cost impact of the policy on consumers varies substantially between drinker types:

- Harmful drinkers: £58 per drinker per annum
- Hazardous drinkers: £25 per drinker per annum
- Moderate drinkers: £5 per drinker per annum.

An overall increased spend by consumers is estimated of £50m per annum, split roughly 70:30 between off-trade and on-trade sectors.

Overall revenue to the Treasury (from duty and VAT receipts) changes by -£8m per year.

3.1.3 Example policy analysis: 40p minimum price combined with off-trade discount ban (scenario 15)

This scenario assumes that a 40p minimum price policy is implemented simultaneously with a total ban on off-trade discounting. Table 3.5 shows the results for consumption changes, consumer spending and sales.

Overall weekly consumption changes by -5.4%. Consumption is estimated to reduce by 44 units per drinker per year. The policy captures a large proportion of the effectiveness of both the minimum price policy (22 units) and discount ban (24 units), although the effect is not additive.

Consumption changes are greatest for harmful drinkers (-5.64 units per week).

Moderate drinkers are affected in a small way in absolute terms (-0.19 units per week).

Table 3.6 shows the effects of the policy scenario on health, crime and employment harms, as well as a financial valuation.

Effects on health are estimated to be substantial with deaths estimated to reduce by approximately 70 within the first year of implementation and a full effect after 10 years of around 370. Deaths are distributed differentially across the groups, with approximately 20 saved amongst moderate drinkers, 150 amongst hazardous drinkers and 200 amongst harmful drinkers. Illness also decreases with an estimated reduction of 970 acute and 260 chronic in year 1.

Hospital admissions are estimated to reduce by around 1,600 in year 1, and a full effect after 10 years of 6,300 avoided admissions per annum.

Healthcare service costs are estimated to reduce by £6.9m in year 1, with a QALY gain valued at £17.5m.

Crime is estimated to fall by 3,200 offences overall. Almost half of this annual reduction is amongst hazardous drinkers, with approximately one third amongst harmful drinkers and 500 amongst moderate drinkers.

The harm avoided in terms of victim quality of life is valued at £1.9m per year.

Direct costs of crime are estimated to reduce by £2.7m per year.

Males and Females Consumption Patterns			Scotland 11 +	Moderate 18 +	Hazardous 11 +	Harmful 11 +
Baseline						
Mean consumption per person per week			13.25	5.12	27.13	65.01
n people			4,505,100	2,905,531	953,631	273,768
Mean consumption per drinker per week			15.60	6.14	27.13	65.01
n drinkers			3,833,386	2,426,970	953,631	273,768
% binge (>8 males, >6 females)			23.3%	11.4%	52.3%	70.1%
Mean scale of binge if binge occurs (units)			13.9	12.5	14.0	17.1
Volume sales (units per drinker per year)	Off-trade	Beer	114.9	32.0	185.9	702.2
		Wine	247.8	88.4	492.8	1,036.4
		Spirit	142.4	54.9	238.2	721.8
		RTD	7.6	4.8	8.7	31.2
	On-trade	Beer	195.1	81.5	327.7	712.5
		Wine	32.6	18.9	51.0	46.4
		Spirit	51.1	33.6	72.3	108.0
		RTD	22.1	6.1	38.1	31.4
	Total		813.6	320.3	1,414.7	3,390.0
Value sales (£ per drinker per year)	Off-trade	Beer	£ 41	£ 13	£ 68	£ 232
		Wine	£ 124	£ 45	£ 246	£ 511
		Spirit	£ 55	£ 23	£ 91	£ 258
		RTD	£ 6	£ 4	£ 7	£ 24
	On-trade	Beer	£ 220	£ 99	£ 366	£ 779
		Wine	£ 60	£ 36	£ 88	£ 86
		Spirit	£ 93	£ 64	£ 128	£ 188
		RTD	£ 36	£ 11	£ 63	£ 52
	Total		£ 635	£ 294	£ 1,056	£ 2,130
Absolute change						
Mean consumption per person per week			-0.71	-0.16	-1.34	-5.64
Mean consumption per drinker per week			-0.84	-0.19	-1.34	-5.64
% change in mean consumption			-5.4%	-3.2%	-4.9%	-8.7%
Change in volume of consumption (units per drinker per year)	Off-trade	Beer	-21.87	-2.92	-33.74	-168.57
		Wine	-12.83	-5.13	-23.53	-55.75
		Spirit	-19.63	-5.09	-33.07	-120.61
		RTD	-0.18	-0.10	-0.22	-0.90
	On-trade	Beer	10.13	2.75	19.52	49.90
		Wine	0.10	0.01	0.27	0.25
		Spirit	0.49	0.32	0.71	1.52
		RTD	0.09	0.04	0.15	0.23
	Total		-43.71	-10.11	-69.91	-293.93
Change in £ value of purchases (sales) (£ per drinker per year)	Off-trade	Beer	£2.41	£1.26	£3.66	£10.39
		Wine	£12.09	£3.86	£24.88	£52.19
		Spirit	£2.59	£1.42	£3.92	£10.95
		RTD	£0.23	£0.16	£0.24	£0.90
	On-trade	Beer	£12.21	£3.48	£23.45	£59.19
		Wine	£0.20	£0.01	£0.53	£0.57
		Spirit	£0.85	£0.59	£1.21	£2.43
		RTD	£0.16	£0.08	£0.27	£0.40
	Total		£30.74	£10.86	£58.16	£137.01
Effect of policy on "pocket" if drinkers did not change consumption (£ per drinker per year)	Off-trade	Beer	£11.66	£2.54	£18.01	£80.96
		Wine	£18.50	£6.64	£36.50	£78.23
		Spirit	£11.03	£3.70	£18.20	£61.87
		RTD	£0.36	£0.23	£0.41	£1.52
	On-trade	Beer	£0.04	£0.00	£0.03	£0.42
		Wine	£0.00	£0.00	£0.00	£0.00
		Spirit	£0.00	£0.00	£0.01	£0.00
		RTD	£0.00	£0.00	£0.00	£0.00
	Total		£41.59	£13.11	£73.16	£223.00
Total change in retailer received £m (after VAT+Duty)	Off-trade		£m 90.6	£m 19.4	£m 40.8	£m 32.4
	On-trade		£m 39.3	£m 7.7	£m 18.5	£m 13.0
	Total		£m 129.9	£m 27.1	£m 59.3	£m 45.4
Total Change in VAT & Duty Received	Off-trade		m -24.2	m -3.1	m -9.6	m -12.0
	On-trade		£m 12.2	£m 2.3	£m 5.8	£m 4.1
	Total		m -12.0	m -0.7	m -3.8	m -7.9
% change in spend / sales	Off-trade		+7.7%	+7.9%	+8.0%	+7.3%
	On-trade		+3.3%	+2.4%	+3.6%	+4.0%
	Total		+4.8%	+3.7%	+5.5%	+6.4%
Total Change Pop'n Spend (Sales)	Off-trade		£m 66.4	£m 16.3	£m 31.2	£m 20.4
	On-trade		£m 51.4	£m 10.1	£m 24.3	£m 17.1
	Total		£m 117.8	£m 26.4	£m 55.5	£m 37.5

Table 3.5: Results table for 40p minimum price plus total off-trade discount ban – scenario 15 (consumption effect)

Males and Females Harm Reductions Absolute change			Scotland 11 +	Moderate 18 +	Hazardous 11 +	Harmful 11 +
Health Changes in Year 1	Deaths	Chronic	-31	-1	-12	-18
		Acute	-40	-15	-15	-11
		Total	-71	-15	-27	-29
	Illnesses	Chronic	-256	-25	-88	-143
		Acute	-968	-346	-367	-254
		Total	-1,224	-371	-455	-396
	Admissions	Chronic	-497	-46	-165	-287
		Acute	-1,101	-388	-421	-291
		Total	-1,599	-434	-585	-578
	QALYs per annum		-349	-106	-133	-110
	Value of 'saved' QALYs		-17,450,406	-5,308,194	-6,631,200	-5,482,984
	Cost (£)	Chronic	-1,464,875	-165,680	-521,373	-777,554
		Acute	-5,401,561	-1,901,581	-2,051,462	-1,441,255
		Total (£)	-6,866,437	-2,067,261	-2,572,835	-2,218,809
Health Changes per annum in Year 10	Deaths p.a.	Chronic	-321	-2	-129	-190
		Acute	-44	-16	-18	-11
		Total	-365	-18	-147	-201
	Illnesses p.a.	Chronic	-2,629	-239	-949	-1,440
		Acute	-1,046	-367	-424	-253
		Total	-3,675	-606	-1,374	-1,694
	Admissions p.a.	Chronic	-5,110	-431	-1,771	-2,908
		Acute	-1,179	-409	-479	-289
		Total	-6,289	-840	-2,250	-3,197
	QALYs per annum		-2,264	-498	-819	-947
	Cost (£)	Chronic	-14,925,299	-1,598,934	-5,565,488	-7,759,562
		Acute	-5,833,979	-2,019,525	-2,366,180	-1,441,356
		Total (£)	-20,759,278	-3,618,459	-7,931,668	-9,200,918
Cumulative Health Change over 10 yrs	Discounted QALYs		-10,477	-2,338	-3,870	-4,263
	Discounted Costs		-115,709,775	-24,023,647	-43,384,271	-48,235,398
	Value of Discounted QALYs		-523,839,116	-116,897,449	-193,502,354	-213,158,778
	Total Value of Health Changes		-639,548,891	-140,921,096	-236,886,625	-261,394,176
Crime Changes per annum	Volume	Violent	-851	-128	-424	-293
		Damage	-1,304	-157	-660	-474
		Theft/Oth	-1,075	-174	-522	-351
		Total	-3,229	-459	-1,606	-1,118
	Cost (£)	Violent	-1,271,939	-198,691	-623,192	-443,567
		Damage	-1,130,381	-135,996	-572,080	-410,558
		Theft/Oth	-344,974	-63,858	-161,679	-108,380
		Total (£)	-2,747,294	-398,545	-1,356,951	-962,505
	QALYs	Violent	-24	-4	-12	-8
		Damage	0	0	0	0
		Theft/Oth	0	0	0	0
	Total	Total	-24	-4	-12	-8
	Value of 'saved' QALYs		-1,949,789	-316,831	-943,105	-685,222
Employment Changes per annum	Volume	Absence days	-28,643	-8,653	-11,681	-8,247
		Unempl people	-1,242	0	0	-1,242
	Cost (£)	Absence	-2,662,548	-794,678	-1,070,821	-795,321
		Unempl	-29,435,398	0	0	-29,435,398
		Total (£)	-32,097,946	-794,678	-1,070,821	-30,230,719
Summary Financial Value Harm Reduction Year 1	Health Costs (£)		-6,866,437	-2,067,261	-2,572,835	-2,218,809
	Crime Costs (£)		-2,747,294	-398,545	-1,356,951	-962,505
	Employment Costs (£)		-32,097,946	-794,678	-1,070,821	-30,230,719
	Total Direct Costs (£)		-41,711,676	-3,260,485	-5,000,607	-33,412,032
	Health QALYs (£)		-17,450,406	-5,308,194	-6,631,200	-5,482,984
	Crime QALYs (£)		-1,949,789	-316,831	-943,105	-685,222
	Total Societal Value (£)		-61,111,871	-8,885,510	-12,574,913	-39,580,238
Cumul 10 year Summary Financial Value Harm Reduction	Health Costs (£)		-115,709,775	-24,023,647	-43,384,271	-48,235,398
	Crime Costs (£)		-22,848,158	-3,314,544	-11,285,222	-8,004,774
	Employment Costs (£)		-266,945,948	-6,609,025	-8,905,598	-251,416,955
	Total Direct Costs (£)		-405,503,882	-33,947,216	-63,575,091	-307,657,127
	Health QALYs (£)		-523,839,116	-116,897,449	-193,502,354	-213,158,778
	Crime QALYs (£)		-17,981,312	-2,921,874	-8,697,488	-6,319,243
	Total Societal Value (£)		-947,324,309	-153,766,539	-265,774,933	-527,135,148

Table 3.6: Results table for 40p minimum price plus total off-trade discount ban – scenario 15 (harm effect)

Workplace harms are reduced by 1,200 fewer unemployed people and 29,000 fewer sick days per year.

The societal value of these harm reductions is £950m in total over the 10 year period modelled. In the first year, the estimated societal value of the harm reductions is as follows: NHS cost reductions (£6.9m), value of QALYs saved (£17.5m), crime costs saved (£2.7m), value of crime QALYs saved (£1.9m) and employment related harms avoided (£32.1m).

The societal value of harm reductions is distributed differentially across the groups, with hazardous drinkers accounting for £270m of the total value, harmful drinkers £530m and moderate drinkers £150m.

Returning to Table 3.5, the spending and sales results are as follows:

Absolute reductions in consumption are estimated to be largest in off-trade beer/cider and off-trade spirit, with a notable reduction also occurring in off-trade wine. There is a large absolute increase in consumption of on-trade beer/cider.

The cost impact of the policy on consumers varies substantially between drinker types:

- Harmful drinkers: £137 per drinker per annum
- Hazardous drinkers: £58 per drinker per annum
- Moderate drinkers: £11 per drinker per annum.

An overall increased spend by consumers is estimated of £120m per annum, split roughly 55:45 between off-trade and on-trade sectors.

Overall revenue to the Treasury (from duty and VAT receipts) changes by -£12m.

3.2 ESTIMATED IMPACTS ACROSS ALL POLICIES

Consumption and harm impacts across all policies are shown for the overall population of Scotland in Table 3.7 through Table 3.10.

3.2.1 Summary tables of pricing policies – Scotland

SUMMARY - TOTAL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.2%	-1.9	+1.5	-1.0	+0.0	-1.3	+8.4	+6.4	-0.6	+2.0	+16.1	+0.7%	+4.20	+2.13
2 Minimum price 30p	-0.5%	-4.1	+3.3	-3.2	+0.0	-4.0	+17.8	+12.9	-2.3	+4.0	+32.4	+1.3%	+8.46	+5.24
3 Minimum price 35p	-1.3%	-6.8	+4.6	-8.4	+0.0	-10.5	+32.8	+21.5	-6.6	+6.7	+54.4	+2.2%	+14.20	+11.42
4 Minimum price 40p	-2.7%	-9.9	+3.3	-15.8	+0.0	-22.3	+53.9	+32.7	-14.2	+10.1	+82.6	+3.4%	+21.54	+21.84
5 Minimum price 45p	-4.7%	-13.8	+0.2	-25.1	+0.1	-38.6	+77.2	+45.3	-24.9	+14.0	+111.7	+4.6%	+29.13	+36.03
6 Minimum price 50p	-7.2%	-18.3	-5.3	-35.1	+0.1	-58.7	+99.9	+59.0	-38.5	+18.2	+138.6	+5.7%	+36.16	+53.44
7 Minimum price 55p	-10.0%	-22.4	-13.8	-45.4	+0.0	-81.6	+121.2	+73.9	-54.2	+22.7	+163.5	+6.7%	+42.66	+73.94
8 Minimum price 60p	-12.9%	-24.9	-24.0	-56.0	+0.0	-104.9	+139.6	+90.1	-70.8	+27.3	+186.2	+7.7%	+48.57	+96.60
9 Minimum price 65p	-15.9%	-27.5	-35.5	-66.4	-0.0	-129.5	+151.2	+107.7	-89.2	+32.0	+201.7	+8.3%	+52.63	+120.75
10 Minimum price 70p	-18.9%	-30.3	-47.8	-75.7	-0.0	-153.9	+155.5	+125.7	-108.3	+36.8	+209.8	+8.6%	+54.73	+145.61
11 Total off-trade discount ban	-3.0%	-4.9	-14.9	-4.6	-0.1	-24.5	+48.6	+11.0	-11.0	+3.4	+52.0	+2.1%	+13.57	+23.62
12 Minimum price 25p + total off-t discount ban	-3.2%	-6.3	-13.8	-5.6	-0.1	-25.8	+55.3	+16.5	-11.8	+5.1	+65.2	+2.7%	+17.00	+25.45
13 Minimum price 30p + total off-t discount ban	-3.5%	-7.9	-12.5	-7.7	-0.1	-28.1	+62.7	+21.9	-13.4	+6.8	+78.0	+3.2%	+20.34	+27.93
14 Minimum price 35p + total off-t discount ban	-4.1%	-9.6	-11.6	-12.5	-0.1	-33.7	+74.5	+29.3	-17.4	+9.1	+95.6	+3.9%	+24.94	+32.99
15 Minimum price 40p + total off-t discount ban	-5.4%	-11.7	-12.7	-19.1	-0.1	-43.7	+90.6	+39.3	-24.2	+12.2	+117.8	+4.8%	+30.74	+41.59
16 Minimum price 45p + total off-t discount ban	-7.1%	-14.8	-15.2	-27.5	-0.1	-57.6	+107.9	+50.7	-34.0	+15.7	+140.3	+5.8%	+36.61	+53.45
17 Minimum price 50p + total off-t discount ban	-9.2%	-18.8	-19.3	-36.6	-0.1	-74.8	+123.9	+63.3	-46.4	+19.6	+160.5	+6.6%	+41.86	+68.13
18 Minimum price 55p + total off-t discount ban	-11.7%	-22.5	-25.9	-46.4	-0.1	-94.9	+138.6	+77.4	-61.0	+23.8	+178.7	+7.3%	+46.62	+85.99
19 Minimum price 60p + total off-t discount ban	-14.3%	-24.8	-34.5	-56.8	-0.1	-116.2	+151.6	+93.1	-77.1	+28.2	+195.8	+8.0%	+51.07	+106.67
20 Minimum price 65p + total off-t discount ban	-17.1%	-27.3	-44.8	-67.1	-0.1	-139.3	+158.9	+110.2	-95.0	+32.8	+206.9	+8.5%	+53.97	+129.37
21 Minimum price 70p + total off-t discount ban	-20.0%	-30.0	-56.2	-76.3	-0.2	-162.7	+159.7	+127.9	-113.9	+37.5	+211.3	+8.7%	+55.12	+153.15

Table 3.7: Summary of estimated effects of price policies on consumption, spending and sales - Scotland population

SUMMARY - TOTAL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-1	-0.0	+0.0	-0.0	+0.0	-14	-0.1	+0.0	-0.2	-0.2	+0.1	+0.1	+0.0	+0.2	+0.0	-0.2	-0.1
2 Minimum price 30p	-6	-0.0	-0.0	-0.1	-0.0	-41	-0.3	-0.0	-0.7	-0.9	+0.0	+0.1	+0.0	+0.1	+0.0	-1.3	-0.2
3 Minimum price 35p	-18	-0.1	-0.2	-0.4	-0.1	-104	-0.8	-0.2	-1.8	-2.7	-0.1	-0.1	-0.1	-0.3	-0.0	-4.7	-0.4
4 Minimum price 40p	-39	-0.2	-0.5	-0.8	-0.2	-213	-1.5	-0.5	-3.6	-5.7	-0.3	-0.5	-0.4	-1.1	-0.0	-11.6	-0.8
5 Minimum price 45p	-68	-0.3	-0.9	-1.5	-0.3	-354	-2.5	-1.0	-6.0	-9.8	-0.7	-1.0	-0.8	-2.5	-0.0	-21.7	-1.2
6 Minimum price 50p	-101	-0.4	-1.3	-2.2	-0.5	-520	-3.7	-1.5	-8.9	-14.6	-1.1	-1.7	-1.3	-4.2	-0.0	-34.6	-1.7
7 Minimum price 55p	-137	-0.5	-1.9	-3.0	-0.7	-695	-5.0	-2.0	-12.0	-19.9	-1.6	-2.6	-2.0	-6.2	-0.0	-49.9	-2.2
8 Minimum price 60p	-174	-0.6	-2.4	-3.9	-0.9	-866	-6.3	-2.6	-15.1	-25.2	-2.2	-3.4	-2.6	-8.3	-0.1	-66.1	-2.6
9 Minimum price 65p	-212	-0.7	-3.0	-4.8	-1.1	-1039	-7.5	-3.3	-18.2	-30.7	-2.8	-4.3	-3.3	-10.4	-0.1	-83.5	-3.0
10 Minimum price 70p	-248	-0.8	-3.6	-5.7	-1.3	-1204	-8.8	-3.9	-21.3	-36.1	-3.4	-5.3	-4.0	-12.7	-0.1	-101.0	-3.3
11 Total off-trade discount ban	-37	-0.1	-0.5	-0.9	-0.2	-182	-1.3	-0.6	-3.2	-5.5	-0.7	-1.0	-0.8	-2.4	-0.0	-18.8	-0.6
12 Minimum price 25p + total off-t discount ban	-39	-0.1	-0.6	-0.9	-0.2	-196	-1.4	-0.6	-3.4	-5.8	-0.6	-0.9	-0.8	-2.3	-0.0	-19.2	-0.7
13 Minimum price 30p + total off-t discount ban	-43	-0.2	-0.6	-1.0	-0.2	-219	-1.6	-0.6	-3.8	-6.4	-0.6	-0.9	-0.8	-2.3	-0.0	-20.1	-0.8
14 Minimum price 35p + total off-t discount ban	-53	-0.2	-0.7	-1.2	-0.3	-274	-2.0	-0.8	-4.7	-7.9	-0.7	-1.0	-0.9	-2.6	-0.0	-23.0	-1.0
15 Minimum price 40p + total off-t discount ban	-71	-0.3	-1.0	-1.6	-0.3	-365	-2.6	-1.0	-6.3	-10.5	-0.9	-1.3	-1.1	-3.2	-0.0	-28.6	-1.2
16 Minimum price 45p + total off-t discount ban	-95	-0.3	-1.3	-2.1	-0.5	-484	-3.5	-1.4	-8.3	-13.9	-1.1	-1.7	-1.4	-4.3	-0.0	-37.0	-1.6
17 Minimum price 50p + total off-t discount ban	-123	-0.4	-1.7	-2.8	-0.6	-624	-4.5	-1.8	-10.8	-18.0	-1.5	-2.3	-1.8	-5.7	-0.0	-47.9	-2.0
18 Minimum price 55p + total off-t discount ban	-155	-0.5	-2.1	-3.5	-0.8	-778	-5.6	-2.3	-13.5	-22.6	-2.0	-3.0	-2.4	-7.4	-0.1	-61.0	-2.4
19 Minimum price 60p + total off-t discount ban	-189	-0.7	-2.7	-4.3	-0.9	-934	-6.8	-2.9	-16.3	-27.4	-2.5	-3.8	-3.0	-9.3	-0.1	-75.6	-2.8
20 Minimum price 65p + total off-t discount ban	-225	-0.8	-3.2	-5.1	-1.1	-1096	-8.0	-3.5	-19.3	-32.7	-3.0	-4.7	-3.6	-11.3	-0.1	-91.7	-3.1
21 Minimum price 70p + total off-t discount ban	-259	-0.9	-3.8	-6.0	-1.3	-1252	-9.2	-4.1	-22.3	-37.7	-3.6	-5.6	-4.3	-13.4	-0.1	-108.3	-3.3

Table 3.8: Summary of estimated effects of price policies on health, crime and employment related harm - Scotland population

SUMMARY - CHANGE IN TOTAL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
Baseline alcohol attributable harm (estimated by modelling zero consumption)	+845	+2	+22	+30	+8	+1954	+22	+22	+66	+129	+81	+135	+93	+309	+2	+1069	+5
Minimum price 25p	-0.2%	-0.6%	0.1%	0.0%	0.1%	-0.7%	-0.5%	0.1%	-0.3%	-0.2%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	-1.6%
Minimum price 30p	-0.7%	-1.6%	-0.2%	-0.4%	-0.2%	-2.1%	-1.4%	-0.2%	-1.0%	-0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	-0.1%	-4.0%
Minimum price 35p	-2.2%	-3.9%	-0.9%	-1.3%	-1.0%	-5.3%	-3.5%	-1.0%	-2.7%	-2.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.4%	-8.5%
Minimum price 40p	-4.7%	-7.8%	-2.2%	-2.8%	-2.2%	-10.9%	-7.1%	-2.4%	-5.5%	-4.5%	-0.4%	-0.3%	-0.4%	-0.4%	-0.4%	-1.1%	-15.3%
Minimum price 45p	-8.0%	-12.8%	-4.0%	-4.8%	-4.0%	-18.1%	-11.8%	-4.3%	-9.2%	-7.6%	-0.8%	-0.8%	-0.9%	-0.8%	-0.9%	-2.0%	-23.6%
Minimum price 50p	-11.9%	-18.6%	-6.1%	-7.3%	-6.2%	-26.6%	-17.3%	-6.6%	-13.5%	-11.3%	-1.4%	-1.3%	-1.4%	-1.4%	-1.5%	-3.2%	-32.8%
Minimum price 55p	-16.3%	-24.8%	-8.5%	-10.1%	-8.6%	-35.6%	-23.2%	-9.2%	-18.2%	-15.4%	-2.0%	-1.9%	-2.1%	-2.0%	-2.2%	-4.7%	-42.0%
Minimum price 60p	-20.6%	-30.9%	-11.0%	-12.9%	-11.1%	-44.3%	-29.0%	-12.0%	-22.8%	-19.5%	-2.7%	-2.5%	-2.8%	-2.7%	-3.0%	-6.2%	-49.7%
Minimum price 65p	-25.1%	-37.1%	-13.7%	-15.8%	-13.7%	-53.2%	-35.1%	-14.8%	-27.6%	-23.7%	-3.4%	-3.2%	-3.6%	-3.4%	-3.8%	-7.8%	-56.6%
Minimum price 70p	-29.4%	-43.1%	-16.4%	-18.8%	-16.5%	-61.6%	-40.9%	-17.9%	-32.4%	-27.9%	-4.2%	-3.9%	-4.4%	-4.1%	-4.5%	-9.4%	-62.1%
Total off-trade discount ban	-4.4%	-6.4%	-2.5%	-2.9%	-2.6%	-9.3%	-6.1%	-2.6%	-4.9%	-4.3%	-0.8%	-0.7%	-0.9%	-0.8%	-0.9%	-1.8%	-11.5%
Minimum price 25p + total off-t discount ban	-4.6%	-6.9%	-2.6%	-3.0%	-2.7%	-10.0%	-6.6%	-2.7%	-5.2%	-4.5%	-0.8%	-0.7%	-0.8%	-0.7%	-0.8%	-1.8%	-12.8%
Minimum price 30p + total off-t discount ban	-5.1%	-7.7%	-2.8%	-3.3%	-2.9%	-11.2%	-7.4%	-2.9%	-5.8%	-5.0%	-0.8%	-0.7%	-0.8%	-0.8%	-0.8%	-1.9%	-14.7%
Minimum price 35p + total off-t discount ban	-6.3%	-9.7%	-3.4%	-4.0%	-3.5%	-14.0%	-9.2%	-3.6%	-7.2%	-6.1%	-0.8%	-0.8%	-0.9%	-0.8%	-0.9%	-2.1%	-18.2%
Minimum price 40p + total off-t discount ban	-8.4%	-13.0%	-4.4%	-5.3%	-4.5%	-18.7%	-12.2%	-4.7%	-9.5%	-8.1%	-1.0%	-1.0%	-1.2%	-1.0%	-1.2%	-2.7%	-23.7%
Minimum price 45p + total off-t discount ban	-11.2%	-17.2%	-5.9%	-7.0%	-6.0%	-24.8%	-16.2%	-6.3%	-12.6%	-10.8%	-1.4%	-1.3%	-1.5%	-1.4%	-1.5%	-3.5%	-30.5%
Minimum price 50p + total off-t discount ban	-14.6%	-22.2%	-7.7%	-9.1%	-7.8%	-31.9%	-20.9%	-8.3%	-16.3%	-13.9%	-1.9%	-1.7%	-2.0%	-1.8%	-2.1%	-4.5%	-38.2%
Minimum price 55p + total off-t discount ban	-18.4%	-27.7%	-9.8%	-11.5%	-9.9%	-39.8%	-26.1%	-10.6%	-20.5%	-17.5%	-2.4%	-2.3%	-2.6%	-2.4%	-2.7%	-5.7%	-45.8%
Minimum price 60p + total off-t discount ban	-22.3%	-33.2%	-12.1%	-14.1%	-12.2%	-47.8%	-31.4%	-13.1%	-24.7%	-21.2%	-3.0%	-2.8%	-3.2%	-3.0%	-3.4%	-7.1%	-52.5%
Minimum price 65p + total off-t discount ban	-26.6%	-39.1%	-14.8%	-17.0%	-14.9%	-56.1%	-37.0%	-16.0%	-29.3%	-25.3%	-3.7%	-3.5%	-3.9%	-3.7%	-4.1%	-8.6%	-58.7%
Minimum price 70p + total off-t discount ban	-30.6%	-44.8%	-17.2%	-19.8%	-17.3%	-64.1%	-42.6%	-18.7%	-33.8%	-29.2%	-4.4%	-4.1%	-4.6%	-4.4%	-4.8%	-10.1%	-63.7%

Table 3.9: Summary of estimated percentage change in alcohol-attributable health, crime and employment harms - Scotland population

SUMMARY - TOTAL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.0	+.2	-.0	-2.1	-2.0	+.2	+.1	-1.7	-2	+1	-	-18	-19	-10	+1	-28
2 Minimum price 30p	-0.4	+.1	-.1	-5.3	-5.8	-.9	+.1	-6.6	-10	+1	-1	-44	-55	-46	+1	-100
3 Minimum price 35p	-1.6	-.2	-.4	-11.0	-13.2	-3.8	-.2	-17.2	-30	-2	-4	-91	-127	-135	-2	-264
4 Minimum price 40p	-3.5	-1.0	-1.1	-19.4	-25.0	-8.6	-.7	-34.3	-64	-8	-9	-161	-242	-287	-6	-536
5 Minimum price 45p	-6.2	-2.1	-2.0	-29.6	-40.0	-15.5	-1.5	-57.0	-109	-18	-17	-246	-390	-491	-14	-895
6 Minimum price 50p	-9.5	-3.6	-3.2	-40.9	-57.2	-23.7	-2.6	-83.4	-163	-30	-27	-340	-560	-732	-24	-1,315
7 Minimum price 55p	-13.1	-5.3	-4.6	-52.2	-75.2	-33.0	-3.8	-112.0	-222	-44	-39	-434	-738	-995	-35	-1,768
8 Minimum price 60p	-16.9	-7.1	-6.1	-61.4	-91.5	-42.7	-5.0	-139.2	-282	-59	-51	-511	-903	-1,260	-46	-2,209
9 Minimum price 65p	-20.9	-8.9	-7.7	-69.8	-107.3	-52.8	-6.3	-166.5	-345	-74	-64	-581	-1,064	-1,533	-58	-2,654
10 Minimum price 70p	-25.0	-10.8	-9.4	-76.8	-121.9	-63.4	-7.6	-192.9	-408	-90	-78	-638	-1,214	-1,803	-70	-3,086
11 Total off-trade discount ban	-3.8	-2.1	-1.8	-14.1	-21.7	-9.8	-1.5	-33.0	-61	-17	-15	-117	-209	-276	-14	-499
12 Minimum price 25p + total off-t discount ban	-3.9	-2.0	-1.8	-15.8	-23.5	-10.2	-1.4	-35.2	-64	-16	-15	-132	-227	-292	-13	-532
13 Minimum price 30p + total off-t discount ban	-4.3	-2.0	-1.9	-18.3	-26.4	-11.1	-1.4	-38.9	-71	-16	-16	-152	-255	-322	-13	-590
14 Minimum price 35p + total off-t discount ban	-5.2	-2.2	-2.1	-22.7	-32.3	-13.3	-1.6	-47.2	-87	-18	-18	-189	-312	-396	-15	-723
15 Minimum price 40p + total off-t discount ban	-6.9	-2.7	-2.7	-29.4	-41.7	-17.5	-1.9	-61.1	-116	-23	-22	-245	-406	-524	-18	-947
16 Minimum price 45p + total off-t discount ban	-9.1	-3.6	-3.4	-37.9	-54.1	-23.1	-2.6	-79.8	-154	-30	-29	-315	-528	-694	-24	-1,246
17 Minimum price 50p + total off-t discount ban	-11.9	-4.8	-4.5	-47.3	-68.5	-30.1	-3.4	-102.1	-200	-40	-37	-394	-671	-899	-32	-1,602
18 Minimum price 55p + total off-t discount ban	-15.1	-6.3	-5.7	-56.7	-83.8	-38.3	-4.5	-126.6	-252	-52	-47	-472	-824	-1,130	-41	-1,995
19 Minimum price 60p + total off-t discount ban	-18.6	-7.9	-7.0	-64.9	-98.4	-47.1	-5.6	-151.1	-307	-66	-58	-539	-971	-1,371	-52	-2,394
20 Minimum price 65p + total off-t discount ban	-22.5	-9.6	-8.5	-72.4	-113.1	-57.2	-6.8	-177.0	-368	-80	-71	-602	-1,121	-1,633	-63	-2,817
21 Minimum price 70p + total off-t discount ban	-26.2	-11.4	-10.0	-78.7	-126.4	-66.7	-8.0	-201.2	-426	-95	-83	-655	-1,260	-1,884	-74	-3,218

Table 3.10: Summary of financial valuation of pricing policies on health, crime and employment alcohol related harms - Scotland population

3.2.2 Consumption, spending and sales effects across all policies

Table 3.7 shows the model estimates for overall changes in consumption, spending and sales for the population of Scotland for the 21 pricing policy scenarios examined. Equivalent tables for moderate, hazardous and harmful drinkers are provided in Section 3.2.6.

Increasing levels of minimum pricing show steep increases in effectiveness: if a minimum price is introduced, the effects on consumption become larger as the threshold minimum price per unit increases. For example, 30p gives -0.5% and 35p gives -1.3% - a difference of 0.8% points from scenario 2 to scenario 3 – whereas 40p gives -2.7% and 45p gives -4.7% - a difference of 2.0% points from scenario 4 to scenario 5.

Lower minimum price thresholds see reductions in beer/cider and spirit consumption but increases in wine consumption: whilst the net effect is a decrease in alcohol consumption, the consumer switching behaviour embedded in the elasticity matrices causes estimated increases in wine consumption in response to low minimum price thresholds. For example, for a 30p threshold, beer/cider consumption reduces by 4.1 units per drinker per annum, spirit consumption reduces by 3.2 units, RTD consumption is virtually unchanged, whilst wine consumption increases by 3.3 units (scenario 2). At a threshold of 50p (scenario 6), decreases are also estimated for wine, as shown in Figure 3.1.

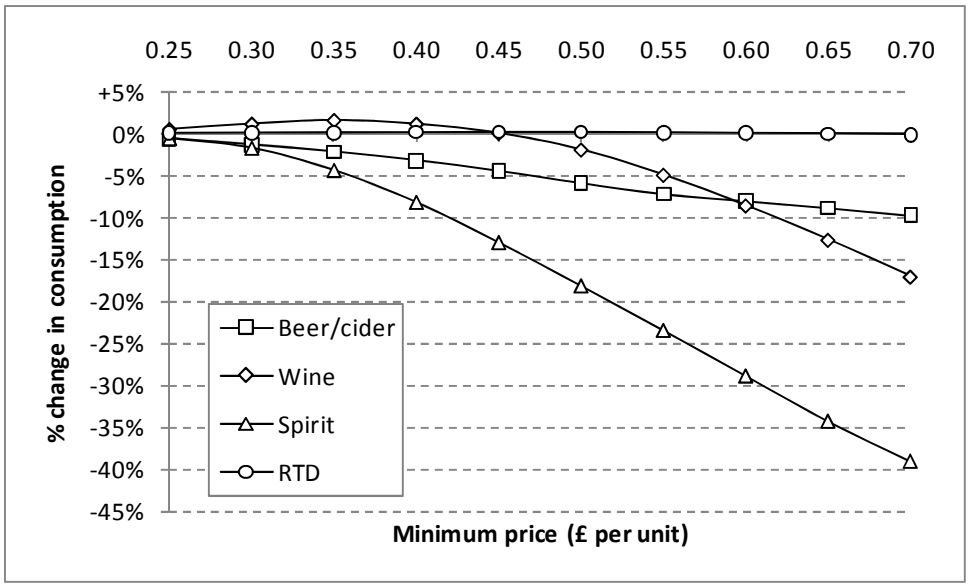


Figure 3.1: Estimated change in consumption of beer/cider, wine, spirit and RTD beverages at different minimum price thresholds (in the absence of an off-trade discount ban)

The consumption impact of a total ban on off-trade discounting is similar to the impact of a minimum price policy in the region 40p to 45p: the estimated change in mean

consumption for a discount ban is -3.0%, compared to -2.7% and -4.7% for 40p and 45p minimum prices respectively (compare scenario 11 with scenarios 4 and 5).

An off-trade discount ban affects wine consumption the most in absolute terms: change in mean consumption per drinker per annum is estimated to be -4.9 units for beer/cider, -4.6 units for spirit, -0.1 units for RTD and -14.9 units for wine (scenario 11). The impact on RTD, whilst small, is greater than that seen for any of the minimum price thresholds considered.

At lower minimum price thresholds, the combined effect of an off-trade discount ban and a minimum price is close to the individual effects of the polices added together: a 25p minimum price (-0.2% consumption change in isolation) gives -3.2% when combined with an off-trade discount ban (-3.0% in isolation); a 35p minimum price (-1.3% in isolation) gives -4.1% (compare scenario 11 with scenarios 1 and 3).

At higher minimum price thresholds, the marginal increased effectiveness of an off-trade discount ban is reduced: a 60p minimum price (-12.9% consumption change in isolation) gives -14.3% when combined with an off-trade discount ban (1.4% points extra effect from the ban); a 70p minimum price (-18.9% in isolation) gives -20.0% (1.1% points extra effect). The reducing additional effectiveness owing to the discount ban is shown graphically in Figure 3.2.

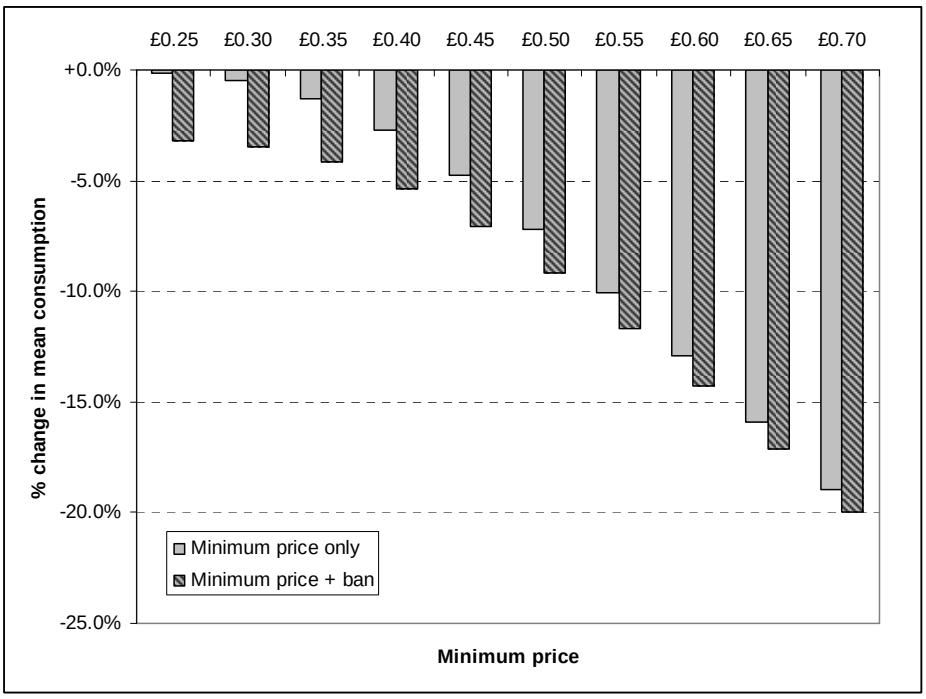


Figure 3.2: Estimated change in consumption for minimum price policies, in the presence or absence of an off-trade discount ban

The incremental effect of the off-trade ban at the level of modelled beverage category is shown in Figure 3.3. The additional impact has largely disappeared for beer/cider at a 45p minimum price threshold; the corresponding threshold is approximately 50p for spirit. For wine, additional impact is still observed at a 70p threshold.

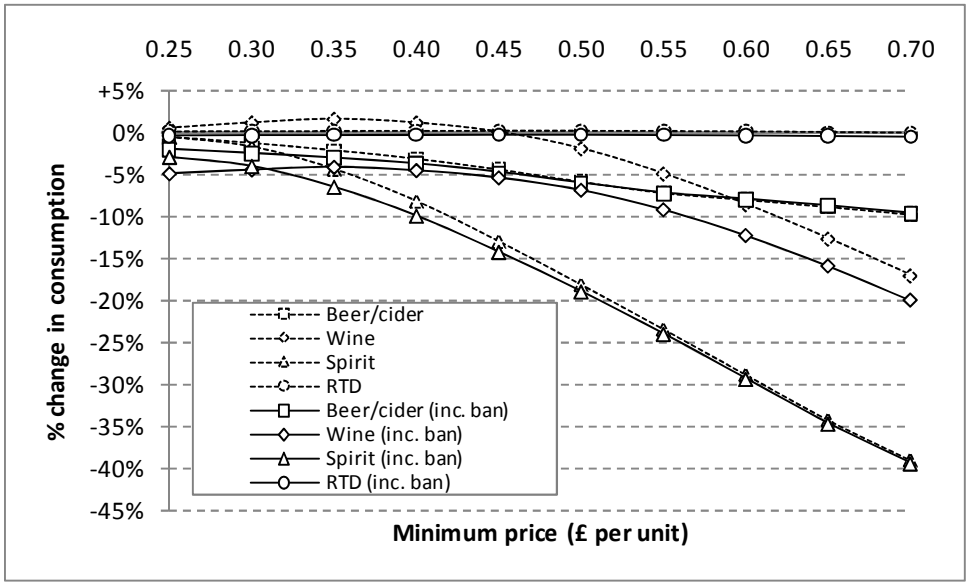


Figure 3.3: Estimated change in consumption of beer/cider, wine, spirit and RTD beverages at different minimum price thresholds (in the presence or absence of an off-trade discount ban)

Consumer spending is estimated to increase: consumption decreases do not keep pace with price increases and so overall spending rises. For example, under a 40p minimum price, consumption is estimated to reduce by 2.7% and overall spending increases by 3.4% (scenario 4).

Annual retail sales value is estimated to increase: the model predicts increases in both off-trade and on-trade retail receipts (excluding duty and VAT) for every policy analysed. Higher minimum prices lead to greater retail receipts. For example, the 40p threshold is estimated to increase annual off-trade receipts by £54m (compared to £100m for the 50p threshold). Similar increases are observed in the on-trade (eg. £33m for 40p versus £59m for 50p).

Effects on duty and sales tax are estimated to be relatively small: reduced receipts from the off-trade sector (eg. -£14m for a 40p minimum price) are partly, or in some cases totally, compensated by increased receipts from the on-trade sector (eg. +£10m for a 40p minimum price). The picture varies by policy because duty is applied to the volume of sales on a per unit basis (which in most scenarios is reducing) but the sales tax is applied to the monetary value of sales (which is increasing).

3.2.3 Health, crime and employment harm effects across all polices

Table 3.8 shows the results of each pricing scenario in terms of estimated changes in health, crime and employment alcohol-related harm for Scotland as a whole. Equivalent tables for population sub-groups are included in Section 3.2.7. Table 3.9 shows the impact in relative terms on the estimated baseline levels of alcohol-attributable harm in Scotland.

Low minimum price thresholds (eg. 25p per unit) have little impact at reducing harmful outcomes: for a 25p minimum price (scenario 1), the model estimates 1 fewer death in year 1 (0.2% of alcohol-attributable deaths), 200 fewer hospital admissions at full effect (0.3% of alcohol-attributable admissions) and 200 extra crimes (0.1% of alcohol-attributable offences). The small increase in crimes arises from the model predicting a small increase in consumption in 18 to 24 year old males for low-end minimum prices.

As the minimum price threshold increases, more deaths are avoided over the ten year period: for example, a move from a 40p to a 50p threshold changes the estimated year 1 deaths avoided from 39 to 101. The time to full effect of chronic disease risk function is modelled as ten years and so the results show the deaths avoided in year 10 are about five times greater than in year 1.

As the minimum price threshold increases, hospital admissions are estimated to reduce: for a 40p threshold the reduction in hospital admissions is estimated to be 3,600 per annum at full effect; this rises to 8,900 per annum for a 50p threshold.

As the minimum price threshold increases, crimes are estimated to reduce: small estimated increases in crime for low thresholds (eg. +100 offences for a 30p threshold) are replaced by larger decreases at higher thresholds (eg. -1,100 offences for a 40p threshold and -4,200 for a 50p threshold).

Crime-related harms are estimated to reduce proportionately less than health-related harms overall: for example, for the 40p minimum price, alcohol-attributable deaths at full effect are estimated to reduce by 10.9% whilst alcohol-related crimes reduce by 0.4%. This effect is related to the assumption that peak consumption levels under 4/3 units (males/females) do not incur excess risk of crime, and that (via the model relating mean consumption to peak consumption) peak consumption is less responsive to price changes than mean consumption.

As the minimum price threshold increases, absenteeism from work is estimated to reduce: a minimum price of 40p is estimated to reduce days absent from work by approximately 11,600 per annum, whereas for 50p the reduction is estimated at 34,600.

As the minimum price threshold increases, unemployment due to alcohol problems is estimated to reduce: in the model unemployment is a risk factor only for harmful drinkers. For a 40p threshold, 800 avoided cases of unemployment are estimated; for 50p the figure is 1,700.

The effectiveness of an off-trade ban relative to a defined minimum price varies depending on the type of harm considered: for health outcomes and unemployment, the estimated effect lies between a 35p and 40p minimum price threshold; for absenteeism, the estimated effect lies between 40p and 45p; for crime, the estimated effect is very close to a 45p minimum price policy.

3.2.4 Financial valuation of harm reduction across all policies

The financial value of harm reductions has been estimated for each policy incorporating:

- Costs to healthcare services
- Costs to the criminal justice system
- Costs of lost economic productivity due to days of absence
- Costs of lost economic productivity due to unemployment
- A financial value of the health gain (per QALY)
- A financial value for the crime impacts on quality of life (per QALY for the crime victims).

The financial valuation has been calculated for year 1 after the proposed policy is introduced and also cumulatively over the 10 year time horizon (accounting for discounting of costs and QALY benefits). Table 3.10 shows the results summary for the Scotland population.

As the minimum price threshold increases, the financial value of harm reductions increases: the overall cumulative discounted financial value of harm reduction over ten years is estimated at £540m for a 40p threshold; this valuation more than doubles for a 50p threshold (£1.3b). The valuation continues to increase steeply as the threshold is incremented.

The largest financially valued component of harm reduction is the estimated impact on health-related quality of life: for example, just over half of the total £540m harm reduction in the 40p minimum price scenario is from the valuation of health QALYs gained (at

£50,000 per QALY). Health-related quality of life is the largest component in all pricing scenarios, followed by the benefits due to reduced unemployment.

As the minimum price threshold increases, healthcare costs are reduced: for example health and social care costs avoided due to reduced illness and admissions are estimated to be £60m for the 40p threshold and £160m for the 50p threshold. The value of the health-related quality of life gains represents the largest component of health savings: estimated at £290m for 40p and £730m for 50p.

As the minimum price threshold increases, crime costs are reduced: for example, direct costs of crime reduce by approximately £10m per year for a 40p threshold compared to £30m for a 50p threshold. Similarly the value of the loss of victim quality of life changes from around £5m to £25m.

3.2.5 Differential effects of different policies on moderate, hazardous and harmful drinkers

This section presents findings on the scale of effects for moderate, hazardous and harmful drinkers. Summary tables for policies in terms of consumption and sales, harms, and financial valuations are located in Sections 3.2.6, 3.2.7 and 3.2.8 respectively. Note that this analysis excludes consideration of underage drinkers consuming within the current NHS guidelines for adults (although this group is included in the total figures for Scotland).

The reductions in annual hospital admissions saved in year 10 (when the full effect of the policy has been achieved) are shown for moderate, hazardous and harmful drinkers in Figure 3.4. Note that the pattern of savings shown for admissions is similar for other morbidity indicators. For all minimum price scenarios, with or without the presence of an off-trade discount ban, the majority of the savings come from the harmful drinking group even though these represent a small minority of drinkers. For low minimum price thresholds (30p and below) the only tangible savings are from harmful drinkers in the absence of a discount ban. The model suggests that, for the implementation of a ban in isolation, the admission savings from hazardous drinkers are slightly greater than for moderate drinkers. In all cases, moderate drinkers provide the smallest proportion of admissions avoided.

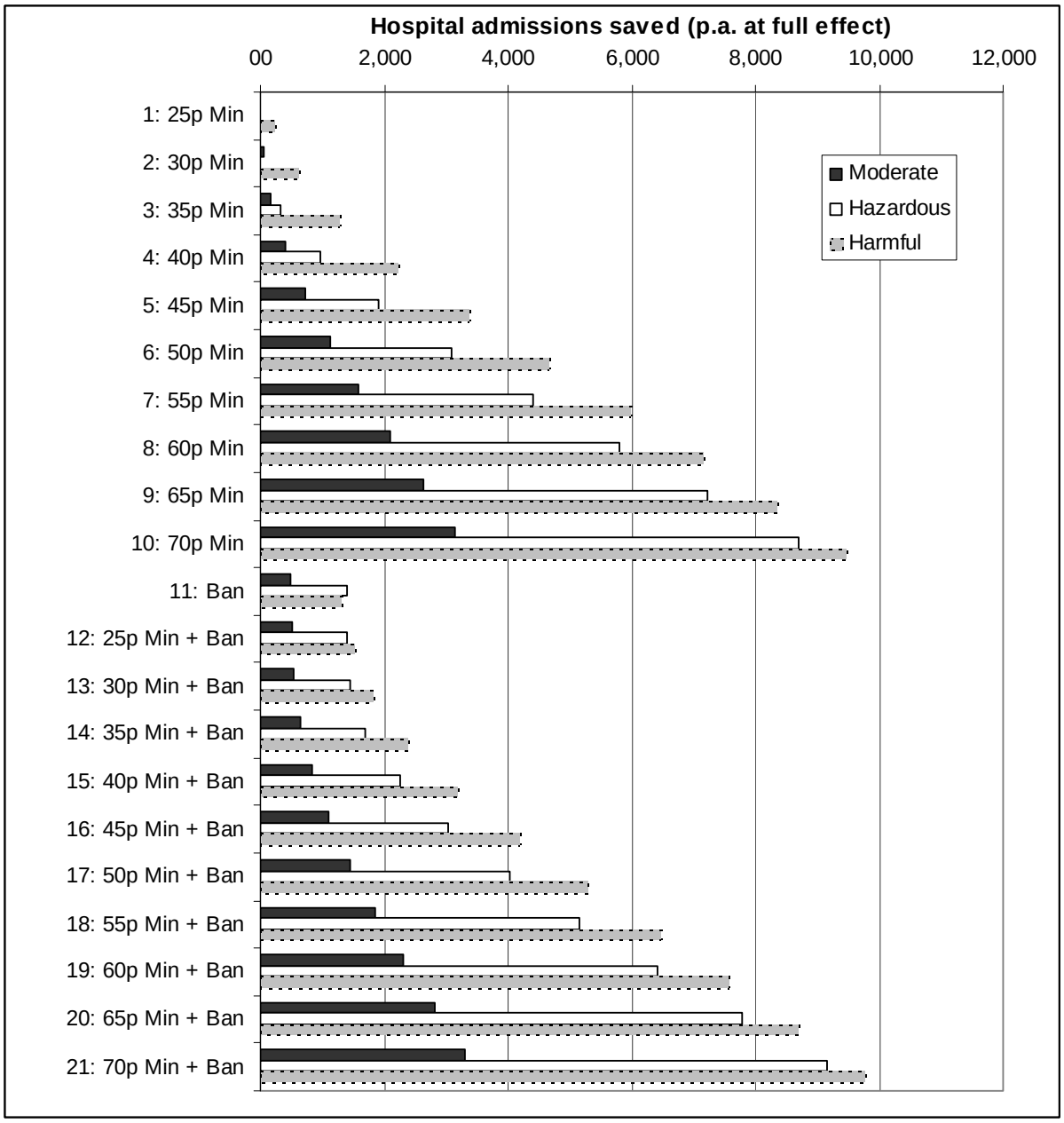


Figure 3.4: Hospital admissions saved per year for moderate, hazardous and harmful drinkers

The extra spending per drinker per year, broken down into moderate, hazardous and harmful drinkers is shown in Figure 3.5. These estimates take into account any changes in consumption that occur due to the price changes caused by each policy. Harmful drinkers account for the largest proportion of extra spending in each case, including the off-trade discount ban in isolation. For a 25p minimum price, the mean increase in spending for harmful drinkers is approximately £23 per year. Additional spending peaks at £187 per year for a 60p minimum price in combination with an off-trade discount ban. At higher minimum prices, the on-trade consumption of harmful drinkers is sufficiently affected (by price rises on cheaper on-trade beverages) to reduce the impact of switching behaviour towards this environment from the off-trade.

As also shown in Figure 3.5, the spending impact on moderate drinkers is much lower than that observed above for harmful drinkers. A 25p minimum price in isolation is estimated to lead to an extra £1 per year on spending by moderate drinkers. The most effective policy considered (from both a consumption reduction and financial value of harm reduction perspective) is the most costly to moderate drinkers: the 70p minimum price in combination with an off-trade discount ban is estimated to produce a mean spending increase of £25 per year in this group. Consistently therefore, on average, harmful drinkers benefit more than moderate drinkers in terms of reduction in personal health harm and also pay more as a result of the policy to attenuate the excess burden they place on the heath service.

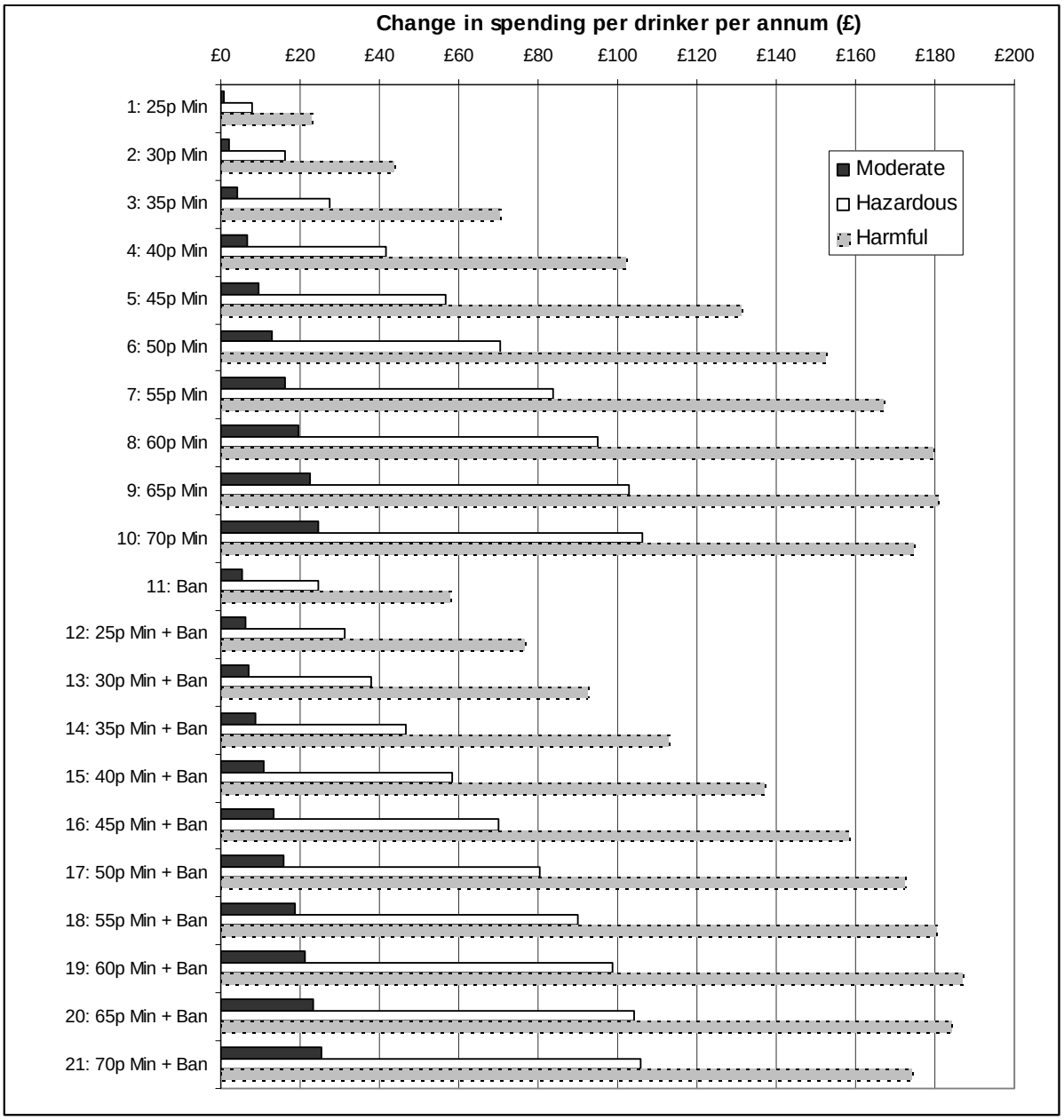


Figure 3.5: Extra spending on alcohol, per drinker per year, after policy implementation

Other differential effects of note include:

- Crime – as shown in the tables in Section 3.2.7, reductions in offences are spread more evenly between the three drinker groups than for health-related outcomes. For example, for an off-trade discount ban, the reduction in crime volumes per annum is estimated to comprise 700 from moderate drinkers, 1,200 from hazardous drinkers and 500 from harmful drinkers. This effect arises because a large proportion of alcohol-related crime occurs in younger people, some of whom are hazardous drinkers but very few of whom are harmful drinkers
- Financial value of harm reduction – the majority of the estimated value comes from the reduction in harms associated with harmful drinkers. Of the £950m harm reduction estimated for a 40p minimum price in combination with a discount ban, close to £530m is from harmful drinkers.

3.2.6 Summary tables for consumption analysis of pricing policies by population sub-group

SUMMARY - MODERATE	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	+0.0%	-0.0	+0.1	-0.1	+0.0	+0.0	+1.0	+1.2	-0.0	+0.4	+2.5	+0.3%	+1.01	+0.42
2 Minimum price 30p	-0.1%	+0.0	+0.3	-0.6	+0.0	-0.3	+2.4	+2.5	-0.2	+0.8	+5.4	+0.8%	+2.21	+1.12
3 Minimum price 35p	-0.5%	+0.1	+0.2	-1.8	+0.0	-1.6	+5.1	+4.2	-0.8	+1.3	+9.9	+1.4%	+4.07	+2.80
4 Minimum price 40p	-1.3%	+0.1	-0.7	-3.6	+0.0	-4.1	+9.4	+6.4	-1.7	+1.9	+16.1	+2.2%	+6.62	+5.77
5 Minimum price 45p	-2.5%	-0.0	-2.0	-5.9	+0.0	-7.8	+14.9	+8.9	-3.1	+2.7	+23.4	+3.3%	+9.63	+10.07
6 Minimum price 50p	-3.9%	-0.2	-3.9	-8.5	+0.0	-12.6	+21.1	+11.6	-4.9	+3.5	+31.3	+4.4%	+12.89	+15.54
7 Minimum price 55p	-5.7%	-0.5	-6.6	-11.3	-0.0	-18.4	+27.7	+14.5	-7.1	+4.4	+39.5	+5.5%	+16.27	+22.16
8 Minimum price 60p	-7.7%	-0.9	-9.7	-14.2	-0.0	-24.8	+33.9	+17.7	-9.6	+5.3	+47.3	+6.6%	+19.48	+29.62
9 Minimum price 65p	-9.9%	-1.3	-13.1	-17.2	-0.0	-31.8	+39.1	+21.3	-12.6	+6.3	+54.1	+7.6%	+22.30	+37.73
10 Minimum price 70p	-12.1%	-1.7	-16.7	-20.3	-0.1	-38.8	+43.1	+25.0	-15.7	+7.3	+59.7	+8.4%	+24.60	+46.14
11 Total off-trade discount ban	-2.1%	-0.5	-4.5	-1.5	-0.1	-6.6	+11.8	+2.2	-1.5	+0.7	+13.2	+1.8%	+5.42	+8.31
12 Minimum price 25p + total off-t discount ba	-2.1%	-0.6	-4.4	-1.6	-0.1	-6.7	+12.6	+3.2	-1.5	+1.0	+15.2	+2.1%	+6.26	+8.68
13 Minimum price 30p + total off-t discount ba	-2.2%	-0.5	-4.3	-2.1	-0.1	-6.9	+13.7	+4.2	-1.7	+1.3	+17.6	+2.5%	+7.24	+9.25
14 Minimum price 35p + total off-t discount ba	-2.5%	-0.3	-4.4	-3.2	-0.1	-8.0	+16.0	+5.8	-2.2	+1.8	+21.3	+3.0%	+8.77	+10.64
15 Minimum price 40p + total off-t discount ba	-3.2%	-0.2	-5.1	-4.8	-0.1	-10.1	+19.4	+7.7	-3.1	+2.3	+26.4	+3.7%	+10.86	+13.11
16 Minimum price 45p + total off-t discount ba	-4.1%	-0.2	-6.2	-6.8	-0.1	-13.2	+23.6	+10.0	-4.4	+3.0	+32.2	+4.5%	+13.27	+16.65
17 Minimum price 50p + total off-t discount ba	-5.4%	-0.3	-7.7	-9.2	-0.1	-17.2	+28.2	+12.5	-6.0	+3.8	+38.5	+5.4%	+15.86	+21.20
18 Minimum price 55p + total off-t discount ba	-6.9%	-0.5	-9.8	-11.7	-0.1	-22.2	+33.2	+15.2	-8.0	+4.6	+45.0	+6.3%	+18.54	+26.88
19 Minimum price 60p + total off-t discount ba	-8.8%	-0.8	-12.5	-14.6	-0.1	-28.0	+38.1	+18.3	-10.5	+5.5	+51.4	+7.2%	+21.18	+33.61
20 Minimum price 65p + total off-t discount ba	-10.8%	-1.3	-15.6	-17.6	-0.1	-34.5	+42.2	+21.8	-13.4	+6.4	+57.1	+8.0%	+23.54	+41.16
21 Minimum price 70p + total off-t discount ba	-12.9%	-1.6	-18.9	-20.6	-0.1	-41.2	+45.4	+25.5	-16.5	+7.4	+61.9	+8.7%	+25.49	+49.15

Table 3.11: Summary of estimated effects of price policies on consumption, spending and sales – moderate drinkers

SUMMARY - HAZARDOUS	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	+0.0%	-2.2	+4.3	-1.5	+0.0	+0.7	+3.7	+2.9	+0.2	+0.9	+7.7	+0.8%	+8.05	+3.16
2 Minimum price 30p	-0.1%	-4.8	+9.0	-5.0	+0.1	-0.8	+7.8	+6.0	-0.1	+1.9	+15.6	+1.5%	+16.35	+7.85
3 Minimum price 35p	-0.6%	-7.8	+12.6	-13.4	+0.1	-8.6	+14.4	+9.9	-1.4	+3.1	+26.1	+2.6%	+27.32	+17.64
4 Minimum price 40p	-1.9%	-11.5	+11.4	-26.3	+0.1	-26.2	+24.0	+15.3	-4.2	+4.7	+39.7	+3.9%	+41.68	+35.28
5 Minimum price 45p	-3.7%	-16.5	+6.2	-42.7	+0.1	-52.9	+34.7	+21.3	-8.7	+6.6	+53.9	+5.4%	+56.54	+60.01
6 Minimum price 50p	-6.2%	-22.6	-4.6	-60.5	+0.2	-87.6	+45.3	+27.8	-14.5	+8.6	+67.2	+6.7%	+70.43	+90.92
7 Minimum price 55p	-9.1%	-27.5	-22.0	-78.8	+0.2	-128.1	+55.6	+34.9	-21.5	+10.8	+79.8	+7.9%	+83.65	+128.06
8 Minimum price 60p	-12.1%	-30.3	-43.4	-97.4	+0.2	-170.9	+64.3	+42.6	-29.1	+13.0	+90.8	+9.0%	+95.20	+169.21
9 Minimum price 65p	-15.3%	-33.6	-67.5	-115.4	+0.2	-216.4	+69.6	+50.9	-37.6	+15.2	+98.2	+9.7%	+102.94	+212.97
10 Minimum price 70p	-18.6%	-37.5	-93.5	-131.7	+0.1	-262.5	+71.1	+59.3	-46.6	+17.5	+101.4	+10.1%	+106.28	+257.95
11 Total off-trade discount ban	-3.3%	-6.9	-31.4	-8.3	-0.2	-46.8	+21.8	+5.4	-5.5	+1.7	+23.4	+2.3%	+24.53	+44.24
12 Minimum price 25p + total off-t discount ba	-3.3%	-8.7	-28.2	-9.8	-0.1	-46.8	+24.8	+7.9	-5.5	+2.4	+29.7	+2.9%	+31.14	+46.97
13 Minimum price 30p + total off-t discount ba	-3.4%	-10.3	-24.9	-13.2	-0.1	-48.4	+28.2	+10.4	-5.8	+3.2	+36.0	+3.6%	+37.78	+50.73
14 Minimum price 35p + total off-t discount ba	-3.9%	-12.0	-22.1	-20.9	-0.1	-55.1	+33.4	+13.8	-7.0	+4.3	+44.5	+4.4%	+46.71	+58.71
15 Minimum price 40p + total off-t discount ba	-4.9%	-14.2	-23.3	-32.4	-0.1	-69.9	+40.8	+18.5	-9.6	+5.8	+55.5	+5.5%	+58.16	+73.16
16 Minimum price 45p + total off-t discount ba	-6.5%	-18.0	-27.3	-47.0	-0.0	-92.3	+48.8	+24.0	-13.6	+7.4	+66.6	+6.6%	+69.81	+93.59
17 Minimum price 50p + total off-t discount ba	-8.6%	-23.2	-35.1	-63.1	-0.0	-121.4	+56.2	+30.0	-18.9	+9.3	+76.6	+7.6%	+80.29	+119.35
18 Minimum price 55p + total off-t discount ba	-11.0%	-27.5	-48.3	-80.5	-0.0	-156.3	+63.2	+36.6	-25.3	+11.3	+85.9	+8.5%	+90.08	+151.28
19 Minimum price 60p + total off-t discount ba	-13.8%	-29.9	-66.1	-98.8	-0.0	-194.8	+69.3	+44.0	-32.5	+13.4	+94.2	+9.4%	+98.76	+188.52
20 Minimum price 65p + total off-t discount ba	-16.8%	-33.0	-87.6	-116.6	-0.0	-237.2	+72.5	+52.1	-40.8	+15.6	+99.4	+9.9%	+104.20	+229.45
21 Minimum price 70p + total off-t discount ba	-19.9%	-36.8	-111.6	-132.7	-0.0	-281.2	+72.2	+60.4	-49.7	+17.9	+100.8	+10.0%	+105.65	+272.32

Table 3.12: Summary of estimated effects of price policies on consumption, spending and sales – hazardous drinkers

SUMMARY - HARMFUL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.6%	-19.3	+5.8	-7.3	+0.1	-20.7	+3.9	+2.4	-0.8	+0.7	+6.2	+1.1%	+22.82	+15.75
2 Minimum price 30p	-1.5%	-43.5	+13.9	-22.1	+0.1	-51.7	+8.0	+4.5	-2.0	+1.4	+11.9	+2.0%	+43.64	+37.60
3 Minimum price 35p	-3.2%	-71.4	+20.0	-56.6	+0.0	-108.0	+14.1	+7.4	-4.5	+2.3	+19.3	+3.3%	+70.51	+77.38
4 Minimum price 40p	-5.7%	-104.0	+12.9	-103.0	+0.0	-194.1	+21.9	+11.1	-8.5	+3.5	+28.0	+4.8%	+102.29	+139.20
5 Minimum price 45p	-8.9%	-142.0	-1.7	-158.7	-0.0	-302.4	+29.6	+15.2	-13.6	+4.8	+35.9	+6.2%	+131.11	+218.32
6 Minimum price 50p	-12.6%	-183.7	-27.2	-217.2	-0.1	-428.2	+35.9	+19.6	-19.9	+6.1	+41.8	+7.2%	+152.59	+310.93
7 Minimum price 55p	-16.6%	-221.5	-63.9	-277.1	-0.3	-562.7	+40.8	+24.3	-26.8	+7.5	+45.8	+7.8%	+167.21	+414.79
8 Minimum price 60p	-20.4%	-243.1	-108.5	-338.6	-0.5	-690.6	+44.5	+29.3	-33.7	+9.0	+49.2	+8.4%	+179.54	+526.71
9 Minimum price 65p	-24.3%	-263.1	-158.6	-400.4	-0.7	-822.8	+45.6	+34.7	-41.2	+10.5	+49.6	+8.5%	+181.03	+644.58
10 Minimum price 70p	-28.0%	-284.9	-213.3	-450.4	-1.0	-949.6	+44.3	+40.2	-48.6	+12.0	+47.8	+8.2%	+174.74	+765.51
11 Total off-trade discount ban	-3.8%	-41.1	-62.6	-23.4	-0.7	-127.8	+15.8	+3.3	-4.2	+1.1	+15.9	+2.7%	+58.11	+108.09
12 Minimum price 25p + total off-t discount ba	-4.3%	-56.2	-58.9	-30.7	-0.6	-146.4	+18.8	+5.4	-5.0	+1.7	+20.9	+3.6%	+76.51	+121.57
13 Minimum price 30p + total off-t discount ba	-5.1%	-73.6	-53.4	-44.6	-0.6	-172.2	+21.9	+7.2	-6.1	+2.3	+25.3	+4.3%	+92.30	+138.88
14 Minimum price 35p + total off-t discount ba	-6.5%	-93.8	-49.1	-76.6	-0.6	-220.2	+26.6	+9.7	-8.5	+3.1	+30.9	+5.3%	+113.01	+171.55
15 Minimum price 40p + total off-t discount ba	-8.7%	-118.7	-55.5	-119.1	-0.7	-293.9	+32.4	+13.0	-12.0	+4.1	+37.5	+6.4%	+137.01	+223.00
16 Minimum price 45p + total off-t discount ba	-11.5%	-150.2	-67.3	-170.0	-0.7	-388.2	+38.0	+16.8	-16.8	+5.3	+43.3	+7.4%	+158.14	+290.30
17 Minimum price 50p + total off-t discount ba	-14.7%	-187.7	-86.9	-223.7	-0.8	-499.1	+42.3	+20.9	-22.5	+6.5	+47.2	+8.1%	+172.31	+370.31
18 Minimum price 55p + total off-t discount ba	-18.3%	-222.7	-116.2	-281.0	-0.9	-620.9	+45.3	+25.3	-29.1	+7.9	+49.4	+8.5%	+180.37	+463.16
19 Minimum price 60p + total off-t discount ba	-21.8%	-242.7	-154.3	-341.8	-1.1	-740.0	+47.6	+30.2	-35.8	+9.3	+51.2	+8.8%	+187.19	+567.11
20 Minimum price 65p + total off-t discount ba	-25.5%	-262.1	-199.5	-403.0	-1.3	-865.9	+47.4	+35.4	-43.1	+10.8	+50.4	+8.6%	+184.22	+679.20
21 Minimum price 70p + total off-t discount ba	-29.1%	-283.6	-250.4	-452.5	-1.6	-988.1	+45.1	+40.8	-50.4	+12.2	+47.7	+8.2%	+174.19	+795.77

Table 3.13: Summary of estimated effects of price policies on consumption, spending and sales – harmful drinkers

3.2.7 Summary tables for health, crime and employment harms by population sub-group

SUMMARY - MODERATE	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	+0	-0.0	+0.0	+0.0	+0.0	+0	-0.0	+0.0	-0.0	+0.0	+0.0	+0.1	+0.0	+0.2	+0.0	+0.3	+0.0
2 Minimum price 30p	-1	-0.0	-0.0	-0.0	-0.0	-1	-0.0	-0.0	-0.0	-0.1	+0.1	+0.1	+0.1	+0.3	+0.0	+0.4	+0.0
3 Minimum price 35p	-3	-0.0	-0.1	-0.1	-0.0	-4	-0.1	-0.1	-0.2	-0.5	+0.1	+0.1	+0.1	+0.3	+0.0	-0.3	+0.0
4 Minimum price 40p	-7	-0.0	-0.2	-0.2	-0.0	-9	-0.1	-0.2	-0.4	-1.1	+0.1	+0.1	+0.0	+0.2	+0.0	-2.2	+0.0
5 Minimum price 45p	-14	-0.0	-0.3	-0.4	-0.1	-16	-0.2	-0.3	-0.7	-2.0	-0.0	+0.0	-0.0	-0.0	-0.0	-5.2	+0.0
6 Minimum price 50p	-21	-0.0	-0.5	-0.6	-0.1	-24	-0.3	-0.5	-1.1	-3.1	-0.1	-0.1	-0.2	-0.4	-0.0	-9.2	+0.0
7 Minimum price 55p	-30	-0.0	-0.6	-0.8	-0.2	-33	-0.5	-0.7	-1.6	-4.4	-0.2	-0.3	-0.3	-0.8	-0.0	-14.4	+0.0
8 Minimum price 60p	-39	-0.1	-0.9	-1.1	-0.3	-43	-0.6	-0.9	-2.1	-5.7	-0.4	-0.5	-0.5	-1.4	-0.0	-20.3	+0.0
9 Minimum price 65p	-48	-0.1	-1.1	-1.4	-0.3	-53	-0.7	-1.1	-2.6	-7.1	-0.6	-0.8	-0.7	-2.0	-0.0	-26.8	+0.0
10 Minimum price 70p	-57	-0.1	-1.3	-1.6	-0.4	-62	-0.9	-1.4	-3.1	-8.4	-0.8	-1.0	-0.9	-2.7	-0.0	-33.3	+0.0
11 Total off-trade discount ban	-9	-0.0	-0.2	-0.3	-0.1	-11	-0.1	-0.2	-0.5	-1.4	-0.2	-0.3	-0.2	-0.7	-0.0	-6.9	+0.0
12 Minimum price 25p + total off-t discount ba	-9	-0.0	-0.2	-0.3	-0.1	-11	-0.1	-0.2	-0.5	-1.4	-0.2	-0.2	-0.2	-0.6	-0.0	-6.7	+0.0
13 Minimum price 30p + total off-t discount ba	-10	-0.0	-0.2	-0.3	-0.1	-12	-0.1	-0.2	-0.5	-1.5	-0.1	-0.2	-0.2	-0.5	-0.0	-6.6	+0.0
14 Minimum price 35p + total off-t discount ba	-12	-0.0	-0.3	-0.3	-0.1	-14	-0.2	-0.3	-0.6	-1.8	-0.1	-0.1	-0.2	-0.4	-0.0	-7.2	+0.0
15 Minimum price 40p + total off-t discount ba	-15	-0.0	-0.3	-0.4	-0.1	-18	-0.2	-0.4	-0.8	-2.3	-0.1	-0.2	-0.2	-0.5	-0.0	-8.7	+0.0
16 Minimum price 45p + total off-t discount ba	-21	-0.0	-0.5	-0.6	-0.1	-24	-0.3	-0.5	-1.1	-3.1	-0.2	-0.2	-0.2	-0.6	-0.0	-11.0	+0.0
17 Minimum price 50p + total off-t discount ba	-27	-0.0	-0.6	-0.7	-0.2	-30	-0.4	-0.6	-1.4	-4.0	-0.2	-0.3	-0.3	-0.9	-0.0	-14.3	+0.0
18 Minimum price 55p + total off-t discount ba	-34	-0.1	-0.8	-1.0	-0.2	-38	-0.5	-0.8	-1.9	-5.1	-0.4	-0.5	-0.4	-1.3	-0.0	-18.6	+0.0
19 Minimum price 60p + total off-t discount ba	-42	-0.1	-1.0	-1.2	-0.3	-47	-0.7	-1.0	-2.3	-6.3	-0.5	-0.7	-0.6	-1.7	-0.0	-23.9	+0.0
20 Minimum price 65p + total off-t discount ba	-51	-0.1	-1.2	-1.5	-0.4	-57	-0.8	-1.2	-2.8	-7.6	-0.7	-0.9	-0.8	-2.3	-0.0	-29.9	+0.0
21 Minimum price 70p + total off-t discount ba	-60	-0.1	-1.4	-1.7	-0.4	-65	-0.9	-1.4	-3.3	-8.9	-0.8	-1.1	-1.0	-3.0	-0.0	-36.1	+0.0

Table 3.14: Summary of estimated effects of price policies on health, crime and employment alcohol related harms – moderate drinkers

SUMMARY - HAZARDOUS	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	+1	+0.0	+0.0	+0.0	+0.0	+2	+0.0	+0.0	+0.0	+0.1	+0.0	+0.0	+0.0	+0.1	+0.0	+0.1	+0.0
2 Minimum price 30p	+0	-0.0	+0.0	+0.0	+0.0	-2	-0.0	+0.0	-0.0	-0.0	+0.0	+0.0	-0.0	+0.0	+0.0	-0.1	+0.0
3 Minimum price 35p	-4	-0.0	-0.1	-0.1	-0.0	-21	-0.1	-0.1	-0.3	-0.6	-0.0	-0.1	-0.1	-0.2	-0.0	-1.3	+0.0
4 Minimum price 40p	-12	-0.0	-0.2	-0.2	-0.1	-64	-0.4	-0.2	-1.0	-1.7	-0.1	-0.2	-0.2	-0.6	-0.0	-4.0	+0.0
5 Minimum price 45p	-23	-0.1	-0.3	-0.5	-0.1	-125	-0.8	-0.4	-1.9	-3.3	-0.3	-0.5	-0.4	-1.2	-0.0	-8.1	+0.0
6 Minimum price 50p	-37	-0.1	-0.5	-0.8	-0.2	-199	-1.3	-0.6	-3.1	-5.2	-0.6	-0.9	-0.7	-2.1	-0.0	-13.7	+0.0
7 Minimum price 55p	-52	-0.2	-0.7	-1.1	-0.3	-280	-1.8	-0.9	-4.4	-7.4	-0.8	-1.3	-1.0	-3.1	-0.0	-20.1	+0.0
8 Minimum price 60p	-68	-0.2	-0.9	-1.5	-0.3	-364	-2.4	-1.1	-5.8	-9.7	-1.1	-1.7	-1.3	-4.0	-0.0	-26.9	+0.0
9 Minimum price 65p	-85	-0.3	-1.2	-1.9	-0.4	-448	-3.0	-1.4	-7.2	-12.1	-1.3	-2.1	-1.6	-5.0	-0.0	-34.1	+0.0
10 Minimum price 70p	-101	-0.3	-1.5	-2.3	-0.5	-530	-3.6	-1.7	-8.7	-14.5	-1.6	-2.5	-1.9	-6.1	-0.0	-41.6	+0.0
11 Total off-trade discount ban	-17	-0.1	-0.2	-0.4	-0.1	-92	-0.6	-0.3	-1.4	-2.4	-0.3	-0.5	-0.4	-1.2	-0.0	-8.2	+0.0
12 Minimum price 25p + total off-t discount ba	-16	-0.1	-0.2	-0.4	-0.1	-91	-0.6	-0.3	-1.4	-2.4	-0.3	-0.5	-0.4	-1.2	-0.0	-8.2	+0.0
13 Minimum price 30p + total off-t discount ba	-17	-0.1	-0.2	-0.4	-0.1	-95	-0.6	-0.3	-1.4	-2.5	-0.3	-0.5	-0.4	-1.2	-0.0	-8.4	+0.0
14 Minimum price 35p + total off-t discount ba	-20	-0.1	-0.3	-0.4	-0.1	-111	-0.7	-0.3	-1.7	-2.9	-0.3	-0.5	-0.4	-1.3	-0.0	-9.5	+0.0
15 Minimum price 40p + total off-t discount ba	-27	-0.1	-0.4	-0.6	-0.1	-147	-0.9	-0.4	-2.3	-3.9	-0.4	-0.7	-0.5	-1.6	-0.0	-11.7	+0.0
16 Minimum price 45p + total off-t discount ba	-36	-0.1	-0.5	-0.8	-0.2	-196	-1.3	-0.6	-3.0	-5.2	-0.6	-0.9	-0.7	-2.1	-0.0	-15.1	+0.0
17 Minimum price 50p + total off-t discount ba	-48	-0.2	-0.7	-1.0	-0.2	-257	-1.7	-0.8	-4.0	-6.8	-0.8	-1.2	-0.9	-2.9	-0.0	-19.7	+0.0
18 Minimum price 55p + total off-t discount ba	-61	-0.2	-0.8	-1.3	-0.3	-326	-2.2	-1.0	-5.2	-8.7	-1.0	-1.5	-1.2	-3.7	-0.0	-25.2	+0.0
19 Minimum price 60p + total off-t discount ba	-75	-0.2	-1.1	-1.7	-0.4	-401	-2.7	-1.2	-6.4	-10.8	-1.2	-1.9	-1.4	-4.5	-0.0	-31.2	+0.0
20 Minimum price 65p + total off-t discount ba	-91	-0.3	-1.3	-2.0	-0.5	-479	-3.3	-1.5	-7.8	-13.0	-1.4	-2.3	-1.7	-5.4	-0.0	-38.0	+0.0
21 Minimum price 70p + total off-t discount ba	-106	-0.4	-1.5	-2.4	-0.5	-556	-3.8	-1.8	-9.2	-15.3	-1.7	-2.7	-2.0	-6.5	-0.0	-45.0	+0.0

Table 3.15: Summary of estimated effects of price policies on health, crime and employment alcohol related harms – hazardous drinkers

SUMMARY - HARMFUL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-2	-0.0	-0.0	-0.0	-0.0	-16	-0.1	-0.0	-0.3	-0.3	-0.0	-0.0	-0.0	-0.0	-0.0	-0.6	-0.1
2 Minimum price 30p	-5	-0.0	-0.0	-0.1	-0.0	-38	-0.3	-0.0	-0.6	-0.8	-0.0	-0.1	-0.1	-0.2	-0.0	-1.5	-0.2
3 Minimum price 35p	-11	-0.1	-0.1	-0.2	-0.0	-79	-0.6	-0.1	-1.3	-1.7	-0.1	-0.2	-0.1	-0.4	-0.0	-3.0	-0.4
4 Minimum price 40p	-20	-0.1	-0.2	-0.4	-0.1	-141	-1.0	-0.2	-2.2	-3.0	-0.2	-0.3	-0.2	-0.8	-0.0	-5.4	-0.8
5 Minimum price 45p	-31	-0.2	-0.3	-0.6	-0.1	-214	-1.5	-0.3	-3.4	-4.5	-0.3	-0.5	-0.4	-1.2	-0.0	-8.3	-1.2
6 Minimum price 50p	-43	-0.2	-0.4	-0.9	-0.2	-297	-2.1	-0.4	-4.7	-6.3	-0.4	-0.7	-0.5	-1.7	-0.0	-11.7	-1.7
7 Minimum price 55p	-56	-0.3	-0.5	-1.1	-0.2	-382	-2.7	-0.5	-6.0	-8.1	-0.6	-1.0	-0.7	-2.2	-0.0	-15.4	-2.2
8 Minimum price 60p	-67	-0.3	-0.6	-1.3	-0.3	-460	-3.2	-0.6	-7.2	-9.8	-0.7	-1.2	-0.8	-2.8	-0.0	-18.8	-2.6
9 Minimum price 65p	-79	-0.4	-0.7	-1.6	-0.3	-538	-3.8	-0.7	-8.4	-11.5	-0.8	-1.4	-1.0	-3.2	-0.0	-22.4	-3.0
10 Minimum price 70p	-90	-0.4	-0.8	-1.8	-0.3	-612	-4.3	-0.9	-9.5	-13.1	-1.0	-1.6	-1.1	-3.6	-0.0	-25.8	-3.3
11 Total off-trade discount ban	-11	-0.1	-0.1	-0.2	-0.0	-80	-0.6	-0.1	-1.3	-1.7	-0.1	-0.2	-0.2	-0.5	-0.0	-3.7	-0.6
12 Minimum price 25p + total off-t discount ba	-13	-0.1	-0.1	-0.3	-0.1	-94	-0.7	-0.1	-1.5	-2.0	-0.1	-0.2	-0.2	-0.5	-0.0	-4.3	-0.7
13 Minimum price 30p + total off-t discount ba	-16	-0.1	-0.1	-0.3	-0.1	-113	-0.8	-0.1	-1.8	-2.4	-0.2	-0.3	-0.2	-0.6	-0.0	-5.0	-0.8
14 Minimum price 35p + total off-t discount ba	-21	-0.1	-0.2	-0.4	-0.1	-149	-1.1	-0.2	-2.4	-3.2	-0.2	-0.3	-0.3	-0.8	-0.0	-6.3	-1.0
15 Minimum price 40p + total off-t discount ba	-29	-0.1	-0.3	-0.6	-0.1	-201	-1.4	-0.3	-3.2	-4.3	-0.3	-0.5	-0.4	-1.1	-0.0	-8.2	-1.2
16 Minimum price 45p + total off-t discount ba	-38	-0.2	-0.3	-0.8	-0.1	-264	-1.9	-0.3	-4.2	-5.6	-0.4	-0.6	-0.5	-1.5	-0.0	-10.8	-1.6
17 Minimum price 50p + total off-t discount ba	-49	-0.2	-0.4	-1.0	-0.2	-337	-2.4	-0.4	-5.3	-7.1	-0.5	-0.8	-0.6	-1.9	-0.0	-13.8	-2.0
18 Minimum price 55p + total off-t discount ba	-60	-0.3	-0.5	-1.2	-0.2	-413	-2.9	-0.5	-6.5	-8.8	-0.6	-1.0	-0.7	-2.4	-0.0	-17.1	-2.4
19 Minimum price 60p + total off-t discount ba	-71	-0.3	-0.6	-1.4	-0.3	-486	-3.4	-0.7	-7.6	-10.3	-0.8	-1.2	-0.9	-2.9	-0.0	-20.3	-2.8
20 Minimum price 65p + total off-t discount ba	-82	-0.4	-0.8	-1.6	-0.3	-560	-3.9	-0.8	-8.7	-12.0	-0.9	-1.4	-1.0	-3.3	-0.0	-23.6	-3.1
21 Minimum price 70p + total off-t discount ba	-93	-0.4	-0.9	-1.8	-0.4	-631	-4.4	-0.9	-9.8	-13.5	-1.0	-1.6	-1.1	-3.7	-0.0	-26.9	-3.3

Table 3.16: of estimated effects of price policies on health, crime and employment alcohol related harms – harmful drinkers

3.2.8 Summary tables for financial value of harm reductions by population sub-group

SUMMARY - MODERATE	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.1	+.0	+.0	+.2	+.2	+.1	+.5	+	+1	+	+	+2	+1	+1	+3
2 Minimum price 30p	-0.1	+.2	+.0	+.0	+.2	-.0	+.2	+.3	-1	+2	+	+	+1	-6	+1	-3
3 Minimum price 35p	-0.3	+.3	-.0	+.0	-.1	-.8	+.2	-.7	-5	+2	-	+	-3	-23	+2	-24
4 Minimum price 40p	-0.9	+.2	-.2	+.0	-.9	-2.2	+.1	-3.0	-11	+1	-2	+	-11	-56	+1	-66
5 Minimum price 45p	-1.7	-.0	-.5	+.0	-2.3	-4.3	-.1	-6.6	-21	-	-4	+	-25	-102	-1	-127
6 Minimum price 50p	-2.7	-.3	-.8	+.0	-3.9	-6.8	-.3	-11.0	-32	-3	-7	+	-42	-156	-3	-201
7 Minimum price 55p	-3.9	-.7	-1.3	+.0	-5.9	-9.8	-.6	-16.3	-46	-6	-11	+	-62	-219	-5	-287
8 Minimum price 60p	-5.1	-1.2	-1.9	+.0	-8.2	-13.1	-.9	-22.2	-60	-10	-15	+	-85	-285	-9	-379
9 Minimum price 65p	-6.5	-1.8	-2.5	+.0	-10.7	-16.5	-1.3	-28.6	-75	-15	-20	+	-110	-355	-12	-477
10 Minimum price 70p	-7.8	-2.3	-3.1	+.0	-13.2	-20.0	-1.8	-34.9	-90	-19	-26	+	-135	-422	-16	-573
11 Total off-trade discount ban	-1.2	-.6	-.6	+.0	-2.5	-3.3	-.4	-6.2	-14	-5	-5	+	-24	-68	-4	-96
12 Minimum price 25p + total off-t discount ba	-1.3	-.5	-.6	+.0	-2.4	-3.3	-.4	-6.1	-14	-4	-5	+	-24	-70	-3	-97
13 Minimum price 30p + total off-t discount ba	-1.3	-.4	-.6	+.0	-2.4	-3.5	-.3	-6.2	-15	-3	-5	+	-24	-75	-3	-101
14 Minimum price 35p + total off-t discount ba	-1.6	-.4	-.7	+.0	-2.6	-4.1	-.3	-7.0	-18	-3	-6	+	-27	-90	-3	-119
15 Minimum price 40p + total off-t discount ba	-2.1	-.4	-.8	+.0	-3.3	-5.3	-.3	-8.9	-24	-3	-7	+	-34	-117	-3	-154
16 Minimum price 45p + total off-t discount ba	-2.7	-.5	-1.0	+.0	-4.3	-7.0	-.4	-11.7	-32	-5	-8	+	-45	-154	-4	-203
17 Minimum price 50p + total off-t discount ba	-3.5	-.8	-1.3	+.0	-5.6	-9.1	-.6	-15.3	-41	-6	-11	+	-59	-200	-5	-264
18 Minimum price 55p + total off-t discount ba	-4.6	-1.1	-1.7	+.0	-7.3	-11.6	-.8	-19.8	-53	-9	-14	+	-76	-255	-8	-338
19 Minimum price 60p + total off-t discount ba	-5.7	-1.5	-2.2	+.0	-9.4	-14.6	-1.1	-25.1	-66	-13	-18	+	-97	-315	-11	-422
20 Minimum price 65p + total off-t discount ba	-7.0	-2.0	-2.8	+.0	-11.8	-18.0	-1.5	-31.3	-81	-17	-23	+	-120	-381	-14	-516
21 Minimum price 70p + total off-t discount ba	-8.2	-2.5	-3.3	+.0	-14.1	-21.1	-1.9	-37.1	-95	-21	-28	+	-143	-444	-18	-605

Table 3.17: Summary of estimated financial value of harm reductions – moderate drinkers

SUMMARY - HAZARDOUS	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.0	+.0	+.0	+.2	+.4	+.0	+.6	+1	+	+	+	+2	+6	+	+8
2 Minimum price 30p	+0.1	+.0	-.0	+.0	+.1	+.2	+.0	+.3	+	+	-	+	+	-	+	+
3 Minimum price 35p	-0.4	-.1	-.1	+.0	-.6	-.9	-.1	-1.6	-6	-1	-1	+	-8	-28	-1	-38
4 Minimum price 40p	-1.1	-.5	-.4	+.0	-1.9	-2.7	-.3	-4.9	-19	-4	-3	+	-26	-84	-3	-113
5 Minimum price 45p	-2.2	-1.0	-.7	+.0	-3.9	-5.4	-.7	-10.0	-37	-9	-6	+	-52	-164	-7	-222
6 Minimum price 50p	-3.5	-1.8	-1.2	+.0	-6.5	-8.8	-1.2	-16.5	-60	-15	-10	+	-85	-262	-11	-358
7 Minimum price 55p	-5.0	-2.6	-1.8	+.0	-9.4	-12.7	-1.8	-23.9	-85	-22	-15	+	-122	-372	-16	-510
8 Minimum price 60p	-6.6	-3.4	-2.4	+.0	-12.4	-16.8	-2.3	-31.6	-112	-28	-20	+	-161	-486	-21	-668
9 Minimum price 65p	-8.3	-4.2	-3.1	+.0	-15.6	-21.0	-2.9	-39.5	-140	-35	-26	+	-201	-603	-27	-831
10 Minimum price 70p	-10.1	-5.1	-3.8	+.0	-19.0	-25.8	-3.5	-48.4	-170	-43	-31	+	-244	-724	-33	-1,001
11 Total off-trade discount ban	-1.6	-1.0	-.8	+.0	-3.4	-4.2	-.7	-8.4	-27	-8	-6	+	-42	-121	-7	-169
12 Minimum price 25p + total off-t discount ba	-1.6	-1.0	-.8	+.0	-3.4	-4.2	-.7	-8.3	-27	-8	-6	+	-41	-120	-6	-168
13 Minimum price 30p + total off-t discount ba	-1.7	-1.0	-.8	+.0	-3.5	-4.4	-.7	-8.6	-28	-8	-7	+	-43	-125	-6	-175
14 Minimum price 35p + total off-t discount ba	-2.0	-1.1	-.9	+.0	-3.9	-5.1	-.8	-9.8	-33	-9	-7	+	-49	-147	-7	-204
15 Minimum price 40p + total off-t discount ba	-2.6	-1.4	-1.1	+.0	-5.0	-6.6	-.9	-12.6	-43	-11	-9	+	-64	-194	-9	-266
16 Minimum price 45p + total off-t discount ba	-3.5	-1.8	-1.4	+.0	-6.7	-8.9	-1.2	-16.8	-59	-15	-11	+	-85	-260	-12	-356
17 Minimum price 50p + total off-t discount ba	-4.6	-2.4	-1.8	+.0	-8.8	-11.7	-1.7	-22.2	-78	-20	-15	+	-113	-341	-15	-469
18 Minimum price 55p + total off-t discount ba	-5.9	-3.1	-2.3	+.0	-11.3	-15.1	-2.1	-28.6	-100	-26	-19	+	-145	-436	-20	-600
19 Minimum price 60p + total off-t discount ba	-7.4	-3.8	-2.8	+.0	-14.0	-18.8	-2.6	-35.5	-124	-32	-24	+	-180	-539	-24	-743
20 Minimum price 65p + total off-t discount ba	-9.1	-4.6	-3.5	+.0	-17.1	-23.2	-3.2	-43.5	-152	-38	-29	+	-219	-652	-29	-900
21 Minimum price 70p + total off-t discount ba	-10.7	-5.5	-4.1	+.0	-20.3	-27.4	-3.8	-51.4	-179	-45	-34	+	-258	-763	-35	-1,056

Table 3.18: Summary of estimated financial value of harm reductions – hazardous drinkers

SUMMARY - HARMFUL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	-0.2	-.0	-.1	-2.1	-2.4	-.4	-.0	-2.8	-4	-	-1	-18	-22	-16	-	-39
2 Minimum price 30p	-0.4	-.1	-.1	-5.4	-6.1	-1.0	-.1	-7.2	-9	-1	-1	-45	-56	-40	-1	-97
3 Minimum price 35p	-0.9	-.4	-.3	-11.0	-12.5	-2.1	-.3	-14.9	-19	-3	-2	-92	-116	-83	-2	-202
4 Minimum price 40p	-1.5	-.7	-.5	-19.4	-22.1	-3.7	-.5	-26.3	-34	-6	-4	-161	-205	-148	-4	-357
5 Minimum price 45p	-2.3	-1.0	-.8	-29.6	-33.8	-5.8	-.7	-40.3	-51	-9	-7	-246	-313	-225	-7	-545
6 Minimum price 50p	-3.3	-1.5	-1.1	-40.9	-46.8	-8.1	-1.0	-55.9	-71	-12	-9	-340	-433	-313	-10	-756
7 Minimum price 55p	-4.3	-1.9	-1.5	-52.2	-59.8	-10.5	-1.4	-71.7	-91	-16	-12	-434	-554	-404	-13	-970
8 Minimum price 60p	-5.2	-2.4	-1.8	-61.4	-70.8	-12.8	-1.7	-85.3	-110	-20	-15	-511	-656	-488	-16	-1,160
9 Minimum price 65p	-6.1	-2.8	-2.2	-69.8	-80.9	-15.2	-2.0	-98.0	-130	-23	-18	-581	-751	-574	-18	-1,343
10 Minimum price 70p	-7.0	-3.1	-2.5	-76.8	-89.4	-17.4	-2.2	-109.0	-148	-26	-21	-638	-833	-655	-20	-1,508
11 Total off-trade discount ban	-0.9	-.4	-.4	-14.1	-15.8	-2.3	-.3	-18.4	-20	-4	-3	-117	-143	-87	-3	-233
12 Minimum price 25p + total off-t discount ba	-1.1	-.5	-.4	-15.8	-17.8	-2.6	-.3	-20.7	-23	-4	-3	-132	-162	-102	-3	-267
13 Minimum price 30p + total off-t discount ba	-1.3	-.5	-.5	-18.3	-20.6	-3.1	-.4	-24.1	-27	-5	-4	-152	-188	-121	-4	-313
14 Minimum price 35p + total off-t discount ba	-1.6	-.7	-.6	-22.7	-25.7	-4.1	-.5	-30.3	-36	-6	-5	-189	-236	-159	-5	-399
15 Minimum price 40p + total off-t discount ba	-2.2	-1.0	-.8	-29.4	-33.4	-5.5	-.7	-39.6	-48	-8	-7	-245	-308	-213	-6	-527
16 Minimum price 45p + total off-t discount ba	-2.9	-1.3	-1.0	-37.9	-43.1	-7.2	-.9	-51.3	-63	-11	-9	-315	-398	-280	-8	-686
17 Minimum price 50p + total off-t discount ba	-3.7	-1.6	-1.3	-47.3	-54.1	-9.3	-1.2	-64.5	-81	-14	-11	-394	-499	-357	-11	-867
18 Minimum price 55p + total off-t discount ba	-4.6	-2.1	-1.7	-56.7	-65.1	-11.5	-1.5	-78.1	-99	-17	-14	-472	-602	-439	-14	-1,055
19 Minimum price 60p + total off-t discount ba	-5.5	-2.5	-2.0	-64.9	-74.8	-13.6	-1.8	-90.2	-117	-21	-16	-539	-693	-517	-16	-1,227
20 Minimum price 65p + total off-t discount ba	-6.4	-2.9	-2.3	-72.4	-84.0	-15.9	-2.0	-101.9	-135	-24	-19	-602	-780	-599	-19	-1,398
21 Minimum price 70p + total off-t discount ba	-7.2	-3.2	-2.6	-78.7	-91.8	-18.0	-2.3	-112.1	-153	-27	-22	-655	-856	-676	-21	-1,553

Table 3.19: Summary of estimated financial value of harm reductions – harmful drinkers

3.3 SENSITIVITY ANALYSES

This section shows the results of sensitivity analyses around the baseline model findings. The analyses include (i) probabilistic sensitivity analysis (PSA) around the price elasticities of demand estimated by the econometric modelling; (ii) use of alternative assumptions around the differential responsiveness of moderate and heavier drinkers; (iii) use of alternative evidence for drinkers' preferences for off-trade versus on-trade consumption; (iv) use of alternative evidence around the risk functions for coronary heart disease; (v) alternative measures of attribution of crimes to alcohol consumption. Detailed results tables for the sensitivity analyses are provided in Appendix 14 to 18.

3.3.1 Probabilistic sensitivity analysis

For illustrative purposes, PSA results have been generated around three policy scenarios: a 40p minimum price in isolation, an off-trade discount ban in isolation, and the combination of a 40p minimum price with an off-trade discount ban. Each analysis is based on 100 alternative versions of the 16x16 moderate elasticity matrix and 16x16 hazardous/harmful matrix, based on samples from the underlying variance-covariance matrices derived for the population of England. The remainder of the model is based on the Scottish adaptation of the price-to-consumption model described in Section 2.3.2. Estimated 95% confidence intervals for the change in mean consumption resulting from the three policies are shown in Table 3.20.

Policy	Drinker type	Lower 95% CI	Upper 95% CI
40p minimum price	All	-2.6%	-2.9%
	Moderate	-1.0%	-1.5%
	Hazardous	-1.6%	-2.1%
	Harmful	-5.5%	-5.9%
Off-trade discount ban	All	-3.0%	-3.1%
	Moderate	-2.0%	-2.2%
	Hazardous	-3.3%	-3.3%
	Harmful	-3.7%	-3.8%
40p minimum price + off-trade discount ban	All	-5.2%	-5.6%
	Moderate	-2.9%	-3.5%
	Hazardous	-4.7%	-5.2%
	Harmful	-8.4%	-8.9%

Table 3.20: PSA confidence interval estimates

Scatter plots of the relationship between moderate drinkers and either hazardous or harmful drinkers are shown in Figure 3.6. Each point shown is an individual PSA result comparing the change in moderate drinker consumption with the change in either hazardous or harmful drinker consumption (diamonds for a 40p minimum price and circles for an off-trade discount ban). A line of equal effect is also plotted for each figure: estimates below and to the right of the line indicate that the comparator group to moderate drinkers is affected more in relative terms by the policy. As is apparent from the plots, both hazardous and harmful drinkers are estimated with a high degree of confidence to be more responsive to both a 40p minimum price and an off-trade discount ban than moderate drinkers.

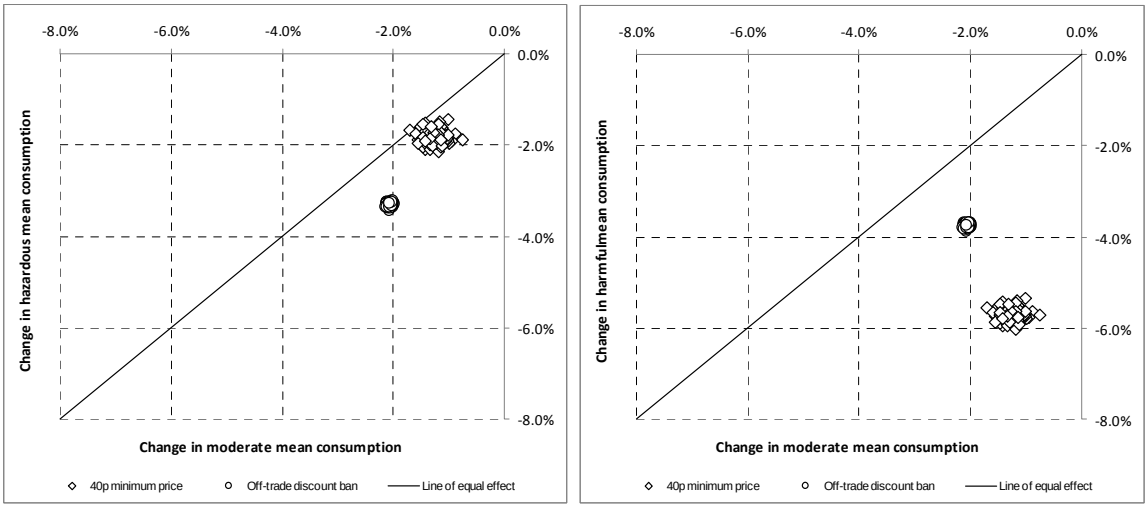


Figure 3.6: Scatter plot of PSA results, showing relative change in consumption by (a) moderate drinkers versus hazardous drinkers; (b) moderate drinkers versus harmful drinkers

3.3.2 Moderate versus heavy drinkers

In the scenarios where hazardous and harmful drinkers are assumed to be one third less responsive to price changes than moderate drinkers, effectiveness in terms of overall harm reduction is reduced. For example, for a 40p minimum price, the reduction in hospital admissions at full effect is estimated at 2,500 per annum (compared to 3,600 in the basecase) and the overall financial value of harm reduction is £520m (compared to £750m in the basecase).

A plot of change in mean consumption for moderate drinkers versus harmful drinkers for minimum price policies (both with and without a simultaneous off-trade discount ban), with thresholds increasing from 25p to 70p is shown in Figure 3.7. A line of equal effect is also plotted: if a policy estimate lies on this line then it has equal effect (in relative terms) on both moderate and harmful consumption. Estimates above and to the left of this line indicate that the policy affects moderate drinkers more than harmful drinkers; estimates below and to the

right of the line indicate the opposite effect. As can be seen for both minimum price policies in isolation and combined with an off-trade discount ban, estimates of consumption impacts lie below the line. Therefore even if it is considered somehow appropriate to adjust the elasticities for harmful drinkers such that harmful drinkers become one third less responsive overall to price changes than moderate drinkers, the model results still show harmful drinkers as more responsive to minimum price policies. This effect arises because harmful drinkers are estimated from the EFS data to purchase more of the types of alcohol that is impacted by minimum price policies.

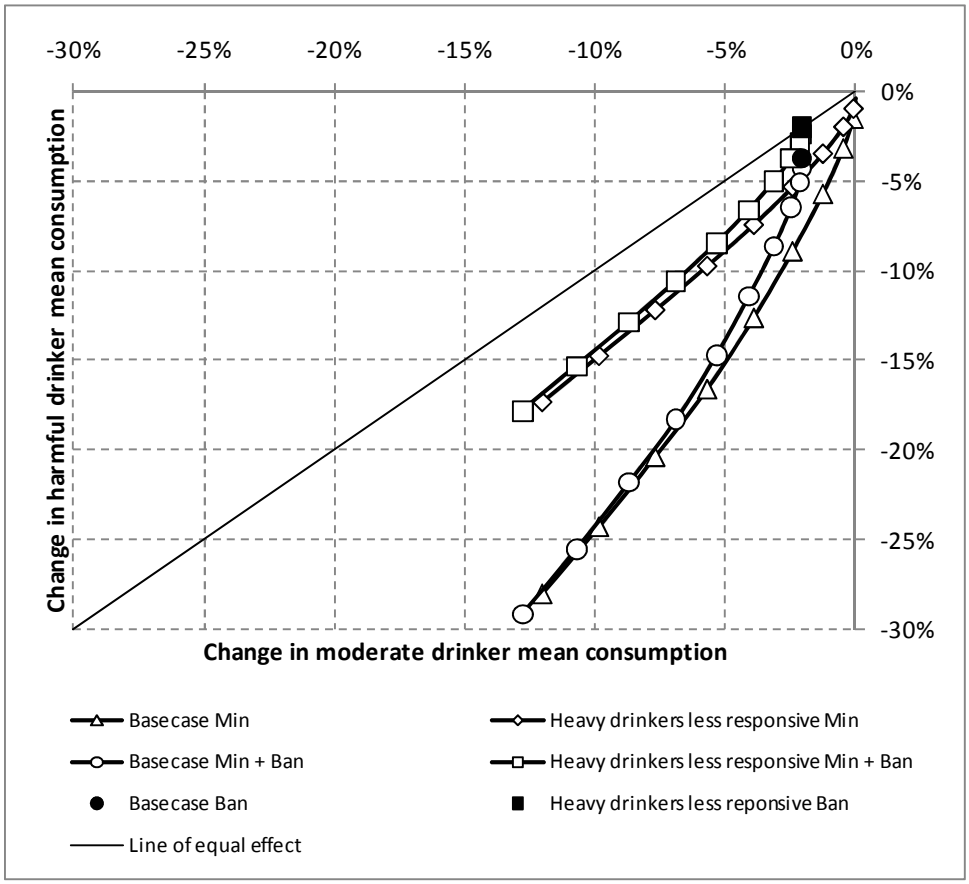


Figure 3.7: Moderate versus heavy drinker effectiveness estimates for minimum price policies (inclusive and exclusive of an off-trade discount ban)

3.3.3 Preferences for off-trade versus on-trade consumption

The Scottish Nielsen data suggests that average preferences for off-trade beverages (ie. the proportion of consumption that occurs in the off-trade) are lower than those suggested by the Scottish EFS data. This is likely to reduce the effectiveness of minimum price and off-trade discount ban policies since the bulk of their impact is in the off-trade. In general, for most policies considered, the use of Scottish Nielsen data reduces baseline effectiveness by approximately 16% (in terms of reduction in mean consumption) and 12% (in terms of overall valuation of harm reductions). Results for three example policies are shown in Figure 3.8.

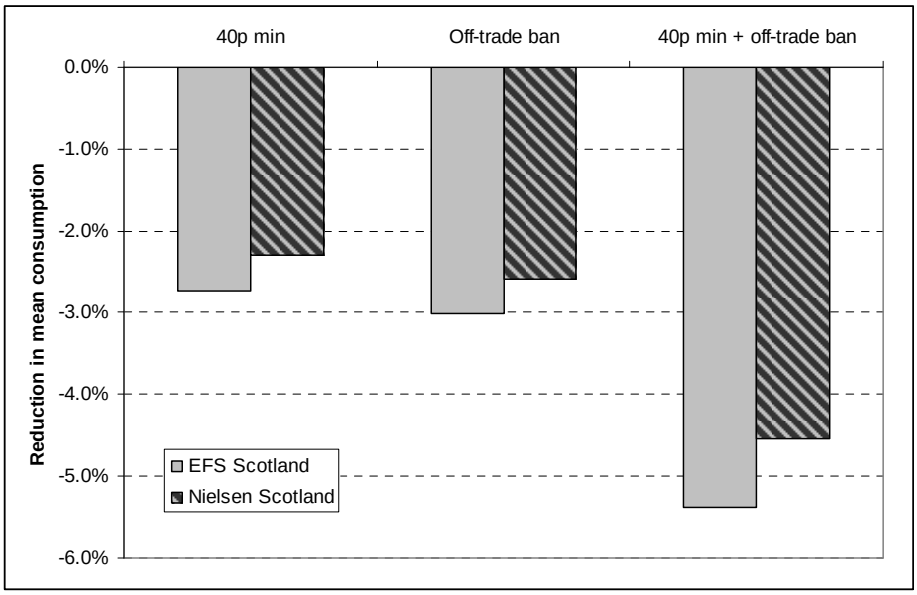


Figure 3.8: Impact of alternative assumptions for off-trade versus on-trade preferences

3.3.4 Protective effects of alcohol for coronary heart disease

As shown in Figure 3.9, the alternative risk functions for CHD (which assume a more protective effect of relatively moderate levels of alcohol consumption) have a small impact on net chronic illness savings from minimum price policies, in terms of both the overall population of Scotland and moderate Scottish drinkers. For example, for a 40p minimum price policy, the overall reduction in chronic illnesses at full effect is 1,400 (compared to 1,500 in the basecase); for moderate drinkers the figures are 110 and 120 respectively. The difference in effect becomes larger at higher minimum prices (where the impact on consumption, and therefore impact on risk levels, is greater).

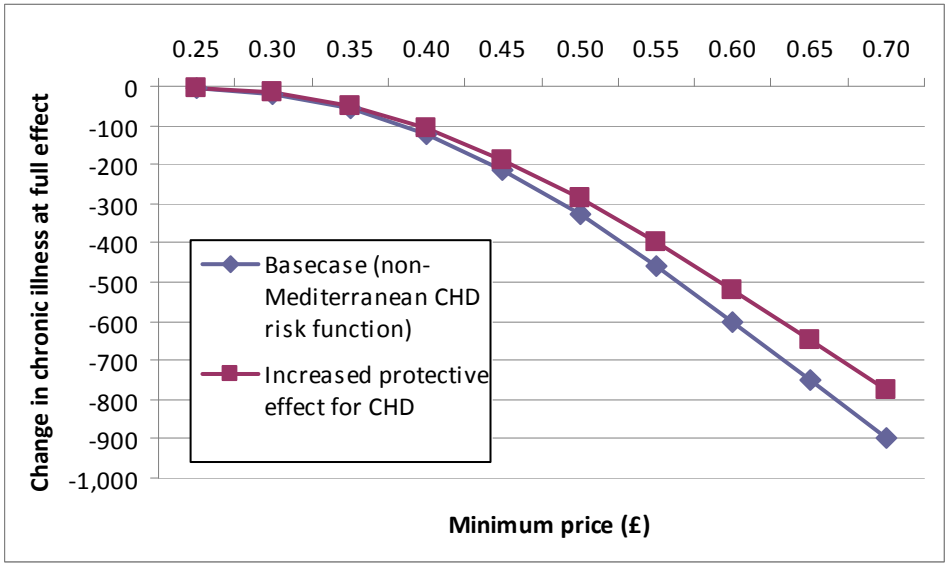


Figure 3.9: Change in prevalence of chronic illness in moderate drinkers for minimum price policies (using alternative risk functions for coronary heart disease)

3.3.5 Alternative crime AFs

The alternative assumptions around crime attribution can make quite a substantial difference to the results. This is expected given the uncertainty in the evidence base around the link between alcohol and crime. For example, for a 40p minimum price, if it is assumed that crime is attributable to alcohol if it is reported as one of the reasons for committing a crime then the annual reduction in offences is estimated at 1,100. If it is assumed that the crime is only attributable if alcohol is the only reported reason for a crime (no co-factors) then the estimated reduction drops to 500. Setting aside the issues around the accuracy and representativeness of a self-reported survey, such an estimate might represent a worst-case estimate of crime harm reduction. If it is assumed that crime is attributable to alcohol if the offender is (self-reported) intoxicated at the time of committing the crime then the annual reduction in offences is estimated at 2,400. This is likely to represent a best-case estimate of crime harm reduction, although it should be noted that such an approach has previously been taken by the UK Government when calculating the cost of alcohol misuse to the economy (Cabinet Office, 2003; Department of Health, 2008).

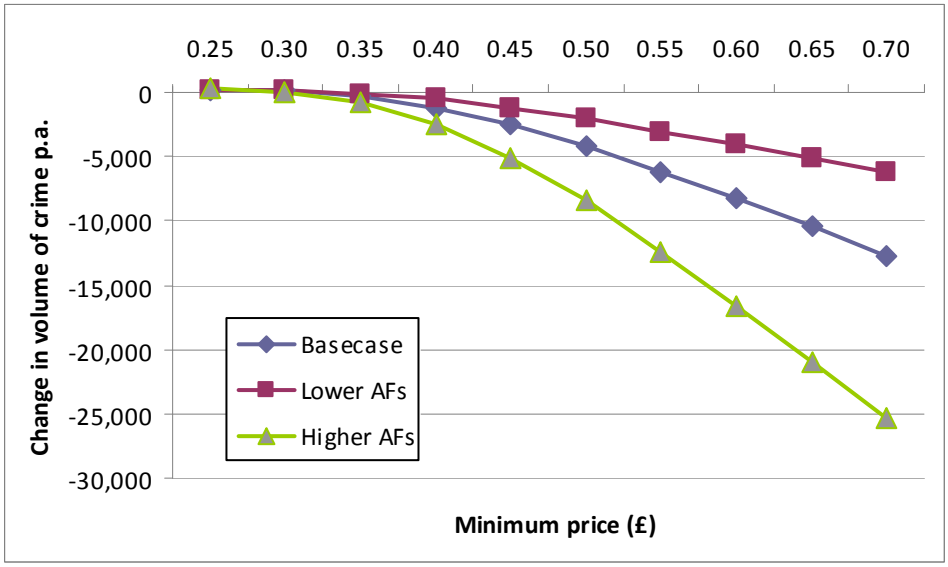


Figure 3.10: Change in overall volume of crimes per annum for minimum price policies, using alternative assumptions for the attribution of crimes to alcohol consumption

4 SUMMARY OF RESULTS AND DISCUSSION

This section summarises the key model findings, provides a brief comparison against previous results for the population of England and outlines the limitations of the study and recommendations for potential future research.

4.1 SUMMARY OF MODEL FINDINGS

4.1.1 Changes to consumption

M1. Increasing levels of minimum pricing show steep increases in effectiveness: overall estimated changes in consumption are:

Minimum price	Change in consumption
25p	-0.2%
30p	-0.5%
35p	-1.3%
40p	-2.7%
45p	-4.7%
50p	-7.2%
55p	-10.0%
60p	-12.9%
65p	-15.9%
70p	-18.9%

Note that estimates for lower minimum prices are subject to less modelling uncertainty than those for higher minimum prices. This is because the consideration of supply-side responses, and in particular a possible restructuring of the market following large mandated price increases in sections of the market, was outside the scope of the model.

M2. Lower minimum price thresholds are associated with reductions in beer/cider and spirit consumption but increases in wine consumption due to switching. For example, for a 30p threshold, beer/cider consumption reduces by 4.1 units per drinker per annum, spirit consumption reduces by 3.2 units, RTD consumption is virtually unchanged, whilst wine consumption increases by 3.3 units. Wine consumption also starts to decrease at thresholds over 45p.

M3. A total ban on off-trade discounting is estimated to change overall consumption by -3.0%. This is similar to the impact of a minimum price policy in the region 40p (-2.7%) to 45p (-4.7%). Note that the ‘total ban’ is assumed to prohibit all forms of price-based promotion, including straight discounting from list price in addition to multi-buy offers (such as ‘buy three for the price of two’). More limited types of ban have not been appraised because the market research data available to the study

does not differentiate between types of price-based promotion. If the Scottish implementation of restrictions to off-trade discounting excludes particular types of discounting then the results reported here may overestimate the effectiveness of the policy.

M4. An off-trade discount ban affects wine consumption the most: change in mean consumption per drinker per annum is estimated to be -4.9 units (-1.6%) for beer/cider, -4.6 units (-2.4%) for spirit, -0.1 units (-0.4%) for RTD and -14.9 units (-5.3%) for wine. The impact on RTD, whilst small, is greater than that seen for any of the minimum price thresholds considered.

M5. At lower minimum price thresholds, the combined effect of an off-trade discount ban and a minimum price is close to the individual effects of the two polices added together. At higher minimum price thresholds, the marginal increased effectiveness of an off-trade discount ban is reduced. Combining a discount ban with minimum pricing results in the following additional percentage point changes in consumption:

Minimum price	Change in consumption (beyond effect of minimum price)
25p	-3.0%
30p	-3.0%
35p	-2.9%
40p	-2.6%
45p	-2.3%
50p	-2.0%
55p	-1.6%
60p	-1.4%
65p	-1.2%
70p	-1.1%

4.1.2 Changes in levels of health, crime and workplace harm

M6. Low minimum price thresholds (eg. 25p per unit) have little impact at reducing harmful outcomes.

M7. As the minimum price threshold increases, alcohol-related hospital admissions and deaths are estimated to reduce: for example, -3,600 admissions per annum (once the full effect on the risk of harm has been realised) for a 40p threshold compared to -8,900 per annum for a 50p threshold. Most of the prevented deaths over the ten year timeframe occur in harmful drinkers. The majority of health harm reductions are in

chronic diseases. This is because much of the alcohol-attributable health harm occurs in middle or older age groups at significant risk of developing and potentially dying from chronic disease.

M8. As the minimum price threshold increases, alcohol-related crimes are estimated to reduce: for example -1,100 offences per annum for a 40p threshold compared to -4,200 offences per annum for a 50p threshold. Crime reductions take place across the spectrum of violent crime, criminal damage and acquisitive crimes.

M9. Crime-related harms are estimated to reduce proportionately less than health-related harms overall: for example, for the 50p minimum price, alcohol-related hospital admissions at full effect are estimated to reduce by 13.5% whilst alcohol-related crimes reduce by 1.5%. This effect occurs because the population sub-groups most associated with alcohol-related crime tend to consume a greater proportion of their alcohol in the on-trade (when compared to the population average) and therefore are less affected by policies such as minimum pricing which impact more in the off-trade.

M10. As the minimum price threshold increases, absenteeism from work is estimated to reduce: a minimum price of 40p is estimated to reduce days absent from work by approximately 12,000 per annum, whereas for 50p the reduction is estimated at almost 35,000.

M11. As the minimum price threshold increases, unemployment due to alcohol problems is estimated to reduce (in the model unemployment is a risk factor only for harmful drinkers). For a 40p threshold, 800 avoided cases of unemployment are estimated per annum; for 50p the figure is 1,700. Note that the estimated unemployment effects are based on evidence of association studies, rather than detailed prospective analysis of the dynamic effects of employed people becoming unemployed as a consequence of their drinking behaviour, or of unemployed people becoming employed again as a consequence of reductions in alcohol consumption. The estimated effects make no assumption about the direction of these processes and there is no analysis of how the current economic climate might affect these findings.

M12. The effectiveness of an off-trade ban relative to a defined minimum price varies depending on the type of harm considered: for health outcomes the effect is close to 39p, for crime: 45p, for absenteeism: 44p, and for unemployment: 38p.

4.1.3 Changes to consumer spending and retailer revenue

M13. Consumer spending is estimated to increase under all policies. This is because drinkers faced with a price increase of, for example, 10% would on average reduce their consumption by less than 10%. For example, under a 40p minimum price policy, consumption is estimated to reduce by 2.7% and overall spending increases by 3.4%.

M14. Retailer revenue from the sale of alcoholic beverages is estimated to increase under all policies: the model predicts increases in both off-trade and on-trade sectors (excluding duty and VAT). Higher minimum prices lead to greater additional retail revenues; however the model does not provide a breakdown of the revenue across the supply chain. For a 40p minimum price, total retailer revenue is estimated to increase by £90m per annum.

M15. Effects on VAT and duty receipts are estimated to be relatively small, due to the counter-balancing nature of the two taxes: duty is applied to the volume of sales (which is reducing overall) but the VAT is applied to the monetary value of sales (which is increasing overall). For a 40p minimum price, total receipts are estimated to reduce by £4m.

4.1.4 Valuation of harm reductions

M16. As the minimum price threshold increases, the financial value of harm reductions increases: the overall cumulative discounted financial value of harm reduction over ten years is estimated at £540m for a 40p threshold; this valuation more than doubles for a 50p threshold (£1.3b). The valuation continues to increase steeply as the threshold is incremented. Inclusion of a discount ban also increases the estimated savings: for example, £950m over ten years for 40p in combination with a ban.

M17. The largest financially valued component of harm reduction is the estimated impact on health-related quality of life: for example, just over half of the total £540m harm reduction in the 40p minimum price scenario is from the financial valuation of health quality adjusted life years (using £50,000 per QALY).

M18. As the minimum price threshold increases, healthcare costs are reduced: for example health and social care costs avoided due to reduced illness and admissions are estimated to be approximately £60m for the 40p threshold and £160m for the 50p threshold (in total over 10 years). The value of the health-related quality of life gains represents the largest component of health savings: estimated at £290m for 40p and £730m for 50p.

M19. As the minimum price threshold increases, crime costs are reduced: for example, direct costs of crime reduce by approximately £10m per year for a 40p threshold compared to £30m for a 50p threshold. Similarly the value of the loss of victim quality of life changes from around £5m to £25m (using £81,000 per QALY).

4.1.5 Policy effects on different population sub-groups

M20. Those who buy the most alcohol are the most affected in both absolute and relative terms: changes in spending affect mostly harmful drinkers, with hazardous drinkers somewhat affected and spending for moderate drinkers affected very little. For example, for a 40p minimum price in combination with an off-trade discount ban, extra spending per drinker per annum for moderate, hazardous and harmful drinkers is estimated at £11, £58 and £137 respectively (corresponding to an average additional spend per week of £0.21 for moderate drinkers, £1.12 for hazardous drinkers and £2.63 for harmful drinkers).

M21. For all minimum price scenarios, with or without the presence of an off-trade discount ban, the majority of the health and healthcare benefits come from the harmful drinking group (eg. 62% of the reduction in hospital admissions due to a 40p minimum price) even though these represent a small minority (7%) of drinkers.

M22. Reductions in crime are spread more evenly between the three drinker groups than for health-related outcomes. For example, for an off-trade discount ban, the reduction in crime volumes per annum is estimated to comprise 700 from moderate drinkers, 1,200 from hazardous drinkers and 500 from harmful drinkers. This effect arises because a large proportion of alcohol-related crime occurs in younger people, many of whom are hazardous drinkers but very few of whom are harmful drinkers.

M23. The relative contribution of the three drinker groups to reductions in days of absence is similar to that of crime. For example, for a 40p minimum price combined with an off-trade discount ban, the reduction in absenteeism is estimated to be 8,700 days per annum for moderate drinkers, 11,700 days per annum for hazardous drinkers and 8,200 days per annum for harmful drinkers. All reductions in unemployment arise from the harmful drinking group (since only this group is assumed in the model to be at risk of alcohol-attributable unemployment).

M24. The majority of the estimated financial value of harm reduction comes from the reduction in harms associated with harmful drinkers. Of the £950m harm reduction estimated for a 40p minimum price in combination with a discount ban, close to £530m is from harmful drinkers.

4.1.6 Sensitivity of findings to alternative modelling assumptions

M25. Probabilistic sensitivity analysis around the 'active ingredient' in the model – the price elasticities – has been performed to test the robustness of the baseline results. Despite a lack of statistical significance around many of the estimated parameters used to construct cross-price elasticities, the 95% confidence intervals for changes in consumption due to each policy tested are quite tight. For a 40p minimum price, the change is estimated at [-2.6% -2.9%] (lower and upper 95% confidence intervals); for an off-trade discount ban the change is estimated at [-3.0% -3.1%]; for the combination of these policies the change is estimated at [-5.2% -5.6%].

M26. Scenario analysis around the differential responsiveness of moderate drinkers and heavier drinkers has been performed to test the robustness of the baseline results. Using the modelling assumption made by Chisholm et al (2004), which reduces the elasticity estimates for hazardous and harmful drinkers by one third, effectiveness in terms of overall harm reduction is reduced. For example, for a 40p minimum price, the reduction in hospital admissions at full effect is estimated at 2,500 per annum (compared to 3,600 in the basecase) and the overall financial value of harm reduction is £520m (compared to £750m in the basecase). However all minimum pricing policies are still estimated to have greater effects on harmful drinkers than moderate drinkers. For example, for a 40p minimum price, the changes in consumption are -1.3% for moderate drinkers and -3.5% for harmful drinkers.

M27. Scenario analysis around the preferences for off-trade versus on-trade consumption has been performed to test the robustness of the baseline results. Alternative evidence from Nielsen suggests that the proportion of consumption that occurs in the off-trade is lower overall than that suggested by the Scottish EFS data. In general, for most policies considered, the use of Scottish Nielsen data reduces baseline effectiveness by approximately 16% (in terms of reduction in mean consumption) and 12% (in terms of overall valuation of harm reductions).

M28. Scenario analysis around the protective effects of alcohol for coronary heart disease has been performed to test the robustness of the baseline results. Using an alternative risk function – which assumes both an increased protective effect at existing protective consumption levels and an extension in the range of consumption levels giving a protective effect – has a small impact of the net chronic illness savings from minimum price policies. For example, for a 40p minimum price policy, the overall reduction in chronic illnesses at full effect is 1,400 (compared to 1,500 in the basecase); for moderate drinkers the figures are 110 and 120 respectively. The

difference in effect becomes larger at higher minimum prices (where the impact on consumption, and therefore impact on risk levels, is greater).

M29. Scenario analysis around the attribution of alcohol as a cause of crime, ie. the estimate of the proportion of overall crime that would not have happened if alcohol had not been consumed, has been performed to test the robustness of the baseline results. In one scenario, alcohol is only attributed if being drunk is reported as the only reason for committing a crime; in a second scenario, alcohol is attributed if a person reports being drunk at the time of committing a crime. The alternative assumptions can make quite a substantial difference to the results, reflecting the uncertainty in the evidence base around the link between alcohol and crime. For example, for a 40p minimum price, basecase assumptions result in an annual estimated reduction of 1,100 crimes per annum. In what could be considered a worst-case scenario, the estimate drops to 500; in a likely best-case scenario, the estimate increases to 2,400.

4.2 COMPARISON WITH ENGLAND

Comparisons between the new results for Scotland and the latest estimates for England, reported in Purshouse et al (2009), focus on the change in mean consumption arising from the policies. Comparisons in terms of impacts on harms are more challenging, due to differences in the definitions of alcohol-related health conditions and categories of crime, and are not attempted here.

A plot of estimated relative change in mean consumption for Scotland against relative change in mean consumption for England are shown for 30p, 40p, 50p, 60p and 70p minimum prices and a total ban on off-trade discounting in Figure 4.1. Comparisons of combined policies are not available since no previous estimates exist for England. The line of equal effect is also shown in the figure: all policies appear below and to the right of this line, indicating that the policies appear to be more effective at reducing consumption in Scotland than in England. For example, for a 40p minimum price the estimated changes in Scotland and England are -2.7% and -2.4% respectively. The corresponding estimates for a 50p threshold are -7.2% and -6.7%. The difference can principally be attributed to the higher estimated contribution of off-trade to total consumption in Scotland (73% compared to 69% in England). Note that as the minimum price threshold increases, the difference in effectiveness between the countries becomes larger in absolute percentage points terms but lessens in relative terms.

Comparisons between Scotland and England can also be made between the moderate, hazardous and harmful sub-populations – the changes in mean consumption are shown in Figure 4.2. The same pattern of effect across the policies is seen in both countries: moderate drinkers are affected the least (in both absolute and relative terms), followed by hazardous drinkers, with harmful drinkers affected the most. The differential impact on the sub-groups is more pronounced in Scotland: moderate drinkers are affected approximately 5% (0.1 percentage points) more in Scotland than in England for a 50p policy, but the increased effect on harmful drinkers is estimated at 22% (2.3 percentage points).

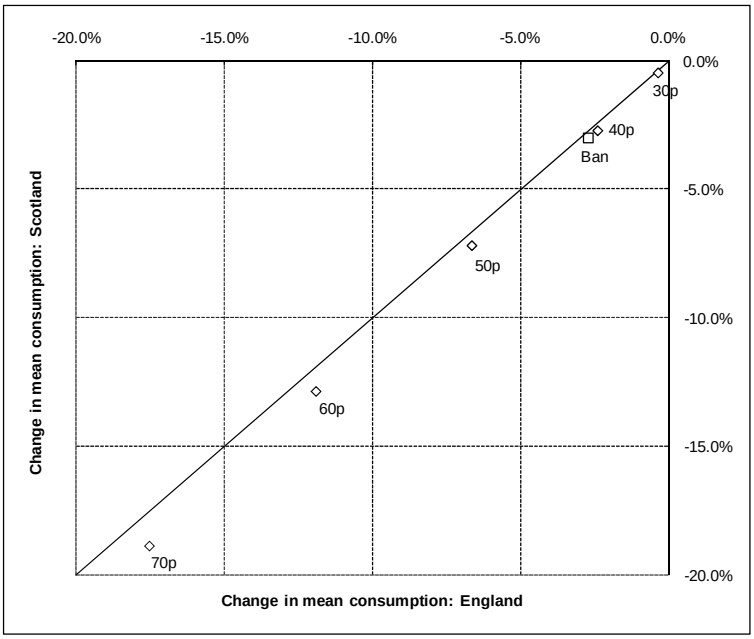


Figure 4.1: Comparison between England and Scotland of estimated change in mean consumption resulting from minimum price or off-trade discount ban policies

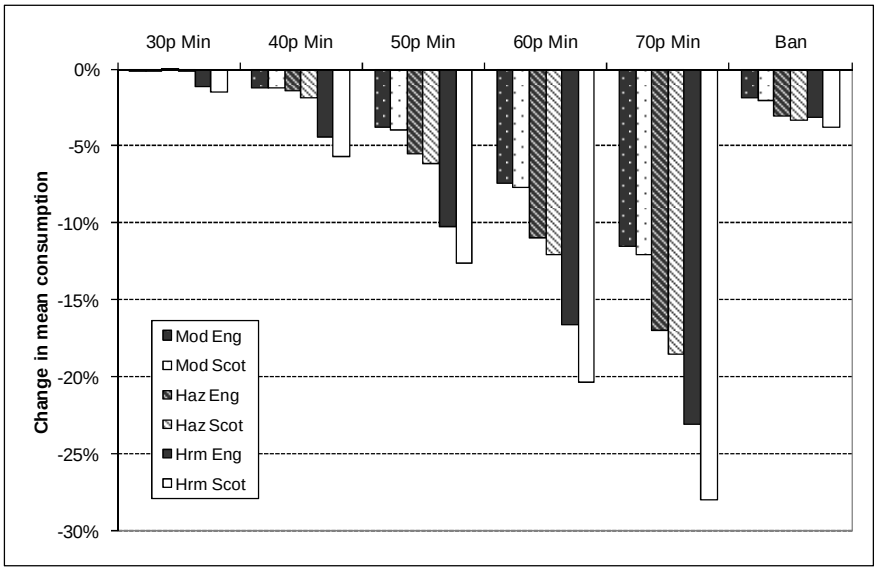


Figure 4.2: Comparison between England and Scotland – changes in consumption for moderate, hazardous and harmful drinkers

4.3 LIMITATIONS

4.3.1 Limitations in the model of the relationship between price and consumption

The main limitations relate to the availability and robustness of data. Information on baseline alcohol consumption levels is taken from two self-reported surveys: the Scottish Health Survey (SHeS) for people aged 16 and over, and the Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) for people aged 12 to 15. It is generally accepted that self-reported data underestimates actual consumption by as much as 50% (Stockwell et al, 2004), with heavier drinkers tending to underestimate their consumption more than moderate drinkers (Townshend and Duka, 2002). Household and school-based surveys may also under-represent some population groups at risk of alcohol-related harm, such as the homeless or young people excluded from school.

The model considers two patterns of alcohol consumption: average and heavy episodic drinking. Information on the frequency and volumes involved in the latter is somewhat restricted in the SHeS (measuring only amount consumed on the heaviest drinking day in the week prior to survey) and completely absent from the SALSUS. The consumption data used in the model is the latest available, but relates to 2003. Consumption levels in Scotland may have changed since this time, although Nielsen's high-level estimates of alcohol sales (in terms of ethanol) suggests that consumption has stayed steady between 2005 and 2007. A revised method of counting the alcohol content of drinks consumed (to account for increases in strength and serve size of beverages) has also been applied to the 2003 data in the model (Goddard, 2007).

Information on prices paid and proportions of spending in the off-trade and on-trade is also taken from a self-reported household survey – the Expenditure & Food Survey. Data relating to 13,531 individual purchasing transactions for alcohol by 2,858 Scottish residents is available over the period 2001/02 to 2005/06. However it is known that the English prices reported in the survey differ somewhat from market research data from 2008, even when deflated to 2008 prices. Detailed price distributions for Scotland, sourced from market research companies, were not available to this study and so the Scottish prices used in the model are based on England & Wales market research data, but adjusted for the relationship between Scottish and English prices reported in the EFS. The model considers the broad beverage categories of beer/cider, wine, spirit and RTD but does not currently consider detailed effects on specific beverage types (eg. whisky) or brands.

It is also important to recognise the limitations of both the off-trade and on-trade market research data for estimating price distributions in terms of ethanol consumption. The off-trade

data requires alcoholic strength assumptions to be made at aggregated product categories (thereby smoothing out some of the actual price variability), whilst the on-trade data does overcome this issue by containing low-level ABV information but requires assumptions to be made about the relationship between the number of different types of beverage offered and the actual quantity of ethanol consumed. In terms of robustness of results, for minimum price policies the most important prices are those below the threshold. Thus the closer the match between EFS/Nielsen price distributions and current retail price distributions, at the cheaper end of the market, the more accurate the model results will be. The off-trade discount ban results are more robust to changes in price assumptions since the policy impacts on a wide area of the distribution.

Detailed quantitative information on the nature of price-based promotions in the off-trade is generally quite limited. For England & Wales, data is available on the prevalence and magnitude of short-term discounts on alcoholic beverages in the large grocery chains. However no data is available on the magnitude of purchasing (eg. 'buy 3 for the price of 2') that may be required to qualify for the discount. Therefore straight discounting from list price cannot be differentiated from volume-based incentives. Also, if larger pack sizes are available for a lower regular price per unit than smaller pack sizes this is not recognised in the data as a price-based promotion. Note that data on price-based promotions in the off-trade in Scotland was not available to this study and therefore the model assumes that the distribution and magnitudes of discounting in Scotland are the same as those in England (after adjusting for differences between the English and Scottish price distributions). Also, the prices from the EFS, used to estimate price elasticities of demand, cannot be identified as being promoted or otherwise. Therefore, the elasticities used in the model are a hybrid of pure price-based effect size and price-based promotion effect size. If consumers respond more to a price change induced by a promotion than a conventional change to list price – perhaps due to the impression that they are 'getting a bargain' – then the model might overestimate the effect of price rises resulting from a minimum price policy, but also underestimate the effect of restrictions to discounting. The final point on this issue is that the model does not consider the possibility that retailers might switch marketing tactics from discounting to 'every day low prices'.

The purchasing data in the EFS is not used to estimate consumption levels for beer/cider, wine, spirit and RTD (these are based on the SHeS and the SALSUS) but is used to determine prices paid and preferences for off-trade versus on-trade purchasing for these beverage types. Since the model works with population sub-groups (defined by gender, age group and baseline consumption level), it is possible that purchasing preferences may be

misallocated between sub-groups since the person who purchases is not necessarily the person who consumes. Analysis of this issue for the population of England in Purshouse et al (2009) suggests that a realistic reallocation of purchasing data between sub-groups (in particular from females to males) is unlikely to make a large difference to the results.

The sample size of Scottish data in the EFS is insufficient to estimate fresh 16x16 elasticity matrices for Scotland and so the existing matrices for England are reused in the Scottish analysis. If the population of Scotland were to respond in a different way to price changes than the population of England then the true policy impacts may vary from the model results. It is likely that there will be some degree of incoherence in consumer switching behaviour due to preferences for different beverages between the two countries (eg. the relative contribution of spirit to overall consumption is higher on average in Scotland than in England). Note that the elasticities used relate to mean consumption; it has not been possible to derive elasticities concerning heavy episodic drinking. Therefore, impact on this latter pattern of consumption must be estimated indirectly using the relationship between mean consumption and peak consumption from the SHeS.

Estimates of consumption changes for lower minimum prices are likely to be subject to less modelling uncertainty than those for higher minimum prices. This is because the consideration of supply-side responses, and in particular a possible restructuring of the market following large mandated price increases in sections of the market, was outside the scope of the model.

4.3.2 Limitations in the model of the relationship between consumption and harmful outcomes

Limitations here relate to both the data specifically available for Scotland and also the general lack of evidence in the international literature around the relationship between alcohol consumption and certain outcomes of interest.

In general, the best quality evidence of the relationship between consumption and harm is for health conditions. However, it should be noted that the evidence base is often international (rather than specific to Scotland) and attribution is commonly based on a mix of mortality and morbidity evidence. Evidence of risk specifically by gender and age group is not always available. Debate continues over a definitive list of conditions that are causally related to alcohol. The modelling defers to the set selected for analysis of hospital admissions in Scotland (Grant et al, 2009) for reasons of consistency. For acute conditions and chronic conditions wholly attributable to consumption, risk functions have been estimated based on the observed volumes of cases considered to result from consumption. Linear functional

forms were selected in the absence of empirical evidence. One of the greatest areas of uncertainty is around the time lag between consumption change and risk change for chronic conditions, which will affect the timing of benefit realisations when policies are modelled. Since all policies are implemented with respect to a common base year, this is not a critical issue for comparing different options. Timing of benefits may be more important for a full cost-benefit analysis, although pricing policies have low implementation costs and the discount rate used is also relatively low (3.5%).

Mortality rates for Scotland have been taken from a single year (2007), which may introduce some estimation errors around conditions with a low prevalence. However, because of the low prevalence this is also unlikely to significantly impact on the overall results. Disease prevalence rates have been estimated using ISD's person-specific method counting (in the English model an alternative method was used, but neither approach is superior from a modelling perspective). The person-specific rates exclude potential co-morbidities. This will have a conservative effect on policy impacts. A more advanced modelling approach might attempt an incidence-based rather than prevalence-based framework.

Data from England has been used for disease prevalence healthcare unit costs and annual admission volumes since Scottish data was not available within the timescales of the study. The difference in costings is anticipated to be small. Welsh data, via HoDAR, continues to be used for utility estimates (Cardiff Research Consortium, 2008). Utility values are measured at a time six weeks following discharge, and so there is a question as to whether or not this is representative of the full consequences of a disease. However whether or not the measure is likely to produce an under-estimate or an over-estimate overall is not clear.

There is much uncertainty in the construction of a quantitative relationship between alcohol consumption and volumes of crime. From a theoretical perspective, an intoxication model is thought to capture most of the link between alcohol and crime (rather than, for example, a gainful model in which people steal in order to gain access to alcohol) for which the empirical evidence is based on self-attribution by offenders or urine/blood samples amongst arrestees. The data used in the model (from the Offending Crime and Justice Survey) relates to England & Wales rather than Scotland, and only covers ages up to 25 years. The OCJS offers a number of different measures of attribution, whereby the overall impact may be to halve or double the estimated level of crime reduction. The sample size for the offences covered by the survey is quite small (particularly for under 16 year olds) and the results may be affected by the usual issues relating to population self-reported surveys. The risk functions fitted to the observed attributable fractions are linear, given the lack of alternative

evidence. Since the risk functions are at a population-level rather than individual-level, there is no compelling reason why they should saturate at higher levels of alcohol consumption.

The unit costs of each type of crime considered in the modelling are based on evidence for England, since no cost estimates are available for Scotland. Baseline recorded crime volumes for Scotland are also inflated using English multipliers to estimate the actual volumes of crime (note that Scottish multipliers are available, but these are subject to more uncertainty than the English versions due to the smaller sample size, and there is substantial overlap between the multipliers for the two countries). Since the data coding of offences is different between the two countries, a bespoke mapping has had to be created between the coding systems, which may introduce matching errors.

The modelled relationship between alcohol consumption and absenteeism also contains uncertainty. In particular, the levels of attribution are taken from a survey of the Australian population (Roche et al, 2008) – which represents the only identified contemporary evidence on risk levels. The impact on levels of unemployment represents the largest financial component of estimated harm reduction for all of the policies considered. However, caution is required in interpreting these findings since they are based on an associative study of English males that does not consider the dynamic effects of employed people becoming unemployed as a consequence of their drinking behaviour or unemployed people becoming employed again as a consequence of reductions in alcohol consumption. Also, the impact of the current economic climate on the findings is not considered.

4.3.3 Other limitations

The model is limited in its ability to represent the behaviour of, and impacts to, the supply-side of the alcohol economy. High-level estimates are provided of revenue changes to alcohol retailers, but are not broken down by type of retailer or brand of retailer. Nor are estimates made of profit or otherwise from alcohol for retailers since analysis of retailer cost bases is not included in the modelling. Similarly, there is no quantified assessment here (beyond the retail sales overall) of the potential impact on different producers of alcohol, since direct information on their costs, the wholesale market, and the profit made by producers in selling on to retailers are not covered by the modelling. Some other transitional costs are not examined, including effects on the advertising or media industry.

It is important not to misinterpret the increased sales values to retailers (and therefore increased costs to consumers) projected by the model: the changes in consumer expenditure under the different scenarios are not ‘net effects’ and cannot be interpreted as ‘costs of the policy’ against which the ‘savings of the policy’ (eg. in terms of public sector health and crime

or wider workforce savings) should be balanced. This is because the increased expenditure by consumers has to be considered in conjunction with the increased revenue to the alcohol industry (producers, wholesalers and retailers) and possibly reduced revenue to other sectors of the economy. The increased revenue to the alcohol industry will return to the wider economy in a variety of ways; for example, wages and salaries to industry employees, profits to individual and institutional shareholders, including pension funds, and potential price reductions on other goods where retailers have been using alcohol as a loss leader. The analysis presented here does not include this dynamic analysis of the full effects of redistribution through the economic system.

Finally, the model does not formally analyse trends, assuming steady-state alcohol consumption and levels of harm unless there is a change to alcohol prices. This enables analysis of policy impact assuming all else remains equal, but does make validation against historical data challenging because of other factors affecting alcohol consumption (eg. changed licensing hours or reduced real terms incomes) occurring simultaneously with price changes.

4.4 AREAS FOR POSSIBLE FUTURE RESEARCH

Arguably, the most critical research programme that would benefit alcohol pricing and promotional policy research in the medium to long term would be the establishment of a longitudinal survey combining details of both alcohol purchasing and alcohol consumption.

A much more intensive economics based research programme than the current study could develop modelling approaches to account for the effects of actions taken by the industry in response to the policy options and the possible effects on the market structure and supply.

A future economic appraisal could also potentially extend to other exclusions from the current analysis, such as wider harms within or beyond health, crime and workplace sectors (such as healthcare costs to patients or their families, or the impact on educational prospects and future life course) and potential lost benefits (such as transitional costs to parts of industry, or lost consumer surplus). Such an appraisal might also consider equity issues, such as the overall impact of the policies on people of low incomes.

REFERENCES

AC Nielsen, 2008, Data deliverables for 'Requirement specification for price and promotion distribution of alcohol sales in the off-trade'. © Nielsen 2008

BMRB. Social Research, Scottish Schools Adolescent Lifestyle and Substance Use Survey, 2006 [computer file]. Colchester, Essex: UK Data Archive [distributor], May 2008. SN: 5826.

Brand S & Price R, 2000, The economic and social costs of crime.

Booth A, Meier P, Stockwell T, Sutton A, Wilkinson A, Wong R, Brennan A, O'Reilly D, Purshouse R & Taylor K, 2008, Independent review of the effects of alcohol pricing and promotion: systematic reviews.

Brennan A., Purshouse R, Taylor K & Rafia R, 2008, Independent review of the effects of pricing and promotion: Part B. Modelling the potential impact of pricing and promotion policies for alcohol in England. Results from the Sheffield Alcohol Policy Model version 2008 (1-1).

Brown M & Bolling K, 2007, 2006 Scottish crime and victimisation survey: main findings. Scottish Government Social Research.

Cabinet Office, 2003, Alcohol misuse: How much does it cost?

Cardiff Research Consortium, 2008, Health Outcomes Data Repository (HODaR).

Carthy T, Chilton S, Covey J, Hopkins L, Jones-Lee M, Loomes G, Pidgeon N & Spencer A, 1999, The contingent valuation of safety and the safety of contingent valuation, Part 2: The CV/SG 'Chained' Approach, Journal of Risk and Uncertainty. 17:187-213.

Centre for Economics and Business Research, 2009, Minimum alcohol pricing: A targeted measure?

CGA Strategy, 2009, Data deliverables for 'Requirement specification for price and promotion distribution of alcohol sales in the on-trade'. © CGA Strategy 2009

Chisholm D, Rehm J, Van Ommeren M & Monteiro M, 2004, Reducing the global burden of hazardous alcohol use: a comparative cost-effectiveness analysis. J Stud Alcohol, 65(6):782-93.

Corrao G, Rubbiati L, Bagnardi V, Zambon A & Poikolainen K, 2000, Alcohol and coronary heart disease: a meta-analysis. Addiction, 95(10):1505-1523.

Corrao G, Bagnardi V, Zambon A & La Vecchia C, 2004, A meta-analysis of alcohol consumption and the risk of 15 diseases. Prev Med, 38(5):613-9.

Department of Health, 2008, Safe, Sensible, Social – Consultation on further action Impact Assessments.

Dolan P, Loomes G, Peasgood T & Tsuchiya A, 2005, Estimating the intangible victim costs of violent crime. British Journal of Criminology, 45:958–976.

Dubourg R, Hamed J & Thorns J, 2005, The economic and social costs of crime against individuals and households 2003/04.

English DR, Holman CDJ, Milne E, Winter M, Hulse GK et al, 1995, The quantification of drug caused morbidity and mortality in Australia. Canberra: Commonwealth Department of Human Services and Health.

Fillmore KM, Stockwell T, Chikritzhs T, Bostrom A & Kerr W, 2007, Moderate alcohol use and reduced mortality risk: systematic error in prospective studies and new hypotheses. Ann.Epidemiol, 17:S16-S23.

Grant I, Springbett A & Graham L, 2009, Alcohol attributable mortality and morbidity: alcohol population attributable fractions for Scotland.

Goddard E, 2007, Estimating alcohol consumption from survey data: updated method of converting volumes to units.

Gunning-Schepers L, 1989, The health benefits of prevention: a simulation approach. Health Policy, 12(1-2):1-255.

Gutjahr E, Gmel G & Rehm J, 2001, Relation between average alcohol consumption and disease: an overview. European addiction research, 7(3):117-27.

Hamajima N, Hirose K, Tajima K, Rohan T, Calle EE, Heath CW Jr et al, 2002, Alcohol, tobacco and breast cancer--collaborative reanalysis of individual data from 53 epidemiological studies, including 58,515 women with breast cancer and 95,067 women without the disease. British Journal of Cancer, 87(11):1234-45.

Home Office. Research, Development and Statistics Directorate. Offending Surveys and Research, National Centre for Social Research and BMRB. Social Research, Offending, Crime and Justice Survey, 2006 [computer file]. 2nd Edition. Colchester, Essex: UK Data Archive [distributor], December 2008. SN: 6000.

Hughes K, Anderson Z, Morleo M, Bellis MA, 2008, Alcohol, nightlife and violence: the relative contributions of drinking before and during nights out to negative health and criminal justice outcomes. Addiction, 103(1):60–65.

Joint Health Surveys Unit, University College London and Medical Research Council. Social and Public Health Sciences Unit, Scottish Health Survey, 2003 [computer file]. Colchester, Essex: UK Data Archive [distributor], February 2006. SN: 5318.

Kershaw C, Nicholas S & Walker A, 2008, Crime in England and Wales 2007/08. Findings from the British Crime Survey and police recorded crime. Home Office Statistical Bulletin 07/08.

MacDonald Z & Shields MA, 2004, Does problem drinking affect employment? Evidence from England. Health Economics, 13:139-155.

Manning WG, Blumberg L & Moulton LH, 1995, The demand for alcohol: the differential response to price. J.Health Econ, 14:123-148.

Norstrom T & Skog OJ, 2001, Alcohol and mortality: methodological and analytical issues in aggregate analyses. Addiction, 96 Suppl 1:S5-17.

Office for National Statistics and Department for Environment Food and Rural Affairs. Expenditure and Food Survey, 2006 [computer file]. Distributor: UK Data Archive. Colchester, Essex. SN: 5986 2008.

Office for National Statistics. Social and Vital Statistics Division and Northern Ireland Statistics and Research Agency. Central Survey Unit, Quarterly Labour Force Survey, October - December, 2008 [computer file]. 2nd Edition. Colchester, Essex: UK Data Archive [distributor], July 2009. SN: 6119.

Purshouse R, Brennan A, Latimer N, Meng Y, Rafia R, Jackson R & Meier P, 2009, Modelling to assess the effectiveness and cost-effectiveness of public health related strategies and interventions to reduce alcohol attributable harm in England using the Sheffield Alcohol Policy Model version 2.0. Report to the NICE Public Health Programme Development Group. Draft for consultation.

Rehm J, Room R, Moneiro M, Gmel G, Graham K, 2004, Alcohol. In: Ezzati M, Lopez A, Rodgers A, Murray C, editors. Comparative quantification of health risks: Global and regional burden of disease due to selected major risk factors. Geneva: World Health Organization, 959-1108.

Roche AM, Pidd K, Berry JG & Harrison JE, 2008, Workers' drinking patterns: the impact on absenteeism in the Australian work-place. Addiction, 103(5):738-48.

Scottish Government, 2008a, Changing Scotland's relationship with alcohol: A discussion paper on our strategic approach.

Scottish Government, 2008b, Nielson Information. http://www.scotland.gov.uk/Topics/Health/health/Alcohol/resources/nielson-data (last accessed 28 August 2009) © Nielsen 2008

Scottish Government, 2008c, Recorded crime in Scotland, 2007/08. Statistical Bulletin Crime and Justice Series.

Scottish Government, 2009, Changing Scotland's relationship with alcohol: A framework for action.

Stockwell T, Donath S, Cooper-Stanbury M, Chikritzhs T, Catalano P & Mateo C, 2004, Under-reporting of alcohol consumption in household surveys: a comparison of quantity-frequency, graduated-frequency and recent recall. Addiction, 99:1024-1033.

Townshend JM & Duka T, 2002, Patterns of alcohol drinking in a population of young social drinkers: a comparison of questionnaire and diary measures. Alcohol, 37(2):187-92.

Wagenaar A, Salois MJ & Komro KA, 2008, Effects of beverage alcohol taxes and prices on consumption: a systematic review and meta-analysis of 1003 estimates from 112 studies. Addiction, 104(2):179–190.

APPENDICES

Appendix 1: Age/gender consumption distribution from the SHeS (2003) – Descriptive statistics

Mean Consumption	Intake the heaviest day	18– 24 years		25 – 34 years		35 – 44 years		45 – 54 years		55 – 64 years		65 – 74 years		75 years +	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F
Abstainers		7.07%	9.96%	7.60%	9.53%	8.06%	10.53%	5.89%	9.11%	7.31%	15.53%	10.22%	22.77%	21.92%	33.40%
Moderate	< 6 / 8 units	34.02%	38.44%	39.01%	45.11%	43.51%	46.88%	44.49%	48.48%	48.08%	56.14%	57.49%	59.93%	55.45%	60.36%
	≥ 8 / 6 units	18.96%	15.78%	17.60%	17.20%	13.90%	15.39%	11.83%	12.66%	9.97%	7.81%	6.19%	4.94%	1.71%	1.14%
Hazardous	< 6 / 8 units	9.13%	6.12%	8.37%	5.86%	9.71%	9.22%	10.74%	10.40%	12.18%	9.47%	13.62%	7.66%	13.28%	4.17%
	≥ 8 / 6 units	21.76%	22.19%	20.52%	17.37%	16.26%	13.31%	18.04%	12.52%	11.22%	8.14%	6.32%	3.20%	3.27%	0.62%
Harmful	< 6 / 8 units	0.49%	1.64%	0.94%	0.52%	2.03%	0.88%	2.92%	1.56%	2.46%	0.29%	1.82%	0.00%	2.00%	0.09%
	≥ 8 / 6 units	8.58%	5.86%	5.96%	4.41%	6.54%	3.79%	6.09%	5.28%	8.78%	2.62%	4.34%	1.50%	2.36%	0.22%
Total		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table A1.1: Age and gender-specific distribution of drinking behaviour in adults in Scotland in 2003

	18– 24 years		25 – 34 years		35 – 44 years		45 – 54 years		55 – 64 years		65 – 74 years		75 years +	
Intake the heaviest day	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
Abstainers	7.07%	9.96%	7.60%	9.53%	8.06%	10.53%	5.89%	9.11%	7.31%	15.53%	10.22%	22.77%	21.92%	33.40%
< 6 / 8 units	43.63%	46.20%	48.33%	51.49%	55.25%	56.98%	58.16%	60.44%	62.72%	65.90%	72.93%	67.59%	70.73%	64.62%
≥ 8 / 6 units	49.30%	43.84%	44.08%	38.98%	36.70%	32.49%	35.95%	30.45%	29.97%	18.57%	16.86%	9.64%	7.35%	1.98%

Table A1.2: Heavy episodic drinking in Scotland in 2003

Appendix 2: Off-trade alcohol price-based promotion distributions

				RRP (£ per unit)									
Sale price (£ per unit)	Proportion on promotion (%)		Sale price (£ per unit)	0-0.15	0.15-0.2	0.2-0.25	0.25-0.3	0.3-0.35	0.35-0.4	0.4-0.5	0.5-0.6	0.6-0.7	>0.7
0-0.15	24.8%		**0-0.15**	47.3%	42.4%	8.8%	1.0%	0.4%	0.1%	0.1%	0.0%	0.0%	0.0%
0.15-0.2	46.9%		**0.15-0.2**	0.0%	46.5%	35.0%	5.4%	8.4%	4.1%	0.6%	0.0%	0.0%	0.0%
0.2-0.25	67.1%		**0.2-0.25**	0.0%	0.0%	26.3%	32.3%	24.2%	11.2%	5.3%	0.7%	0.0%	0.0%
0.25-0.3	63.5%		**0.25-0.3**	0.0%	0.0%	0.0%	30.8%	34.6%	19.9%	9.5%	5.1%	0.1%	0.0%
0.3-0.35	48.3%		**0.3-0.35**	0.0%	0.0%	0.0%	0.0%	42.7%	36.7%	16.9%	2.8%	0.8%	0.1%
0.35-0.4	44.8%		**0.35-0.4**	0.0%	0.0%	0.0%	0.0%	0.0%	49.5%	42.2%	6.5%	0.7%	1.1%
0.4-0.5	43.5%		**0.4-0.5**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	24.4%	5.0%	1.6%
0.5-0.6	44.7%		**0.5-0.6**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.4%	29.6%	4.1%
0.6-0.7	23.2%		**0.6-0.7**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	36.7%
>0.7	16.8%		**>0.7**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table A2.1: Off-trade alcohol price-based promotion distribution – beer/cider (derived from data © Nielsen 2008)

				RRP (£ per unit)									
Sale price (£ per unit)	Proportion on promotion (%)		Sale price (£ per unit)	0-0.15	0.15-0.2	0.2-0.25	0.25-0.3	0.3-0.35	0.35-0.4	0.4-0.5	0.5-0.6	0.6-0.7	>0.7
0-0.15	41.3%		**0-0.15**	91.6%	2.1%	1.4%	1.4%	1.4%	0.4%	1.2%	0.4%	0.0%	0.1%
0.15-0.2	33.2%		**0.15-0.2**	0.0%	73.6%	11.8%	5.3%	6.2%	1.7%	1.0%	0.3%	0.0%	0.1%
0.2-0.25	49.2%		**0.2-0.25**	0.0%	0.0%	56.9%	27.5%	7.9%	2.1%	4.1%	1.3%	0.2%	0.1%
0.25-0.3	44.5%		**0.25-0.3**	0.0%	0.0%	0.0%	73.1%	13.2%	5.5%	3.5%	4.1%	0.2%	0.4%
0.3-0.35	51.6%		**0.3-0.35**	0.0%	0.0%	0.0%	0.0%	46.4%	17.3%	24.5%	5.0%	5.6%	1.1%
0.35-0.4	65.6%		**0.35-0.4**	0.0%	0.0%	0.0%	0.0%	0.0%	38.6%	30.6%	20.5%	2.9%	7.3%
0.4-0.5	61.7%		**0.4-0.5**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	41.4%	33.6%	14.1%	10.9%
0.5-0.6	48.9%		**0.5-0.6**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.5%	15.8%	29.7%
0.6-0.7	46.9%		**0.6-0.7**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.8%	44.2%
>0.7	44.3%		**>0.7**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table A2.2: Off-trade alcohol price-based promotion distribution – wine (derived from data © Nielsen 2008)

				RRP (£ per unit)									
Sale price (£ per unit)	**Proportion on promotion (%)**		**Sale price (£ per unit)**	**0-0.15**	**0.15-0.2**	**0.2-0.25**	**0.25-0.3**	**0.3-0.35**	**0.35-0.4**	**0.4-0.5**	**0.5-0.6**	**0.6-0.7**	**>0.7**
0-0.15	11.5%		**0-0.15**	56.5%	40.2%	1.1%	1.1%	0.4%	0.3%	0.2%	0.2%	0.0%	0.0%
0.15-0.2	26.8%		**0.15-0.2**	0.0%	74.3%	15.2%	2.4%	0.9%	6.7%	0.5%	0.0%	0.0%	0.0%
0.2-0.25	20.3%		**0.2-0.25**	0.0%	0.0%	57.1%	25.5%	7.4%	9.2%	0.9%	0.0%	0.0%	0.0%
0.25-0.3	24.7%		**0.25-0.3**	0.0%	0.0%	0.0%	66.1%	25.2%	6.0%	2.6%	0.1%	0.0%	0.0%
0.3-0.35	47.9%		**0.3-0.35**	0.0%	0.0%	0.0%	0.0%	41.5%	35.9%	22.0%	0.6%	0.0%	0.0%
0.35-0.4	54.0%		**0.35-0.4**	0.0%	0.0%	0.0%	0.0%	0.0%	37.4%	59.6%	2.8%	0.3%	0.0%
0.4-0.5	30.3%		**0.4-0.5**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	71.9%	23.7%	3.9%	0.4%
0.5-0.6	32.8%		**0.5-0.6**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.6%	44.0%	7.4%
0.6-0.7	27.8%		**0.6-0.7**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	57.2%	42.8%
>0.7	23.5%		**>0.7**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table A2.3: Off-trade alcohol price-based promotion distribution – spirit (derived from data © Nielsen 2008)

				RRP (£ per unit)									
Sale price (£ per unit)	**Proportion on promotion (%)**		**Sale price (£ per unit)**	**0-0.15**	**0.15-0.2**	**0.2-0.25**	**0.25-0.3**	**0.3-0.35**	**0.35-0.4**	**0.4-0.5**	**0.5-0.6**	**0.6-0.7**	**>0.7**
0-0.15	57.9%		**0-0.15**	1.3%	0.0%	2.4%	51.6%	20.4%	1.5%	1.7%	11.5%	0.7%	8.9%
0.15-0.2	71.0%		**0.15-0.2**	0.0%	0.8%	1.3%	25.9%	26.4%	32.3%	4.3%	1.1%	3.0%	4.8%
0.2-0.25	16.9%		**0.2-0.25**	0.0%	0.0%	29.8%	13.9%	13.9%	13.9%	7.2%	6.5%	4.6%	10.2%
0.25-0.3	28.3%		**0.25-0.3**	0.0%	0.0%	0.0%	68.2%	3.1%	21.1%	1.0%	4.9%	0.4%	1.4%
0.3-0.35	30.2%		**0.3-0.35**	0.0%	0.0%	0.0%	0.0%	13.3%	39.6%	37.6%	3.8%	4.0%	1.7%
0.35-0.4	16.9%		**0.35-0.4**	0.0%	0.0%	0.0%	0.0%	0.0%	78.8%	14.6%	2.6%	1.0%	3.0%
0.4-0.5	24.3%		**0.4-0.5**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	29.1%	36.1%	13.4%	21.4%
0.5-0.6	39.7%		**0.5-0.6**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	38.8%	21.2%
0.6-0.7	66.8%		**0.6-0.7**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	59.5%	40.5%
>0.7	41.6%		**>0.7**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table A2.4: Off-trade alcohol price-based promotion distribution – RTD (derived from data © Nielsen 2008)

Appendix 3: Statistical regression model: relationship between the scale of the binge and the mean daily consumption

	IF (Moderate)	IF (Hazardous)	IF (Harmful)	
maximum unit drunk =				
Moderate drinker	1.098580	2.254361	3.979221	male aged 18 – 24
	0.477339	1.362142	1.278420	male aged 25 – 34
(mean daily intake)*2.79214 + 1.364592	0.133620	0.071406	-5.421559	male aged 35 – 44
	-0.662434	-0.909799	-6.855787	male aged 45 – 54
	-1.079969	-3.470764	-6.014282	male aged 55 – 64
Hazardous drinker	-1.477270	-5.406630	-7.676560	male aged 65 – 74
	-1.972224	-6.086027	-11.081560	male aged 75 +
(mean daily intake)*1.025314 + 6.547749	-1.017517	2.023390	3.513359	female aged 16 – 17
	0.308702	1.312020	-3.941166	female aged 18 – 24
	0.021555	-0.600249	-4.574482	female aged 25 – 34
Harmful drinker	-0.310691	-2.177181	-7.259198	female aged 35 – 44
	-0.466168	-3.419399	-8.513881	female aged 45 – 54
(mean daily intake)*0.565198 + 13.23296	-0.991286	-4.295007	-7.453464	female aged 55 – 64
	-1.153954	-5.733740	-9.840574	female aged 65 – 74
	-1.417338	-6.415822	-12.875660	female aged 75 +

R-Squared	0.3283	0.1875	0.2486
Adjusted R-Squared	0.3265	0.1797	0.2219
Root MSE	3.4529	6.019	7.5703

Appendix 4: Detailed tables for alcohol-attributable health conditions

Conditions	ICD-10 codes	11-15 yrs		16-17 yrs		18-24 yrs		25 – 34 yrs		35 – 44 yrs		45 – 54 yrs		55 – 64 yrs		65 – 74 yrs		75 + yrs	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cancer of the lip oral cavity and pharynx	C00-C06, C09-10, C12-14	2	0	0	0	3	4	3	7	22	18	110	43	271	98	186	84	120	79
Oesophageal cancer	C15	0	0	0	0	0	0	1	2	14	2	86	21	252	83	287	137	263	234
Colorectal cancer	C18-C20	1	0	0	0	1	1	15	10	57	68	225	226	616	410	880	640	902	880
Cancer of the liver and intrahepatic bile ducts	C22	1	0	0	0	1	0	0	3	9	2	17	10	56	23	76	40	93	59
Laryngeal cancer	C32	0	0	0	0	0	0	1	0	7	1	49	6	122	27	105	33	66	15
Breast cancer	C50	0	0	0	0	1	1	2	120	2	662	9	1471	14	1661	11	1325	16	962
Alcohol induced pseudo Cushing's Syndrome	E24.4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Wernicke's encephalopathy	E51.2	0	0	0	0	0	0	2	0	1	1	4	1	4	2	5	1	0	0
Mental and behavioural disorders due to use of alcohol	F10	163	149	124	90	520	206	706	248	1389	466	1608	597	1506	441	908	260	405	129
Degeneration of nervous system due to alcohol	G31.2	0	0	0	0	0	0	0	1	3	0	3	2	7	1	2	0	0	1
Epilepsy and Status epilepticus	G40-G41	157	110	54	54	180	197	296	256	441	391	429	409	384	349	328	280	276	311
Alcoholic polyneuropathy	G62.1	0	0	0	0	0	0	0	0	2	1	3	2	0	1	0	0	1	0
Alcoholic myopathy	G72.1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	0	0
Hypertensive diseases	I10-I15	29	28	8	6	39	49	192	185	764	751	2023	2100	3807	4083	5038	5986	5267	9232
Coronary heart disease	I20-25	0	0	0	1	10	7	75	41	821	350	3082	1471	6074	3176	8144	5874	8832	9508
Alcoholic cardiomyopathy	I42.6	0	0	0	0	0	0	2	0	3	0	7	0	8	3	6	2	5	0
Cardiac arrhythmias	I47, I48	18	15	6	18	70	52	115	89	316	196	608	356	1546	867	2419	2014	3908	5639
Haemorrhagic stroke	I60-I62	5	2	1	1	11	9	14	11	49	66	106	102	144	110	223	154	256	362
Ischaemic stroke	I63-I66	0	0	1	0	4	10	24	26	83	76	258	151	598	342	912	756	1408	2183
Oesophageal varices	I85, I98.2	2	7	2	3	6	8	12	4	44	26	93	61	116	99	89	97	44	42
Mallory-Weiss syndrome	K22.6	4	1	1	1	34	14	32	14	29	23	27	17	21	8	30	19	32	23
Alcoholic gastritis	K29.2	2	0	4	1	33	12	52	15	72	22	83	17	52	13	12	3	5	5
Alcoholic liver disease	K70	0	0	0	0	9	2	64	43	308	166	586	308	628	282	344	141	99	41
Unspecified liver disease	K73, K74.0-2, K76.0, K76.9	4	2	0	1	7	7	30	20	76	65	112	93	107	80	83	82	51	58
Portal hypertension	K76.6	3	1	1	2	2	3	7	2	14	12	31	24	28	23	28	24	13	12
Cholelithiasis	K80	4	21	8	30	24	318	102	820	251	1130	394	1218	566	1285	656	1019	707	1225
Acute and other chronic pancreatitis	K85, K86.1	2	4	2	5	34	36	98	64	230	109	218	122	208	155	154	151	109	184
Alcohol induced chronic pancreatitis	K86.0	0	0	1	0	6	0	28	6	54	14	50	12	26	11	12	3	1	1
Psoriasis	L40 excl. L40.5	10	13	7	7	27	30	41	47	96	87	125	100	105	85	70	67	57	75
Spontaneous abortion	O03	0	9	0	39	0	297	0	559	0	349	0	8	0	0	0	0	0	0
Excessive blood level of alcohol	R78.0	0	0	0	0	0	0	2	0	1	0	2	1	3	0	1	0	0	1
Toxic effect of alcohol	T51.0, T51.9	37	76	55	95	277	362	297	312	283	420	172	336	71	84	15	19	10	1
Pedestrian traffic accidents	V$5	54	38	40	10	68	18	55	21	43	9	41	16	24	18	22	18	19	36
Road traffic accidents - non pedestrian	V5	76	27	104	52	431	170	341	104	334	132	252	100	143	107	81	79	100	151
Water transport injuries	V90-V94	0	1	2	0	7	0	10	1	12	4	16	3	10	4	5	3	2	4
Fall injuries	W00-W19	1123	366	312	77	968	323	1042	424	1172	692	1337	1044	1376	1631	1540	2361	2421	8370
Occupational work/machine injuries	W24-W31, W45	95	31	131	20	522	110	522	123	474	117	318	91	205	53	83	15	26	12
Firearm injuries	W32-W34	3	1	5	0	20	2	13	1	11	0	5	0	2	0	0	0	0	0
Drowning	W65-W74	2	1	0	0	1	1	3	1	4	2	3	0	1	0	0	1	5	2
Inhalation and ingestion of food causing obstruction of res	W78-W79	4	3	0	3	9	2	12	6	10	9	17	9	20	14	17	6	27	34
Fire injuries	X00-X09	13	1	9	2	18	9	29	9	28	14	29	11	28	14	11	12	17	24
Accidental excessive cold	X31	2	2	1	2	2	0	4	0	3	3	3	2	6	2	5	3	13	15
Accidental poisoning by and exposure to noxious substanc	X40-X49 excl. X45	23	41	20	27	130	79	165	77	111	100	63	86	51	58	51	64	55	99
Accidental poisoning by and exposure to alcohol	X45	0	0	0	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0
Intentional self-harm\Event of undetermined intent	X60-X84, Y10-Y34, Y87.0, Y87.	79	150	110	325	638	954	750	796	660	920	366	540	160	204	79	100	31	64
Intentional self poisoning by, and exposure to alcohol	X65	0	1	0	0	1	1	2	2	1	0	0	0	1	0	1	0	0	0
Assault	X85-Y09, Y87.1	245	53	350	34	1507	155	1230	134	776	134	401	72	144	18	42	9	13	19
Poisoning by and exposure to alcohol, undetermined inter	Y15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Evidence of alcohol involvement determined by blood alc	Y90	0	0	0	0	0	0	0	0	3	1	1	0	2	0	0	0	0	1
Evidence of alcohol involvement determined by level into	Y91	1	2	2	2	29	14	13	4	30	9	26	12	25	4	18	1	6	3

Table A4.1: Number of person-specific hospital admissions attributable to alcohol (source: ISD Scotland)

Conditions	ICD-10 codes	16 – 24 yrs		25 – 34 yrs		35 – 44 yrs		45 – 54 yrs		55 – 64 yrs		65 – 74 yrs		75 + yrs	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cancer of the lip oral cavity and pharynx	C00-C06, C09-10, C12-14	0.52	0.58	0.51	0.55	0.55	0.54	0.55	0.55	0.54	0.47	0.48	0.37	0.41	0.27
Oesophageal cancer	C15	0.32	0.34	0.31	0.31	0.33	0.31	0.33	0.31	0.33	0.26	0.29	0.21	0.24	0.15
Colorectal cancer	C18-C20	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.03	0.04	0.02
Cancer of the liver and intrahepatic bile ducts	C22	0.17	0.18	0.17	0.17	0.18	0.16	0.18	0.17	0.17	0.14	0.15	0.11	0.12	0.08
Laryngeal cancer	C32	0.34	0.36	0.33	0.33	0.35	0.33	0.35	0.33	0.35	0.28	0.31	0.22	0.26	0.16
Breast cancer	C50	n/a	0.24	n/a	0.22	n/a	0.21	n/a	0.22	n/a	0.18	n/a	0.14	n/a	0.1
Alcohol induced pseudo Cushing's Syndrome	E24.4	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Wernicke's encephalopathy	E51.2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mental and behavioural disorders due to use of alcohol	F10	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Degeneration of nervous system due to alcohol	G31.2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Epilepsy and Status epilepticus	G40-G41	0.55	0.65	0.55	0.62	0.58	0.6	0.57	0.61	0.56	0.53	0.51	0.4	0.41	0.27
Alcoholic polyneuropathy	G62.1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Alcoholic myopathy	G72.1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hypertensive diseases	I10-I15	0.35	0.37	0.34	0.34	0.36	0.33	0.36	0.34	0.35	0.28	0.31	0.23	0.26	0.16
Coronary heart disease	I20-25	-0.16	-0.09	-0.17	-0.1	-0.16	-0.1	-0.16	-0.1	-0.16	-0.09	-0.16	-0.08	-0.14	-0.06
Alcoholic cardiomyopathy	I42.6	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cardiac arrhythmias	I47, I48	0.36	0.38	0.37	0.37	0.37	0.36	0.37	0.37	0.37	0.32	0.34	0.27	0.29	0.2
Haemorrhagic stroke	I60-I62	0.28	0.3	0.25	0.26	0.28	0.25	0.28	0.26	0.28	0.2	0.23	0.14	0.18	0.09
Ischaemic stroke	I63-I66	0.08	0.09	0.04	0.05	0.08	0.04	0.08	0.06	0.08	0.01	0.03	-0.01	0.01	-0.02
Oesophageal varices	I85, I98.2	0.75	0.77	0.73	0.74	0.76	0.73	0.76	0.74	75	0.67	0.71	0.59	0.64	0.47
Mallory-Weiss syndrome	K22.6	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
Alcoholic gastritis	K29.2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Alcoholic liver disease	K70	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Unspecified liver disease	K73, K74.0-2, K76.0, K76.9	0.75	0.77	0.73	0.74	0.76	0.73	0.76	0.74	0.75	0.67	0.71	0.59	0.64	0.47
Portal hypertension	K76.6	0.75	0.77	0.73	0.74	0.76	0.73	0.76	0.74	0.75	0.67	0.71	0.59	0.64	0.47
Cholelithiasis	K80	-0.25	-0.26	-0.25	-0.24	-0.26	-0.23	-0.26	-0.24	-0.25	-0.19	-0.22	-0.14	-0.17	-0.1
Acute and other chronic pancreatitis	K85, K86.1	0.29	0.31	0.28	0.28	0.3	0.27	0.3	0.28	0.29	0.23	0.26	0.18	0.21	0.13
Alcohol induced chronic pancreatitis	K86.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Psoriasis	L40 excl. L40.5	0.36	0.35	0.36	0.34	0.37	0.34	0.37	0.34	0.36	0.31	0.34	0.27	0.3	0.21
Spontaneous abortion	O03	n/a	0.24	n/a	0.23	n/a	0.22	n/a	0.22	n/a	0.19	n/a	0.14	n/a	0.1
Excessive blood level of alcohol	R78.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Toxic effect of alcohol	T51.0, T51.9	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pedestrian traffic accidents	V$$	0.46	0.18	0.5	0.25	0.5	0.25	0.27	0.21	0.27	0.21	0.22	0.15	0.22	0.15
Road traffic accidents - non pedestrian	V$	0.46	0.18	0.5	0.25	0.5	0.25	0.27	0.21	0.27	0.21	0.22	0.15	0.22	0.15
Water transport injuries	V90-V94	0.38	0.31	0.38	0.31	0.38	0.31	0.32	0.26	0.32	0.26	0.32	0.26	0.32	0.26
Fall injuries	W00-W19	0.22	0.14	0.22	0.14	0.22	0.22	0.14	0.22	0.22	0.14	0.12	0.04	0.12	0.04
Occupational work/machine injuries	W24-W31, W45	0.38	0.31	0.38	0.31	0.38	0.31	0.32	0.26	0.32	0.26	0.32	0.26	0.32	0.26
Firearm injuries	W32-W34	0.38	0.31	0.38	0.31	0.38	0.31	0.32	0.26	0.32	0.26	0.32	0.26	0.32	0.26
Drowning	W65-W74	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Inhalation and ingestion of food causing obstruction of respiratc	W78-W79	0.38	0.31	0.38	0.31	0.38	0.31	0.32	0.26	0.32	0.26	0.32	0.26	0.32	0.26
Fire injuries	X00-X09	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Accidental excessive cold	X31	0.38	0.31	0.38	0.31	0.38	0.31	0.32	0.26	0.32	0.26	0.32	0.26	0.32	0.26
Accidental poisoning by and exposure to noxious substances	X40-X49 excl. X45	0.38	0.31	0.22	0.21	0.22	0.21	0.22	0.21	0.22	0.21	0.22	0.21	0.12	0.1
Accidental poisoning by and exposure to alcohol	X45	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Intentional self-harm|Event of undetermined intent	X60-X84, Y10-Y34, Y87.0, Y87.2,	0.21	0.14	0.21	0.14	0.21	0.14	0.16	0.12	0.16	0.12	0.16	0.12	0.07	0.07
Intentional self poisoning by, and exposure to alcohol	X65	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Assault	X85-Y09, Y87.1	0.19	0.19	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Poisoning by and exposure to alcohol, undetermined intent	Y15	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Evidence of alcohol involvement determined by blood alcohol l	Y90	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Evidence of alcohol involvement determined by level intoxicati	Y91	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table A4.2: Alcohol-attributable fractions in Scotland– reproduction of Grant et al (2009)

Appendix 5: Risk functions for health conditions

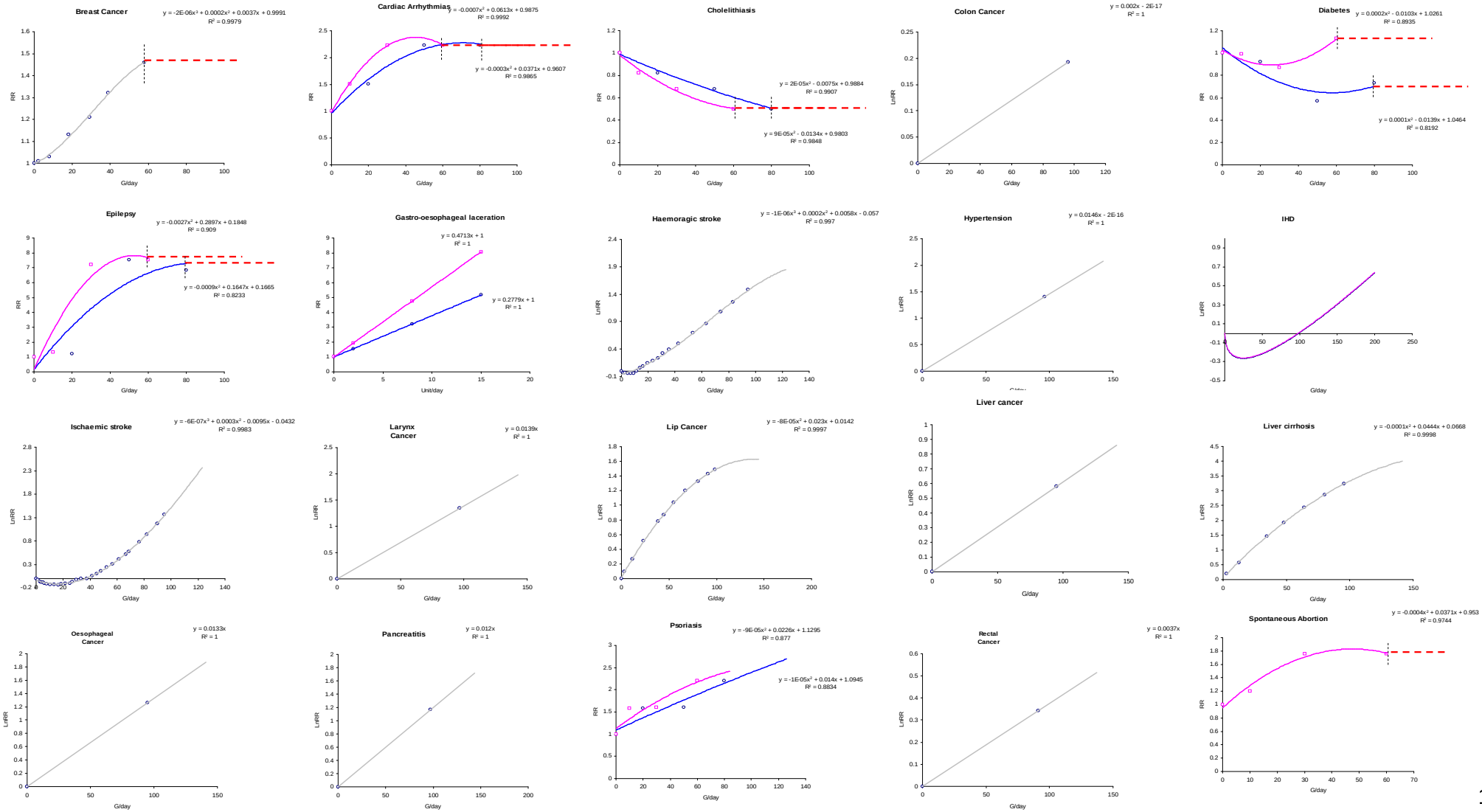
Conditions		11 – 15 years		16 - 17 years		18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years		55 - 64 years		65 - 74 years		75 + years	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Alcohol induced pseudo Cushing's Syndrome	constant																		
	Slope																		
Wernicke's encephalopathy	constant																		
	Slope																		
Mental and behavioural disorders due to use	constant					6.2E-08		6.4E-07	6.8E-07	2.2E-06	3.2E-06	7.5E-06	8.8E-06	1.7E-05	1.7E-05	3.1E-05	6.2E-05	1.9E-05	3.2E-05
	Slope					6.3E-07		6.1E-06	4.1E-06	1.8E-05	1.5E-05	5.1E-05	3.6E-05	1.1E-04	5.7E-05	1.3E-04	1.4E-04	6.6E-05	6.0E-05
Degeneration of nervous system due to alcol	constant											4.6E-07							
	Slope											2.1E-06							
Alcoholic polyneuropathy	constant																		
	Slope																		
Alcoholic myopathy	constant																		
	Slope																		
Alcoholic cardiomyopathy	constant										1.3E-06	2.2E-06		1.4E-06	2.5E-06	1.2E-06		2.6E-06	
	Slope										4.6E-06	1.1E-05		7.2E-06	7.6E-06	5.1E-06		1.1E-05	
Alcoholic gastritis	constant											9.0E-07	2.1E-06	9.7E-07					
	Slope											4.2E-06	7.2E-06	4.8E-06					
Alcoholic liver disease	constant					7.5E-07	1.5E-06	1.6E-05	1.4E-05	4.3E-05	6.0E-05	8.0E-05	1.1E-04	1.0E-04	2.1E-04	1.3E-04	2.4E-04	6.7E-05	1.5E-04
	Slope					3.2E-06	5.2E-06	6.5E-05	4.4E-05	2.1E-04	2.1E-04	3.8E-04	3.7E-04	5.0E-04	6.3E-04	5.6E-04	7.6E-04	2.9E-04	4.1E-04
Alcohol induced chronic pancreatitis	constant									4.7E-07		1.3E-06	1.1E-06	4.9E-07				2.6E-06	
	Slope									2.2E-06		6.3E-06	3.6E-06	2.4E-06				1.1E-05	
Excessive blood level of alcohol	constant																		
	Slope																		
Toxic effect of alcohol	constant																		
	Slope																		
Accidental poisoning by and exposure to alc	constant																		
	Slope																		
Intentional self poisoning by, and exposure t	constant																		
	Slope																		
Poisoning by and exposure to alcohol, undet	constant																		
	Slope																		
Evidence of alcohol involvement determine	constant																		
	Slope																		
Evidence of alcohol involvement determine	constant																		
	Slope																		

Table A5.1: Constant and slope of the linear absolute risk function for mortality for wholly attributable conditions

Conditions		11 – 15 years		16 - 17 years		18 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years		55 - 64 years		65 - 74 years		75 + years	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Alcohol induced pseudo Cushing's Syndrome	constant										1.3E-06								
	Slope										4.6E-06								
Wernicke's encephalopathy	constant							1.5E-06		4.7E-07	1.3E-06	1.8E-06	1.1E-06	1.9E-06	5.0E-06	5.8E-06	6.4E-06		
	Slope							6.2E-06		2.2E-06	4.6E-06	8.4E-06	3.6E-06	9.6E-06	1.5E-05	2.6E-05	2.0E-05		
Mental and behavioural disorders due to use of alcc	constant	7.8E-05	8.2E-05	8.5E-05	7.4E-05	3.0E-05	2.4E-05	4.5E-05	4.2E-05	1.0E-04	1.1E-04	1.9E-04	1.9E-04	2.9E-04	3.6E-04	7.3E-04	5.7E-03	1.3E-03	2.1E-03
	Slope	5.1E-04	4.6E-04	7.1E-04	6.1E-04	3.3E-04	2.0E-04	4.3E-04	2.5E-04	8.6E-04	5.0E-04	1.3E-03	8.0E-04	1.8E-03	1.2E-03	3.2E-03	1.0E-14	4.4E-03	3.9E-03
Degeneration of nervous system due to alcohol	constant								1.8E-06	1.4E-06		1.3E-06	2.1E-06	3.4E-06	2.5E-06	2.3E-06			2.4E-05
	Slope								5.5E-06	6.7E-06		6.3E-06	7.2E-06	1.7E-05	7.6E-06	1.0E-05			6.8E-05
Alcoholic polyneuropathy	constant									9.3E-07	1.3E-06	1.3E-06	2.1E-06		2.5E-06			2.6E-06	
	Slope									4.5E-06	4.6E-06	6.3E-06	7.2E-06		7.6E-06			1.1E-05	
Alcoholic myopathy	constant											4.6E-07		4.9E-07		3.5E-06			
	Slope											2.1E-06		2.4E-06		1.5E-05			
Alcoholic cardiomyopathy	constant							1.5E-06		1.4E-06		3.1E-06		3.8E-06	7.5E-06	7.0E-06	1.3E-05	1.3E-05	
	Slope							6.2E-06		6.7E-06		1.5E-05		1.9E-05	2.3E-05	3.1E-05	4.1E-05	5.6E-05	
Alcoholic gastritis	constant	2.8E-06		2.5E-05	1.5E-05	2.5E-05	1.8E-05	4.0E-05	2.7E-05	3.3E-05	2.0E+00	3.7E-05	1.8E-05	2.5E-05	3.3E-05	1.4E-05	1.9E-05	1.3E-05	1.2E-04
	Slope	1.7E-05		1.3E-04	4.5E-05	1.1E-04	6.3E-05	1.6E-04	8.3E-05	1.6E-04	1.0E-04	1.8E-04	6.1E-05	1.2E-04	9.9E-05	6.1E-05	6.1E-05	5.6E-05	3.4E-04
Alcoholic liver disease	constant					6.7E-06	3.0E-06	4.9E-05	7.7E-05	1.4E-04	2.2E-04	2.6E-04	3.2E-04	3.0E-04	7.1E-04	4.0E-04	9.0E-04	2.6E-04	1.0E-03
	Slope					2.9E-05	1.0E-05	2.0E-04	2.4E-04	6.9E-04	7.6E-04	1.2E-03	1.1E-03	1.5E-03	2.2E-03	1.8E-03	2.9E-03	1.1E-03	2.8E-03
Alcohol induced chronic pancreatitis	constant			6.3E-06		4.5E-06		2.1E-05	1.1E-05	2.5E-05	1.8E-05	2.2E-05	1.3E-05	1.2E-05	2.8E-05	1.4E-05	1.9E-05	2.6E-06	2.4E-05
	Slope			3.3E-05		1.9E-05		8.7E-05	3.3E-05	1.2E-04	6.4E-05	1.1E-04	4.3E-05	6.2E-05	8.4E-05	6.1E-05	6.1E-05	1.1E-05	6.8E-05
Excessive blood level of alcohol	constant							1.3E-07		8.1E-08		2.4E-07	3.3E-07	5.8E-07		8.1E-07			1.6E-05
	Slope							1.2E-06		6.2E-07		1.6E-06	1.3E-06	3.6E-06		3.5E-06			3.0E-05
Toxic effect of alcohol	constant	1.8E-05	4.2E-05	3.8E-05	7.9E-05	1.6E-05	4.2E-05	1.9E-05	5.3E-05	2.1E-05	9.5E-05	2.0E-05	1.1E-04	1.3E-05	6.9E-05	1.2E-05	6.9E-05	3.1E-05	1.6E-05
	Slope	1.2E-04	2.3E-04	3.2E-04	6.5E-04	1.7E-04	3.5E-04	1.8E-04	3.2E-04	1.8E-04	4.5E-04	1.4E-04	4.5E-04	8.4E-05	2.3E-04	5.3E-05	1.5E-04	1.1E-04	3.0E-05
Accidental poisoning by and exposure to alcohol	constant					1.2E-07		1.3E-07		8.1E-08		1.3E-07							
	Slope					1.3E-06		1.2E-06		6.2E-07		8.1E-07							
Intentional self poisoning by, and exposure to alcol	constant		5.6E-07			6.2E-08	1.2E-07	1.3E-07	3.5E-07	8.1E-08				2.0E-07		8.1E-07			
	Slope		3.1E-06			6.3E-07	9.8E-07	1.2E-06	2.0E-06	6.2E-07				1.2E-06		3.5E-06			
Poisoning by and exposure to alcohol, undetermine	constant																		
	Slope																		
Evidence of alcohol involvement determined by blc	constant									2.3E-07	2.3E-07	1.3E-07		3.9E-07					1.6E-05
	Slope									1.9E-06	1.1E-06	8.1E-07		2.4E-06					3.0E-05
Evidence of alcohol involvement determined by lev	constant	4.9E-07	1.1E-06	1.4E-06	1.7E-06	1.7E-06	1.6E-06	8.3E-07	6.8E-07	2.3E-06	2.0E-06	3.1E-06	3.9E-06	4.8E-06	3.3E-06	1.5E-05	3.7E-06	1.9E-05	4.8E-05
	Slope	3.1E-06	6.1E-06	1.1E-05	1.4E-05	1.8E-05	1.4E-05	8.0E-06	4.1E-06	1.9E-05	9.7E-06	2.1E-05	1.6E-05	3.0E-05	1.1E-05	6.3E-05	8.1E-06	6.6E-05	9.0E-05

Table A5.2: Constant and slope of the linear absolute risk function for morbidity for wholly attributable conditions

Diagram A5.1: Relative risk functions for chronic conditions partially attributable to alcohol



	16 - 24 years		25 - 34 years		35 - 44 years		45 - 54 years		55 - 64 years		65 - 74 years		75 + years	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Pedestrian traffic accidents	0.16012	0.05718	0.19363	0.11045	0.23635	0.15302	0.10972	0.25365	0.13842	0.25365	0.21977	0.42832	0.48294	1.65411
Road traffic accidents - non pedestrian	0.16012	0.05718	0.19363	0.11045	0.23635	0.15302	0.10972	0.25365	0.13842	0.25365	0.21977	0.42832	0.48294	1.65411
Water transport injuries	0.11527	0.11688	0.11905	0.14832	0.14492	0.20646	0.13898	0.18634	0.17650	0.33619	0.36544	0.84864	0.80100	3.29180
Fall injuries	0.05295	0.04235	0.05462	0.05405	0.06676	0.12933	0.04810	0.14931	0.10588	0.15550	0.10588	0.10283	0.23294	0.38221
Occupational work/machine injuries	0.11527	0.11688	0.11905	0.14832	0.14492	0.20646	0.13898	0.18634	0.17650	0.33619	0.36544	0.84864	0.80100	3.29180
Firearm injuries	0.11527	0.11688	0.11905	0.14832	0.14492	0.20646	0.13898	0.18634	0.17650	0.33619	0.36544	0.84864	0.80100	3.29180
Drowning	0.02797	0.03888	0.02883	0.04986	0.03562	0.06882	0.04417	0.07914	0.05617	0.14284	0.11603	0.36125	0.25408	1.39654
Inhalation and ingestion of food causing obstruction of respiratory tract	0.11527	0.11688	0.11905	0.14832	0.14492	0.20646	0.13898	0.18634	0.17650	0.33619	0.36544	0.84864	0.80100	3.29180
Fire injuries	0.10576	0.14635	0.10900	0.18608	0.13323	0.25831	0.16592	0.29847	0.21118	0.53756	0.43724	1.35886	0.95938	5.28835
Accidental excessive cold	0.11527	0.11688	0.11905	0.14832	0.14492	0.20646	0.13898	0.18634	0.17650	0.33619	0.36544	0.84864	0.80100	3.29180
Accidental poisoning by and exposure to noxious substances	0.11527	0.11688	0.11905	0.14832	0.14492	0.20646	0.13898	0.18634	0.17650	0.33619	0.36544	0.84864	0.80100	3.29180
Intentional self-harm/Event of undetermined intent	0.04993	0.04235	0.05145	0.05405	0.06298	0.07489	0.05629	0.07224	0.07149	0.13050	0.14837	0.32972	0.12858	0.70606
Assault	0.04405	0.06107	0.10900	0.18608	0.13323	0.25831	0.16592	0.29847	0.21118	0.53756	0.43724	1.35886	0.95938	5.28835

Table A5.3: Slope of the linear function for acute conditions partially attributable to alcohol

Appendix 6: Morbidity cost to healthcare services

Conditions	ICD-10 codes	Multiplier	Hospital outpatient	A&E consultations	Ambulance services	Practice nurse consultations	NHS GP consultations	Social services	Treatment services	Total cost per person-specific hospitalisation
Cancer of the lip oral cavity and pharynx	C00-C06, C09-10, C12-14	2.54	£4,924	£1,437	£762	£476	£319	£30	£407	£8,355
Oesophageal cancer	C15	2.43	£2,964	£1,373	£727	£454	£229	£21	£389	£6,158
Colorectal cancer	C18-C20	3.77	£4,324	£2,130	£1,129	£705	£355	£33	£603	£9,280
Cancer of the liver and intrahepatic bile ducts	C22	2.19	£3,428	£1,239	£656	£410	£207	£19	£351	£6,310
Laryngeal cancer	C32	1.65	£3,769	£932	£494	£308	£155	£15	£264	£5,937
Breast cancer	C50	1.77	£2,172	£998	£529	£330	£166	£16	£283	£4,494
Alcohol induced pseudo Cushing's Syndrome	E24.4	2.04	£4,885	£920	£0	£0	£0	£0	£0	£5,805
Wernicke's encephalopathy	E51.2	3.50	£8,325	£1,977	£2,095	£654	£439	£41	£3,359	£16,890
Mental and behavioural disorders due to use of alcohol	F10	1.05	£1,422	£473	£1,882	£979	£164	£15	£1,006	£5,942
Degeneration of nervous system due to alcohol	G31.2	3.50	£8,325	£1,977	£2,095	£654	£439	£41	£3,359	£16,890
Epilepsy and Status epilepticus	G40-G41	1.71	£2,612	£773	£2,561	£1,600	£269	£25	£0	£7,840
Alcoholic polyneuropathy	G62.1	2.26	£5,101	£1,532	£1,353	£422	£284	£27	£1,808	£10,526
Alcoholic myopathy	G72.1	2.71	£6,497	£1,834	£1,619	£506	£340	£32	£2,164	£12,991
Hypertensive diseases	I10-I15	2.20	£3,819	£744	£0	£0	£413	£39	£0	£5,015
Coronary heart disease	I20-25	2.04	£2,054	£690	£1,828	£0	£0	£0		£4,572
Alcoholic cardiomyopathy	I42.6	1.86	£3,469	£1,261	£1,670	£1,043	£234	£22	£893	£8,592
Cardiac arrhythmias	I47, I48	1.58	£3,269	£712	£1,886	£1,178	£99	£9	£0	£7,153
Haemorrhagic stroke	I60-I62	1.10	£3,517	£498	£990	£619	£104	£10	£0	£5,738
Ischaemic stroke	I63-I66	2.04	£3,402	£920	£1,828	£1,142	£192	£18		£7,502
Oesophageal varices	I85, I98.2	2.65	£2,609	£599	£2,379	£1,486	£166	£16	£0	£7,254
Mallory-Weiss syndrome	K22.6	0.80	£839	£181	£720	£450	£25	£2	£0	£2,218
Alcoholic gastritis	K29.2	2.63	£2,896	£1,187	£4,718	£2,456	£330	£31	£841	£12,459
Alcoholic liver disease	K70	1.32	£2,538	£297	£788	£492	£83	£8	£421	£4,626
Unspecified liver disease	K73, K74.0-2, K76.0, K76.9	1.54	£2,646	£347	£921	£575	£97	£9	£0	£4,595
Portal hypertension	K76.6	1.54	£2,646	£347	£921	£575	£97	£9	£0	£4,595
Cholelithiasis	K80	2.04	£2,093	£230	£2,437	£0	£0	£0		£4,760
Acute and other chronic pancreatitis	K85, K86.1	1.26	£2,466	£568	£1,130	£706	£79	£7	£0	£4,956
Alcohol induced chronic pancreatitis	K86.0	4.64	£7,821	£2,619	£4,164	£2,601	£582	£54	£1,484	£19,324
Psoriasis	L40 excl. L40.5	2.31	£3,766	£782	£0	£0	£362	£34	£0	£4,944
Spontaneous abortion	O03	1.10	£657	£372	£1,641	£820	£138	£13	£0	£3,639
Excessive blood level of alcohol	R78.0	1.39	£576	£0	£2,494	£1,558	£0	£0	£0	£4,627
Toxic effect of alcohol	T51.0, T51.9	1.58	£663	£0	£2,844	£1,777	£0	£0	£0	£5,284
Pedestrian traffic accidents	V$$	4.95	£9,785	£1,119	£7,412	£4,630	£311	£29	£0	£23,285
Road traffic accidents - non pedestrian	V$	2.92	£5,004	£660	£5,243	£3,275	£183	£17	£0	£14,382
Water transport injuries	V90-V94	1.24	£2,294	£279	£1,851	£1,156	£39	£4	£0	£5,624
Fall injuries	W00-W19	0.82	£1,852	£92	£1,465	£763	£77	£7	£0	£4,255
Occupational work/machine injuries	W24-W31, W45	1.26	£2,162	£142	£1,887	£943	£119	£11	£0	£5,264
Firearm injuries	W32-W34	1.16	£1,562	£131	£1,730	£1,080	£0	£0	£0	£4,502
Drowning	W65-W74	1.05	£1,220	£236	£939	£587	£33	£3	£0	£3,018
Inhalation and ingestion of food causing obstruction of re	W78-W79	0.79	£1,771	£178	£945	£591	£25	£2	£0	£3,513
Fire injuries	X00-X09	0.75	£1,274	£170	£1,125	£703	£24	£2	£0	£3,298
Accidental excessive cold	X31	0.91	£1,636	£103	£1,638	£1,023	£29	£3	£0	£4,432
Accidental poisoning by and exposure to noxious substan	X40-X49 excl. X45	0.51	£314	£0	£917	£572	£0	£0	£0	£1,803
Accidental poisoning by and exposure to alcohol	X45	0.51	£314	£0	£917	£572	£0	£0	£0	£1,803
Intentional self-harm\Event of undetermined intent	X60-X84, Y10-Y34, Y87.0, Y87.	1.22	£641	£137	£2,182	£1,136	£114	£11	£0	£4,222
Intentional self poisoning by, and exposure to alcohol	X65	1.39	£576	£0	£2,494	£1,558	£0	£0	£0	£4,627
Assault	X85-Y09, Y87.1	1.15	£1,252	£130	£2,067	£1,076	£36	£3	£0	£4,564
Poisoning by and exposure to alcohol, undetermined inte	Y15	1.39	£576	£0	£2,494	£1,558	£0	£0	£0	£4,627
Evidence of alcohol involvement determined by blood al	Y90	1.39	£0	£0	£2,494	£0	£0	£0	£0	£2,494
Evidence of alcohol involvement determined by level int	Y91	1.39	£0	£0	£2,494	£0	£0	£0	£0	£2,494

Table A6.1: Disease prevalence costs by health condition and service type

Appendix 7: Utilities

Conditions	11 - 15 years	16 – 17 years	18 - 24 years	25 - 34 years	35 - 44 years	45 - 54 years	55 - 64 years	65 - 74 years	75 +
Cancer of the lip oral cavity and pharynx	0.716	0.716	0.716	0.691	0.660	0.629	0.598	0.566	0.532
Oesophageal cancer	0.784	0.784	0.784	0.756	0.723	0.688	0.653	0.620	0.581
Colorectal cancer	0.841	0.841	0.841	0.812	0.775	0.737	0.702	0.664	0.625
Cancer of the liver and intrahepatic bile ducts	0.690	0.690	0.690	0.667	0.636	0.607	0.576	0.545	0.513
Laryngeal cancer	0.908	0.908	0.908	0.877	0.836	0.796	0.758	0.717	0.674
Breast cancer	0.840	0.840	0.840	0.811	0.774	0.736	0.701	0.664	0.624
Alcohol induced pseudo Cushing's Syndrome	0.608	0.608	0.608	0.587	0.560	0.534	0.507	0.480	0.451
Wernicke's encephalopathy	0.608	0.608	0.608	0.587	0.560	0.534	0.507	0.480	0.451
Mental and behavioural disorders due to use of alcohol	0.569	0.569	0.569	0.550	0.524	0.500	0.475	0.450	0.423
Degeneration of nervous system due to alcohol	0.608	0.608	0.608	0.587	0.560	0.534	0.507	0.480	0.451
Epilepsy and Status epilepticus	0.623	0.623	0.623	0.600	0.574	0.546	0.519	0.492	0.461
Alcoholic polyneuropathy	0.608	0.608	0.608	0.587	0.560	0.534	0.507	0.480	0.451
Alcoholic myopathy	0.651	0.651	0.651	0.629	0.600	0.571	0.544	0.515	0.484
Hypertensive diseases	0.769	0.769	0.769	0.743	0.709	0.675	0.642	0.608	0.572
Coronary heart disease	0.734	0.734	0.734	0.707	0.676	0.643	0.611	0.580	0.543
Alcoholic cardiomyopathy	0.651	0.651	0.651	0.629	0.600	0.571	0.544	0.515	0.484
Cardiac arrhythmias	0.795	0.795	0.795	0.768	0.733	0.699	0.664	0.628	0.591
Haemorrhagic stroke	0.750	0.750	0.750	0.724	0.691	0.657	0.626	0.592	0.557
Ischaemic stroke	0.643	0.643	0.643	0.620	0.593	0.564	0.535	0.508	0.476
Oesophageal varices	0.709	0.709	0.709	0.683	0.653	0.622	0.590	0.560	0.525
Mallory-Weiss syndrome	0.946	0.946	0.946	0.911	0.871	0.829	0.787	0.748	0.701
Alcoholic gastritis	0.543	0.543	0.543	0.524	0.500	0.476	0.453	0.429	0.403
Alcoholic liver disease	0.563	0.563	0.563	0.544	0.519	0.494	0.470	0.445	0.418
Unspecified liver disease	0.698	0.698	0.698	0.674	0.643	0.612	0.583	0.552	0.519
Portal hypertension	0.698	0.698	0.698	0.674	0.643	0.612	0.583	0.552	0.519
Cholelithiasis	0.844	0.844	0.844	0.813	0.777	0.740	0.702	0.667	0.625
Acute and other chronic pancreatitis	0.693	0.693	0.693	0.667	0.638	0.607	0.576	0.547	0.513
Alcohol induced chronic pancreatitis	0.509	0.509	0.509	0.491	0.469	0.447	0.424	0.403	0.377
Psoriasis	0.733	0.733	0.733	0.707	0.676	0.643	0.610	0.580	0.543
Spontaneous abortion	0.932	0.932	0.932	0.900	0.858	0.819	0.778	0.736	0.692
Excessive blood level of alcohol	0.434	0.434	0.434	0.418	0.400	0.381	0.361	0.343	0.322
Toxic effect of alcohol	0.445	0.445	0.445	0.430	0.410	0.391	0.371	0.352	0.331
Pedestrian traffic accidents	0.658	0.658	0.658	0.636	0.606	0.577	0.549	0.520	0.489
Road traffic accidents - non pedestrian	0.680	0.680	0.680	0.656	0.626	0.598	0.567	0.537	0.505
Water transport injuries	0.680	0.680	0.680	0.656	0.626	0.598	0.567	0.537	0.505
Fall injuries	0.710	0.710	0.710	0.686	0.655	0.623	0.593	0.561	0.528
Occupational work/machine injuries	0.888	0.888	0.888	0.858	0.818	0.781	0.741	0.701	0.660
Firearm injuries	0.658	0.658	0.658	0.636	0.606	0.577	0.549	0.520	0.489
Drowning	0.658	0.658	0.658	0.636	0.606	0.577	0.549	0.520	0.489
Inhalation and ingestion of food causing obstruction of re	0.971	0.971	0.971	0.937	0.894	0.852	0.809	0.767	0.720
Fire injuries	0.658	0.658	0.658	0.636	0.606	0.577	0.549	0.520	0.489
Accidental excessive cold	0.658	0.658	0.658	0.636	0.606	0.577	0.549	0.520	0.489
Accidental poisoning by and exposure to noxious substan	0.541	0.541	0.541	0.523	0.499	0.474	0.452	0.428	0.402
Accidental poisoning by and exposure to alcohol	0.639	0.639	0.639	0.617	0.588	0.562	0.533	0.505	0.474
Intentional self-harm\Event of undetermined intent	0.464	0.464	0.464	0.447	0.428	0.407	0.386	0.367	0.344
Intentional self poisoning by, and exposure to alcohol	0.400	0.400	0.400	0.387	0.369	0.352	0.334	0.316	0.297
Assault	0.705	0.705	0.705	0.679	0.650	0.618	0.587	0.557	0.522
Poisoning by and exposure to alcohol, undetermined inte	0.434	0.434	0.434	0.418	0.400	0.381	0.361	0.343	0.322
Evidence of alcohol involvement determined by blood al	0.971	0.971	0.971	0.937	0.894	0.852	0.809	0.767	0.720
Evidence of alcohol involvement determined by level int	0.971	0.971	0.971	0.937	0.894	0.852	0.809	0.767	0.720
General population	0.971	0.971	0.971	0.937	0.894	0.852	0.809	0.767	0.720

Table A7.1: Utilities by health condition and age group

Appendix 8: Summary of Scotland recorded crime volumes and multipliers used

Crime category	Police recorded volumes (2007/8)	Multipler	Total volumes
Serious assault, other non-sexual crimes of violence	6,398	1.8	11,516
Robbery	3,064	3.7	11,337
Total sexual offences	6,552	5.2	34,070
Housebreaking - Domestic dwelling	12,437	2.2	27,361
Housebreaking - Domestic non-dwelling & other	13,006	2.1	27,313
Theft from a motor vehicle	6,727	2.8	18,836
Theft of a motor vehicle	12,105	1.2	14,526
Shoplifting	29,186	100.0	2,918,600
Other theft	57,918	2.7	156,379
Fire-raising	4,616	4.3	19,849
Vandalism etc	109,855	4.3	472,377
Minor assault	72,770	7.7	560,329

Table A8.1: Crime volumes – police recorded and estimated total

Appendix 9: Estimated number of offences per age group

Conditions	11 – 15 yrs		16 – 17 yrs		18 – 24 yrs		25 – 34 yrs		35 – 44 yrs		45 – 54 yrs		55 – 64 yrs		65 – 74 yrs		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Serious assault, other non-sexual crimes of violence	2,061	788	1,051	175	3,677	613	2,061	364	303	61	167	33	91	18	45	9	9,456	2,061
Robbery	2,939	840	1,213	93	4,245	327	1,680	0	0	0	0	0	0	0	0	0	10,077	1,260
Total sexual offences	8,518	0	2,524	0	8,833	0	8,518	0	2,839	0	1,562	0	852	0	426	0	34,070	0
Housebreaking - Domestic dwelling	7,044	813	2,709	181	9,482	632	5,689	271	271	0	149	0	81	0	41	0	25,465	1,896
Housebreaking - Domestic non-dwelling & other	7,031	811	2,704	180	9,465	631	5,679	270	270	0	149	0	81	0	41	0	25,420	1,893
Theft from a motor vehicle	2,997	1,924	1,332	510	4,663	1,784	3,552	1,184	333	111	183	61	100	33	50	17	13,211	5,625
Theft of a motor vehicle	2,312	1,484	1,027	393	3,596	1,376	2,740	913	257	86	141	47	77	26	39	13	10,188	4,338
Shoplifting	464,453	298,167	206,424	79,002	722,483	276,506	550,463	183,488	51,606	17,202	28,383	9,461	15,482	5,161	7,741	2,580	2,047,034	871,566
Other theft	24,885	15,976	11,060	4,233	38,711	14,815	29,494	9,831	2,765	922	1,521	507	830	277	415	138	109,680	46,699
Fire-raising	5,789	1,241	1,746	184	6,111	643	2,895	414	414	0	227	0	124	0	62	0	17,368	2,481
Vandalism etc	137,776	29,524	41,552	4,374	145,431	15,308	68,888	9,841	9,841	0	5,413	0	2,952	0	1,476	0	413,329	59,047
Minor assault	100,269	38,338	51,118	8,520	178,912	29,819	100,269	17,695	14,746	2,949	8,110	1,622	4,424	885	2,212	442	460,060	100,269

Table A9.1: Raw crime volumes per annum, by offence category, gender and age group

Appendix 10: Slope of the linear function used for crime

Offences	AAF used	Male		Female	
		Under 16 years old	16 years and over	Under 16 years old	16 years and over
Serious assault, other non-sexual crimes of violence	Assault with injury	0.015662	0.035967	0.034303	0.044505
Robbery	Other thefts	0.003230	0.006991	0.010674	0.005984
Total sexual offences	All violent offences	0.008909	0.037837	0.024096	0.041621
Housebreaking - Domestic dwelling	Other thefts	0.003230	0.006991	0.010674	0.005984
Housebreaking - Domestic non-dwelling & other	Other thefts	0.003230	0.006991	0.010674	0.005984
Theft from a motor vehicle	Vehicle related thefts	0.000000	0.013536	0.180450	0.161852
Theft of a motor vehicle	Vehicle related thefts	0.000000	0.013536	0.180450	0.161852
Shoplifting	Other thefts	0.003230	0.006991	0.010674	0.005984
Other theft	Other thefts	0.003230	0.006991	0.010674	0.005984
Fire-raising	Criminal damage	0.019627	0.125025	0.066327	0.115385
Vandalism etc	Criminal damage	0.019627	0.125025	0.066327	0.115385
Minor assault	Assault without injury	0.004059	0.040013	0.013908	0.038317

Table A10.1: Slope of relative risk functions, split by offence category and OCJS gender and age sub-groups

Appendix 11: Unit costs of crime categories used in the model

Conditions	Defensive expenditure	Insurance administration	Physical and emotional impact on direct victims	Value of property stolen	Property damaged /destroyed	Property recovered	Victim services	Lost output	Health services	Criminal Justice System	Average cost (£)
Serious assault, other non-sexual crimes of violence	1	1	0	0	0	0	7	1,166	1,348	14,345	16,868
Robbery	0	21	0	109	12	-19	16	1,011	483	2,601	4,234
Total sexual offences	3	5	0	0	0	0	32	4,430	916	3,298	8,684
Housebreaking - Domestic dwelling	221	177	646	846	187	-22	11	64	0	1,137	3,267
Housebreaking - Domestic non-dwelling & other	900	50	20	1,200	0	0	0	40	0	490	2,700
Theft from a motor vehicle	116	50	266	240	126	-11	1	20	0	50	858
Theft of a motor vehicle	546	370	800	2,367	349	-542	1	47	0	199	4,137
Shoplifting	30	0	0	50	0	0	0	0	0	20	100
Other theft	0	33	118	175	17	-13	1	3	0	301	635
Fire-raising	13	36	472	0	212	0	2	6	0	126	867
Vandalism etc	13	36	472	0	212	0	2	6	0	126	867
Minor assault	0	0	0	0	0	0	6	269	123	255	653

Table A11.1: Crime costs by crime category and cost type (derived from Dubourg et al, 2005, and Brand and Price, 2000)

Appendix 12: Slope for the risk functions for absenteeism and unemployment

Age (years)	Absenteeism		Unemployment	
	Male	Female	Male	Female
16 – 17	0.047489	0.069660	0.005600	0.004544
18 – 24	0.026321	0.027360	0.024623	0.018518
25 – 34	0.029350	0.024192	0.088192	0.049032
35 – 44	0.021678	0.019488	0.069561	0.042647
45 – 54	0.019085	0.012109	0.055196	0.057247
55 – 64	0.013329	0.001383	0.014961	0.016408

Table A12.1: Slope of relative risk functions for absenteeism and unemployment, split by gender and age group

Appendix 13: Alternative elasticity matrices used in the moderate versus heavy drinkers sensitivity analysis

CONSUMPTION →			OFF								ON							
			BEER/CIDER		WINE		SPIRIT		RTD		BEER/CIDER		WINE		SPIRIT		RTD	
PRICE ↓			LOW	HI	LOW	HI	LOW	HI	LOW	HI	LOW	HI	LOW	HI	LOW	HI	LOW	HI
OFF	BEER/ CIDER	LOW	-0.4030	0.0061	0.0029	0.0075	0.0008	0.0043	0.0006	0.0036	0.0066	0.0157	0.0011	0.0003	0.0083	0.0040	0.0010	0.0042
		HI	0.0014	-0.4378	0.0022	0.0095	0.0006	0.0052	0.0005	0.0026	0.0080	0.0215	0.0009	0.0013	0.0101	0.0055	0.0012	0.0048
	WINE	LOW	0.0020	0.0106	-0.4346	0.0034	0.0008	0.0034	0.0002	0.0019	0.0069	0.0140	0.0002	-0.0002	0.0067	0.0033	0.0003	0.0037
		HI	0.0014	0.0097	0.0010	-0.4729	0.0007	0.0037	0.0005	0.0015	0.0069	0.0176	0.0001	0.0012	0.0073	0.0042	0.0008	0.0044
	SPIRIT	LOW	0.0002	0.0147	0.0027	0.0121	-0.5140	0.0030	0.0003	0.0008	0.0068	0.0176	-0.0008	-0.0009	0.0059	0.0029	0.0008	0.0031
		HI	0.0022	0.0083	0.0013	0.0082	0.0005	-0.5237	0.0002	0.0017	0.0068	0.0200	0.0009	-0.0003	0.0067	0.0035	0.0008	0.0034
	RTD	LOW	0.0010	0.0276	-0.0003	0.0007	0.0003	0.0039	-0.3234	0.0006	0.0085	0.0129	0.0016	-0.0016	-0.0422	0.0030	0.0010	0.0032
		HI	0.0013	0.0119	0.0001	0.0067	0.0013	0.0025	0.0002	-0.3433	0.0068	0.0090	0.0001	0.0019	0.0084	0.0045	0.0011	0.0035
ON	BEER/ CIDER	LOW	0.0019	0.0101	0.0033	0.0078	0.0009	0.0053	0.0006	0.0022	-0.4017	0.0322	0.0016	0.0015	0.0101	0.0076	0.0025	0.0063
		HI	0.0023	0.0128	0.0019	0.0100	0.0007	0.0052	0.0005	0.0025	0.0126	-0.4211	0.0017	-0.0002	0.0193	0.0104	0.0014	0.0064
	WINE	LOW	0.0005	0.0027	0.0006	0.0033	0.0004	0.0032	0.0000	0.0004	0.0104	0.0224	-0.2614	0.0012	0.0078	0.0037	0.0012	0.0028
		HI	0.0006	0.0051	0.0009	0.0055	0.0004	0.0037	0.0004	0.0007	0.0057	0.0061	0.0002	-0.2799	0.0025	0.0053	0.0013	0.0045
	SPIRIT	LOW	0.0004	0.0017	0.0014	0.0051	0.0003	0.0001	0.0015	0.0012	-0.0069	-0.0117	-0.0005	0.0004	-1.0965	0.0046	-0.0022	-0.0048
		HI	0.0006	0.0021	0.0007	0.0018	0.0002	-0.0002	0.0000	0.0002	-0.0001	-0.0111	-0.0030	-0.0068	0.0013	-0.1559	0.0013	-0.0007
	RTD	LOW	0.0006	0.0030	0.0000	-0.0008	0.0004	0.0006	-0.0001	0.0010	0.0075	-0.0021	0.0011	0.0050	0.0136	-0.0086	-0.3477	0.0067
		HI	0.0005	0.0025	-0.0005	0.0023	0.0003	0.0034	0.0001	0.0007	0.0064	0.0030	0.0004	0.0048	0.0010	-0.0051	0.0013	-0.3356

Table A13.1: Elasticity matrix for moderate drinkers – moderate versus heavy drinkers (based on Chisholm et al, 2004)

CONSUMPTION →			OFF								ON							
			BEER/CIDER		WINE		SPIRIT		RTD		BEER/CIDER		WINE		SPIRIT		RTD	
PRICE ↓			LOW	HI	LOW	HI	LOW	HI	LOW	HI	LOW	HI	LOW	HI	LOW	HI	LOW	HI
OFF	BEER/ CIDER	LOW	-0.2686	0.0041	0.0020	0.0050	0.0005	0.0028	0.0004	0.0024	0.0044	0.0105	0.0007	0.0002	0.0055	0.0026	0.0007	0.0028
		HI	0.0009	-0.2918	0.0015	0.0063	0.0004	0.0035	0.0003	0.0018	0.0053	0.0143	0.0006	0.0008	0.0067	0.0037	0.0008	0.0032
	WINE	LOW	0.0013	0.0071	-0.2897	0.0022	0.0006	0.0023	0.0001	0.0012	0.0046	0.0093	0.0001	-0.0002	0.0044	0.0022	0.0002	0.0025
		HI	0.0009	0.0065	0.0006	-0.3152	0.0005	0.0024	0.0003	0.0010	0.0046	0.0117	0.0001	0.0008	0.0048	0.0028	0.0006	0.0029
	SPIRIT	LOW	0.0001	0.0098	0.0018	0.0081	-0.3427	0.0020	0.0002	0.0006	0.0045	0.0118	-0.0005	-0.0006	0.0039	0.0020	0.0005	0.0021
		HI	0.0015	0.0055	0.0008	0.0054	0.0003	-0.3492	0.0001	0.0012	0.0045	0.0133	0.0006	-0.0002	0.0045	0.0023	0.0006	0.0023
	RTD	LOW	0.0006	0.0184	-0.0002	0.0005	0.0002	0.0026	-0.2156	0.0004	0.0056	0.0086	0.0011	-0.0011	-0.0281	0.0020	0.0006	0.0021
		HI	0.0009	0.0079	0.0001	0.0045	0.0008	0.0017	0.0001	-0.2289	0.0045	0.0060	0.0001	0.0013	0.0056	0.0030	0.0007	0.0023
ON	BEER/ CIDER	LOW	0.0013	0.0067	0.0022	0.0052	0.0006	0.0035	0.0004	0.0014	-0.2678	0.0215	0.0011	0.0010	0.0067	0.0050	0.0016	0.0042
		HI	0.0015	0.0085	0.0013	0.0066	0.0005	0.0034	0.0004	0.0016	0.0084	-0.2808	0.0012	-0.0001	0.0128	0.0069	0.0009	0.0042
	WINE	LOW	0.0003	0.0018	0.0004	0.0022	0.0003	0.0021	0.0000	0.0002	0.0069	0.0149	-0.1743	0.0008	0.0052	0.0024	0.0008	0.0019
		HI	0.0004	0.0034	0.0006	0.0037	0.0003	0.0025	0.0003	0.0005	0.0038	0.0041	0.0001	-0.1866	0.0017	0.0035	0.0009	0.0030
	SPIRIT	LOW	0.0003	0.0011	0.0009	0.0034	0.0002	0.0001	0.0010	0.0008	-0.0046	-0.0078	-0.0003	0.0002	-0.7310	0.0031	-0.0015	-0.0032
		HI	0.0004	0.0014	0.0005	0.0012	0.0001	-0.0001	0.0000	0.0001	-0.0001	-0.0074	-0.0020	-0.0045	0.0008	-0.1039	0.0008	-0.0005
	RTD	LOW	0.0004	0.0020	0.0000	-0.0006	0.0003	0.0004	0.0000	0.0006	0.0050	-0.0014	0.0008	0.0033	0.0090	-0.0058	-0.2318	0.0045
		HI	0.0003	0.0017	-0.0003	0.0016	0.0002	0.0023	0.0000	0.0005	0.0043	0.0020	0.0003	0.0032	0.0007	-0.0034	0.0009	-0.2238

Table A13.2: Elasticity matrix for hazardous and harmful drinkers – moderate versus heavy drinkers (based on Chisholm et al, 2004)

Appendix 14: Summary tables for moderate versus heavy drinkers sensitivity analysis

SUMMARY - TOTAL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.2%	-1.1	+0.2	-0.6	+0.0	-1.5	+7.0	+3.0	-0.4	+0.9	+10.5	+0.4%	+2.74	+2.13
2 Minimum price 30p	-0.5%	-2.3	+0.5	-2.0	+0.0	-3.8	+16.1	+6.3	-1.3	+2.0	+23.0	+0.9%	+6.01	+5.24
3 Minimum price 35p	-1.0%	-3.7	+0.3	-5.2	+0.0	-8.5	+32.6	+10.7	-3.1	+3.3	+43.4	+1.8%	+11.32	+11.42
4 Minimum price 40p	-2.0%	-5.4	-1.5	-9.7	+0.1	-16.5	+58.3	+16.3	-6.2	+5.0	+73.4	+3.0%	+19.14	+21.84
5 Minimum price 45p	-3.4%	-7.6	-4.3	-15.4	+0.1	-27.3	+90.4	+22.6	-10.4	+7.0	+109.6	+4.5%	+28.59	+36.03
6 Minimum price 50p	-4.9%	-10.1	-8.5	-21.7	+0.1	-40.2	+126.4	+29.6	-15.6	+9.1	+149.5	+6.1%	+39.01	+53.44
7 Minimum price 55p	-6.8%	-12.8	-14.3	-28.1	+0.1	-55.1	+164.9	+37.5	-21.7	+11.4	+192.1	+7.9%	+50.11	+73.94
8 Minimum price 60p	-8.8%	-15.7	-20.9	-34.7	+0.1	-71.3	+202.2	+46.6	-28.9	+13.9	+233.8	+9.6%	+60.98	+96.60
9 Minimum price 65p	-10.9%	-18.9	-28.1	-41.5	+0.1	-88.5	+235.9	+57.0	-37.3	+16.5	+272.2	+11.2%	+71.00	+120.75
10 Minimum price 70p	-13.0%	-22.1	-35.6	-48.3	+0.1	-106.0	+264.8	+68.0	-46.6	+19.2	+305.4	+12.6%	+79.68	+145.61
11 Total off-trade discount ban	-1.9%	-2.8	-9.5	-2.9	-0.1	-15.3	+60.0	+5.3	-2.2	+1.7	+64.8	+2.7%	+16.90	+23.62
12 Minimum price 25p + total off-t discount ban	-2.0%	-3.6	-9.3	-3.5	-0.1	-16.6	+65.8	+7.9	-2.7	+2.5	+73.5	+3.0%	+19.17	+25.45
13 Minimum price 30p + total off-t discount ban	-2.3%	-4.5	-9.1	-4.9	-0.0	-18.5	+72.9	+10.6	-3.5	+3.3	+83.4	+3.4%	+21.74	+27.93
14 Minimum price 35p + total off-t discount ban	-2.8%	-5.3	-9.3	-7.8	-0.0	-22.5	+86.0	+14.5	-5.3	+4.5	+99.7	+4.1%	+26.01	+32.99
15 Minimum price 40p + total off-t discount ban	-3.6%	-6.5	-10.8	-11.9	-0.0	-29.2	+106.4	+19.4	-8.1	+6.0	+123.7	+5.1%	+32.27	+41.59
16 Minimum price 45p + total off-t discount ban	-4.7%	-8.2	-13.0	-17.0	-0.0	-38.3	+131.8	+25.2	-12.1	+7.8	+152.7	+6.3%	+39.83	+53.45
17 Minimum price 50p + total off-t discount ban	-6.1%	-10.4	-16.3	-22.7	-0.0	-49.4	+160.3	+31.7	-17.0	+9.8	+184.7	+7.6%	+48.18	+68.13
18 Minimum price 55p + total off-t discount ban	-7.7%	-12.9	-20.9	-28.7	-0.0	-62.6	+191.4	+39.2	-23.0	+11.9	+219.4	+9.0%	+57.24	+85.99
19 Minimum price 60p + total off-t discount ban	-9.5%	-15.7	-26.6	-35.3	-0.0	-77.6	+222.9	+48.0	-30.3	+14.3	+255.0	+10.5%	+66.52	+106.67
20 Minimum price 65p + total off-t discount ban	-11.5%	-18.8	-33.0	-42.0	-0.0	-93.9	+252.3	+58.3	-38.7	+16.9	+288.8	+11.9%	+75.33	+129.37
21 Minimum price 70p + total off-t discount ban	-13.6%	-22.0	-39.9	-48.7	-0.0	-110.7	+277.9	+69.0	-48.0	+19.5	+318.4	+13.1%	+83.07	+153.15

Table A14.1: Summary tables for sensitivity analysis – moderate versus heavy drinkers – consumption analysis – overall population

SUMMARY - MODERATE	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	+0.0%	-0.0	+0.1	-0.1	+0.0	+0.0	+1.0	+1.2	-0.0	+0.4	+2.5	+0.3%	+1.01	+0.42
2 Minimum price 30p	-0.1%	+0.0	+0.3	-0.6	+0.0	-0.3	+2.4	+2.5	-0.2	+0.8	+5.4	+0.8%	+2.21	+1.12
3 Minimum price 35p	-0.5%	+0.1	+0.2	-1.8	+0.0	-1.6	+5.1	+4.2	-0.8	+1.3	+9.9	+1.4%	+4.07	+2.80
4 Minimum price 40p	-1.3%	+0.1	-0.7	-3.6	+0.0	-4.1	+9.4	+6.4	-1.7	+1.9	+16.1	+2.2%	+6.62	+5.77
5 Minimum price 45p	-2.5%	-0.0	-2.0	-5.9	+0.0	-7.8	+14.9	+8.9	-3.1	+2.7	+23.4	+3.3%	+9.63	+10.07
6 Minimum price 50p	-3.9%	-0.2	-3.9	-8.5	+0.0	-12.6	+21.1	+11.6	-4.9	+3.5	+31.3	+4.4%	+12.89	+15.54
7 Minimum price 55p	-5.7%	-0.5	-6.6	-11.3	-0.0	-18.4	+27.7	+14.5	-7.1	+4.4	+39.5	+5.5%	+16.27	+22.16
8 Minimum price 60p	-7.7%	-0.9	-9.7	-14.2	-0.0	-24.8	+33.9	+17.7	-9.6	+5.3	+47.3	+6.6%	+19.48	+29.62
9 Minimum price 65p	-9.9%	-1.3	-13.1	-17.2	-0.0	-31.8	+39.1	+21.3	-12.6	+6.3	+54.1	+7.6%	+22.30	+37.73
10 Minimum price 70p	-12.1%	-1.7	-16.7	-20.3	-0.1	-38.8	+43.1	+25.0	-15.7	+7.3	+59.7	+8.4%	+24.60	+46.14
11 Total off-trade discount ban	-2.1%	-0.5	-4.5	-1.5	-0.1	-6.6	+11.8	+2.2	-1.5	+0.7	+13.2	+1.8%	+5.42	+8.31
12 Minimum price 25p + total off-t discount ba	-2.1%	-0.6	-4.4	-1.6	-0.1	-6.7	+12.6	+3.2	-1.5	+1.0	+15.2	+2.1%	+6.26	+8.68
13 Minimum price 30p + total off-t discount ba	-2.2%	-0.5	-4.3	-2.1	-0.1	-6.9	+13.7	+4.2	-1.7	+1.3	+17.6	+2.5%	+7.24	+9.25
14 Minimum price 35p + total off-t discount ba	-2.5%	-0.3	-4.4	-3.2	-0.1	-8.0	+16.0	+5.8	-2.2	+1.8	+21.3	+3.0%	+8.77	+10.64
15 Minimum price 40p + total off-t discount ba	-3.2%	-0.2	-5.1	-4.8	-0.1	-10.1	+19.4	+7.7	-3.1	+2.3	+26.4	+3.7%	+10.86	+13.11
16 Minimum price 45p + total off-t discount ba	-4.1%	-0.2	-6.2	-6.8	-0.1	-13.2	+23.6	+10.0	-4.4	+3.0	+32.2	+4.5%	+13.27	+16.65
17 Minimum price 50p + total off-t discount ba	-5.4%	-0.3	-7.7	-9.2	-0.1	-17.2	+28.2	+12.5	-6.0	+3.8	+38.5	+5.4%	+15.86	+21.20
18 Minimum price 55p + total off-t discount ba	-6.9%	-0.5	-9.8	-11.7	-0.1	-22.2	+33.2	+15.2	-8.0	+4.6	+45.0	+6.3%	+18.54	+26.88
19 Minimum price 60p + total off-t discount ba	-8.8%	-0.8	-12.5	-14.6	-0.1	-28.0	+38.1	+18.3	-10.5	+5.5	+51.4	+7.2%	+21.18	+33.61
20 Minimum price 65p + total off-t discount ba	-10.8%	-1.3	-15.6	-17.6	-0.1	-34.5	+42.2	+21.8	-13.4	+6.4	+57.1	+8.0%	+23.54	+41.16
21 Minimum price 70p + total off-t discount ba	-12.9%	-1.6	-18.9	-20.6	-0.1	-41.2	+45.4	+25.5	-16.5	+7.4	+61.9	+8.7%	+25.49	+49.15

Table A14.2: Summary tables for sensitivity analysis – moderate versus heavy drinkers – consumption analysis – moderate drinkers

SUMMARY - HAZARDOUS	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.1%	-1.4	+0.5	-0.9	+0.0	-1.7	+2.6	+1.1	-0.1	+0.3	+4.0	+0.4%	+4.16	+3.16
2 Minimum price 30p	-0.3%	-3.0	+1.2	-2.9	+0.1	-4.6	+6.2	+2.2	-0.3	+0.7	+8.8	+0.9%	+9.24	+7.85
3 Minimum price 35p	-0.8%	-4.8	+1.0	-7.5	+0.1	-11.2	+12.9	+3.8	-0.8	+1.2	+17.1	+1.7%	+17.88	+17.64
4 Minimum price 40p	-1.6%	-7.1	-1.8	-14.5	+0.1	-23.3	+24.2	+5.8	-1.7	+1.8	+30.1	+3.0%	+31.60	+35.28
5 Minimum price 45p	-2.8%	-10.2	-6.7	-23.4	+0.2	-40.1	+39.0	+8.1	-3.0	+2.5	+46.6	+4.6%	+48.88	+60.01
6 Minimum price 50p	-4.3%	-13.6	-14.1	-33.0	+0.2	-60.5	+56.1	+10.6	-4.5	+3.3	+65.5	+6.5%	+68.69	+90.92
7 Minimum price 55p	-6.0%	-17.5	-24.5	-42.8	+0.2	-84.5	+75.2	+13.5	-6.4	+4.1	+86.4	+8.6%	+90.65	+128.06
8 Minimum price 60p	-7.8%	-21.9	-36.5	-52.9	+0.3	-110.9	+94.2	+16.8	-8.7	+5.1	+107.5	+10.7%	+112.69	+169.21
9 Minimum price 65p	-9.8%	-26.5	-49.3	-63.2	+0.3	-138.8	+112.0	+20.7	-11.3	+6.0	+127.4	+12.7%	+133.59	+212.97
10 Minimum price 70p	-11.8%	-31.3	-62.7	-73.7	+0.3	-167.4	+127.7	+24.9	-14.5	+7.0	+145.1	+14.4%	+152.19	+257.95
11 Total off-trade discount ban	-1.8%	-4.0	-17.2	-4.6	-0.1	-25.8	+28.7	+1.9	-0.3	+0.6	+30.9	+3.1%	+32.43	+44.24
12 Minimum price 25p + total off-t discount ba	-1.9%	-5.2	-16.7	-5.4	-0.0	-27.4	+30.9	+2.8	-0.4	+0.9	+34.2	+3.4%	+35.90	+46.97
13 Minimum price 30p + total off-t discount ba	-2.1%	-6.2	-16.3	-7.3	-0.0	-29.8	+33.7	+3.8	-0.6	+1.2	+38.1	+3.8%	+39.95	+50.73
14 Minimum price 35p + total off-t discount ba	-2.5%	-7.3	-16.4	-11.6	+0.0	-35.3	+39.1	+5.2	-1.1	+1.6	+44.7	+4.4%	+46.92	+58.71
15 Minimum price 40p + total off-t discount ba	-3.2%	-8.8	-18.7	-17.8	+0.0	-45.3	+48.1	+6.9	-2.0	+2.2	+55.2	+5.5%	+57.85	+73.16
16 Minimum price 45p + total off-t discount ba	-4.2%	-11.2	-22.5	-25.7	+0.1	-59.4	+59.7	+9.0	-3.2	+2.8	+68.3	+6.8%	+71.63	+93.59
17 Minimum price 50p + total off-t discount ba	-5.4%	-14.1	-28.2	-34.4	+0.1	-76.7	+73.3	+11.3	-4.8	+3.5	+83.3	+8.3%	+87.39	+119.35
18 Minimum price 55p + total off-t discount ba	-6.9%	-17.7	-36.4	-43.7	+0.1	-97.7	+88.6	+14.1	-6.7	+4.3	+100.4	+10.0%	+105.23	+151.28
19 Minimum price 60p + total off-t discount ba	-8.6%	-21.8	-46.5	-53.7	+0.2	-121.8	+104.8	+17.3	-9.0	+5.2	+118.3	+11.8%	+124.08	+188.52
20 Minimum price 65p + total off-t discount ba	-10.5%	-26.3	-58.1	-63.8	+0.2	-148.0	+120.3	+21.2	-11.7	+6.2	+136.0	+13.5%	+142.58	+229.45
21 Minimum price 70p + total off-t discount ba	-12.4%	-31.1	-70.4	-74.2	+0.2	-175.5	+134.4	+25.2	-14.9	+7.2	+152.0	+15.1%	+159.35	+272.32

Table A14.3: Summary tables for sensitivity analysis – moderate versus heavy drinkers – consumption analysis – hazardous drinkers

SUMMARY - HARMFUL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.4%	-10.5	-0.5	-4.3	+0.1	-15.2	+3.5	+0.8	-0.3	+0.3	+4.3	+0.7%	+15.56	+15.75
2 Minimum price 30p	-1.0%	-22.9	+0.1	-12.7	+0.1	-35.3	+7.9	+1.6	-0.8	+0.5	+9.2	+1.6%	+33.67	+37.60
3 Minimum price 35p	-2.1%	-37.0	-1.1	-31.6	+0.1	-69.5	+15.3	+2.7	-1.6	+0.9	+17.2	+3.0%	+62.93	+77.38
4 Minimum price 40p	-3.5%	-54.0	-9.3	-57.0	+0.1	-120.2	+26.1	+4.1	-2.9	+1.3	+28.6	+4.9%	+104.41	+139.20
5 Minimum price 45p	-5.4%	-73.9	-21.8	-87.4	+0.2	-182.9	+38.7	+5.7	-4.5	+1.8	+41.7	+7.1%	+152.22	+218.32
6 Minimum price 50p	-7.5%	-95.3	-39.2	-119.8	+0.2	-254.2	+52.2	+7.4	-6.4	+2.3	+55.5	+9.5%	+202.61	+310.93
7 Minimum price 55p	-9.8%	-117.8	-61.5	-152.9	+0.1	-332.1	+65.8	+9.3	-8.6	+2.9	+69.3	+11.9%	+253.25	+414.79
8 Minimum price 60p	-12.2%	-141.2	-87.0	-186.8	+0.1	-414.9	+78.7	+11.4	-11.2	+3.4	+82.4	+14.1%	+300.90	+526.71
9 Minimum price 65p	-14.8%	-165.7	-114.2	-221.3	+0.0	-501.2	+90.2	+13.9	-14.1	+4.1	+94.0	+16.1%	+343.47	+644.58
10 Minimum price 70p	-17.3%	-190.3	-142.3	-255.5	-0.1	-588.2	+100.0	+16.5	-17.3	+4.7	+103.9	+17.8%	+379.57	+765.51
11 Total off-trade discount ban	-2.0%	-21.2	-34.4	-13.0	-0.3	-68.9	+20.5	+1.2	-0.4	+0.4	+21.6	+3.7%	+78.98	+108.09
12 Minimum price 25p + total off-t discount ba	-2.4%	-29.5	-35.0	-17.2	-0.3	-81.9	+23.3	+1.9	-0.7	+0.6	+25.1	+4.3%	+91.74	+121.57
13 Minimum price 30p + total off-t discount ba	-2.9%	-38.4	-34.8	-25.0	-0.2	-98.4	+26.7	+2.6	-1.1	+0.8	+28.9	+5.0%	+105.64	+138.88
14 Minimum price 35p + total off-t discount ba	-3.8%	-48.6	-35.8	-42.6	-0.2	-127.2	+32.6	+3.5	-2.0	+1.1	+35.3	+6.0%	+128.78	+171.55
15 Minimum price 40p + total off-t discount ba	-5.0%	-61.7	-42.7	-65.8	-0.2	-170.4	+41.1	+4.8	-3.2	+1.5	+44.3	+7.6%	+161.75	+223.00
16 Minimum price 45p + total off-t discount ba	-6.6%	-78.3	-52.9	-93.5	-0.2	-224.9	+51.4	+6.2	-4.7	+2.0	+54.8	+9.4%	+200.34	+290.30
17 Minimum price 50p + total off-t discount ba	-8.5%	-97.5	-66.9	-123.4	-0.2	-287.9	+62.4	+7.8	-6.6	+2.4	+66.1	+11.3%	+241.28	+370.31
18 Minimum price 55p + total off-t discount ba	-10.6%	-118.6	-85.2	-155.1	-0.2	-359.1	+73.8	+9.6	-8.8	+3.0	+77.6	+13.3%	+283.55	+463.16
19 Minimum price 60p + total off-t discount ba	-12.9%	-141.2	-107.2	-188.6	-0.2	-437.3	+85.1	+11.7	-11.4	+3.5	+88.9	+15.2%	+324.83	+567.11
20 Minimum price 65p + total off-t discount ba	-15.3%	-165.3	-131.9	-222.8	-0.3	-520.3	+95.3	+14.1	-14.3	+4.2	+99.3	+17.0%	+362.64	+679.20
21 Minimum price 70p + total off-t discount ba	-17.8%	-189.8	-158.0	-256.7	-0.4	-604.8	+104.1	+16.7	-17.5	+4.8	+108.1	+18.5%	+395.01	+795.77

Table A14.4: Summary tables for sensitivity analysis – moderate versus heavy drinkers – consumption analysis – harmful drinkers

SUMMARY - TOTAL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-2	-0.0	-0.0	-0.0	-0.0	-13	-0.1	-0.0	-0.2	-0.3	+0.0	+0.0	+0.0	+0.0	+0.0	-0.5	-0.1
2 Minimum price 30p	-6	-0.0	-0.1	-0.1	-0.0	-34	-0.3	-0.1	-0.6	-0.9	-0.0	-0.0	-0.0	-0.0	-0.0	-1.5	-0.2
3 Minimum price 35p	-14	-0.1	-0.2	-0.3	-0.1	-77	-0.6	-0.2	-1.3	-2.1	-0.1	-0.1	-0.1	-0.3	-0.0	-4.3	-0.3
4 Minimum price 40p	-29	-0.1	-0.4	-0.6	-0.1	-145	-1.1	-0.4	-2.5	-4.1	-0.3	-0.4	-0.3	-1.0	-0.0	-9.5	-0.5
5 Minimum price 45p	-48	-0.2	-0.7	-1.1	-0.2	-233	-1.7	-0.7	-4.1	-6.8	-0.5	-0.8	-0.6	-1.9	-0.0	-16.9	-0.8
6 Minimum price 50p	-71	-0.2	-1.0	-1.6	-0.3	-333	-2.4	-1.1	-6.0	-10.0	-0.8	-1.3	-1.0	-3.1	-0.0	-26.2	-1.1
7 Minimum price 55p	-96	-0.3	-1.4	-2.2	-0.5	-443	-3.3	-1.5	-8.0	-13.5	-1.2	-1.9	-1.5	-4.6	-0.0	-37.5	-1.4
8 Minimum price 60p	-122	-0.4	-1.8	-2.8	-0.6	-558	-4.1	-2.0	-10.2	-17.2	-1.7	-2.6	-2.0	-6.3	-0.0	-50.1	-1.7
9 Minimum price 65p	-150	-0.5	-2.3	-3.5	-0.8	-675	-5.0	-2.4	-12.4	-21.1	-2.2	-3.4	-2.6	-8.2	-0.1	-63.7	-2.0
10 Minimum price 70p	-177	-0.6	-2.7	-4.2	-0.9	-792	-5.9	-2.9	-14.6	-25.0	-2.7	-4.2	-3.2	-10.1	-0.1	-77.6	-2.3
11 Total off-trade discount ban	-24	-0.1	-0.4	-0.6	-0.1	-106	-0.8	-0.4	-2.0	-3.5	-0.5	-0.7	-0.6	-1.7	-0.0	-13.5	-0.3
12 Minimum price 25p + total off-t discount ban	-26	-0.1	-0.4	-0.6	-0.1	-118	-0.9	-0.4	-2.2	-3.8	-0.5	-0.7	-0.6	-1.7	-0.0	-14.0	-0.4
13 Minimum price 30p + total off-t discount ban	-29	-0.1	-0.5	-0.7	-0.2	-134	-1.0	-0.5	-2.5	-4.2	-0.5	-0.7	-0.6	-1.7	-0.0	-14.8	-0.5
14 Minimum price 35p + total off-t discount ban	-37	-0.1	-0.6	-0.9	-0.2	-170	-1.3	-0.6	-3.1	-5.3	-0.5	-0.8	-0.6	-1.9	-0.0	-17.0	-0.6
15 Minimum price 40p + total off-t discount ban	-49	-0.2	-0.7	-1.1	-0.3	-227	-1.7	-0.8	-4.1	-7.0	-0.6	-1.0	-0.8	-2.4	-0.0	-21.3	-0.8
16 Minimum price 45p + total off-t discount ban	-65	-0.2	-1.0	-1.5	-0.3	-302	-2.2	-1.0	-5.5	-9.3	-0.8	-1.3	-1.0	-3.2	-0.0	-27.4	-1.0
17 Minimum price 50p + total off-t discount ban	-85	-0.3	-1.2	-2.0	-0.4	-389	-2.9	-1.4	-7.1	-12.0	-1.1	-1.7	-1.3	-4.2	-0.0	-35.2	-1.2
18 Minimum price 55p + total off-t discount ban	-107	-0.4	-1.6	-2.5	-0.6	-487	-3.6	-1.7	-8.9	-15.1	-1.5	-2.2	-1.7	-5.4	-0.0	-44.9	-1.5
19 Minimum price 60p + total off-t discount ban	-131	-0.4	-2.0	-3.1	-0.7	-594	-4.4	-2.1	-10.9	-18.6	-1.9	-2.9	-2.2	-7.0	-0.1	-56.4	-1.8
20 Minimum price 65p + total off-t discount ban	-157	-0.5	-2.4	-3.7	-0.8	-705	-5.2	-2.6	-13.0	-22.3	-2.4	-3.6	-2.8	-8.8	-0.1	-69.2	-2.1
21 Minimum price 70p + total off-t discount ban	-183	-0.6	-2.8	-4.3	-1.0	-817	-6.1	-3.0	-15.2	-25.9	-2.8	-4.4	-3.4	-10.6	-0.1	-82.4	-2.4

Table A14.5: Summary tables for sensitivity analysis – moderate versus heavy drinkers – harm analysis – overall population

SUMMARY - MODERATE	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	+0	-0.0	+0.0	+0.0	+0.0	+0	-0.0	+0.0	-0.0	+0.0	+0.0	+0.1	+0.0	+0.2	+0.0	+0.3	+0.0
2 Minimum price 30p	-1	-0.0	-0.0	-0.0	-0.0	-1	-0.0	-0.0	-0.0	-0.1	+0.1	+0.1	+0.1	+0.3	+0.0	+0.4	+0.0
3 Minimum price 35p	-3	-0.0	-0.1	-0.1	-0.0	-4	-0.1	-0.1	-0.2	-0.4	+0.1	+0.1	+0.1	+0.3	+0.0	-0.3	+0.0
4 Minimum price 40p	-7	-0.0	-0.2	-0.2	-0.0	-9	-0.1	-0.2	-0.4	-1.0	+0.1	+0.1	+0.0	+0.2	+0.0	-2.2	+0.0
5 Minimum price 45p	-14	-0.0	-0.3	-0.4	-0.1	-17	-0.2	-0.3	-0.8	-1.8	-0.0	+0.0	-0.0	-0.0	-0.0	-5.2	+0.0
6 Minimum price 50p	-21	-0.0	-0.5	-0.6	-0.1	-26	-0.3	-0.5	-1.2	-2.8	-0.1	-0.1	-0.2	-0.4	-0.0	-9.2	+0.0
7 Minimum price 55p	-30	-0.0	-0.6	-0.8	-0.2	-36	-0.5	-0.7	-1.6	-3.9	-0.2	-0.3	-0.3	-0.8	-0.0	-14.4	+0.0
8 Minimum price 60p	-39	-0.1	-0.9	-1.1	-0.3	-47	-0.6	-0.9	-2.1	-5.1	-0.4	-0.5	-0.5	-1.4	-0.0	-20.3	+0.0
9 Minimum price 65p	-48	-0.1	-1.1	-1.4	-0.3	-58	-0.8	-1.2	-2.7	-6.4	-0.6	-0.8	-0.7	-2.0	-0.0	-26.8	+0.0
10 Minimum price 70p	-57	-0.1	-1.3	-1.6	-0.4	-67	-0.9	-1.4	-3.2	-7.6	-0.8	-1.0	-0.9	-2.7	-0.0	-33.3	+0.0
11 Total off-trade discount ban	-9	-0.0	-0.2	-0.3	-0.1	-11	-0.1	-0.2	-0.5	-1.2	-0.2	-0.3	-0.2	-0.7	-0.0	-6.9	+0.0
12 Minimum price 25p + total off-t discount ba	-9	-0.0	-0.2	-0.3	-0.1	-12	-0.1	-0.2	-0.5	-1.2	-0.2	-0.2	-0.2	-0.6	-0.0	-6.7	+0.0
13 Minimum price 30p + total off-t discount ba	-10	-0.0	-0.2	-0.3	-0.1	-13	-0.2	-0.2	-0.5	-1.3	-0.1	-0.2	-0.2	-0.5	-0.0	-6.6	+0.0
14 Minimum price 35p + total off-t discount ba	-12	-0.0	-0.3	-0.3	-0.1	-15	-0.2	-0.3	-0.7	-1.6	-0.1	-0.1	-0.2	-0.4	-0.0	-7.2	+0.0
15 Minimum price 40p + total off-t discount ba	-15	-0.0	-0.3	-0.4	-0.1	-20	-0.2	-0.4	-0.9	-2.1	-0.1	-0.2	-0.2	-0.5	-0.0	-8.7	+0.0
16 Minimum price 45p + total off-t discount ba	-21	-0.0	-0.5	-0.6	-0.1	-26	-0.3	-0.5	-1.1	-2.7	-0.2	-0.2	-0.2	-0.6	-0.0	-11.0	+0.0
17 Minimum price 50p + total off-t discount ba	-27	-0.0	-0.6	-0.7	-0.2	-33	-0.4	-0.6	-1.5	-3.6	-0.2	-0.3	-0.3	-0.9	-0.0	-14.3	+0.0
18 Minimum price 55p + total off-t discount ba	-34	-0.1	-0.8	-1.0	-0.2	-42	-0.5	-0.8	-1.9	-4.5	-0.4	-0.5	-0.4	-1.3	-0.0	-18.6	+0.0
19 Minimum price 60p + total off-t discount ba	-42	-0.1	-1.0	-1.2	-0.3	-51	-0.7	-1.0	-2.4	-5.6	-0.5	-0.7	-0.6	-1.7	-0.0	-23.9	+0.0
20 Minimum price 65p + total off-t discount ba	-51	-0.1	-1.2	-1.5	-0.4	-61	-0.8	-1.2	-2.9	-6.8	-0.7	-0.9	-0.8	-2.3	-0.0	-29.9	+0.0
21 Minimum price 70p + total off-t discount ba	-60	-0.1	-1.4	-1.7	-0.4	-70	-1.0	-1.4	-3.4	-8.0	-0.8	-1.1	-1.0	-3.0	-0.0	-36.1	+0.0

Table A14.6: Summary tables for sensitivity analysis – moderate versus heavy drinkers – harm analysis – moderate drinkers

SUMMARY - HAZARDOUS	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-0	-0.0	-0.0	-0.0	-0.0	-3	-0.0	-0.0	-0.0	-0.1	-0.0	-0.0	-0.0	-0.0	-0.0	-0.3	+0.0
2 Minimum price 30p	-2	-0.0	-0.0	-0.0	-0.0	-9	-0.1	-0.0	-0.1	-0.2	-0.0	-0.1	-0.0	-0.1	-0.0	-0.9	+0.0
3 Minimum price 35p	-4	-0.0	-0.1	-0.1	-0.0	-24	-0.2	-0.1	-0.4	-0.6	-0.1	-0.1	-0.1	-0.3	-0.0	-2.0	+0.0
4 Minimum price 40p	-9	-0.0	-0.1	-0.2	-0.0	-52	-0.3	-0.1	-0.8	-1.3	-0.2	-0.3	-0.2	-0.6	-0.0	-3.9	+0.0
5 Minimum price 45p	-16	-0.1	-0.2	-0.3	-0.1	-88	-0.6	-0.3	-1.3	-2.3	-0.3	-0.4	-0.3	-1.1	-0.0	-6.6	+0.0
6 Minimum price 50p	-24	-0.1	-0.3	-0.5	-0.1	-132	-0.8	-0.4	-2.0	-3.5	-0.4	-0.7	-0.5	-1.6	-0.0	-9.9	+0.0
7 Minimum price 55p	-33	-0.1	-0.5	-0.7	-0.2	-181	-1.2	-0.5	-2.8	-4.8	-0.6	-0.9	-0.7	-2.2	-0.0	-13.9	+0.0
8 Minimum price 60p	-43	-0.1	-0.6	-0.9	-0.2	-232	-1.5	-0.7	-3.6	-6.2	-0.8	-1.2	-0.9	-3.0	-0.0	-18.3	+0.0
9 Minimum price 65p	-53	-0.2	-0.7	-1.2	-0.3	-284	-1.9	-0.9	-4.5	-7.6	-1.0	-1.6	-1.1	-3.7	-0.0	-22.9	+0.0
10 Minimum price 70p	-63	-0.2	-0.9	-1.4	-0.3	-337	-2.2	-1.0	-5.3	-9.1	-1.2	-1.9	-1.4	-4.5	-0.0	-27.7	+0.0
11 Total off-trade discount ban	-9	-0.0	-0.1	-0.2	-0.0	-52	-0.3	-0.1	-0.8	-1.4	-0.2	-0.3	-0.2	-0.7	-0.0	-4.5	+0.0
12 Minimum price 25p + total off-t discount ba	-10	-0.0	-0.1	-0.2	-0.0	-54	-0.3	-0.1	-0.8	-1.4	-0.2	-0.3	-0.2	-0.7	-0.0	-4.8	+0.0
13 Minimum price 30p + total off-t discount ba	-10	-0.0	-0.1	-0.2	-0.1	-58	-0.4	-0.2	-0.9	-1.5	-0.2	-0.3	-0.2	-0.8	-0.0	-5.3	+0.0
14 Minimum price 35p + total off-t discount ba	-13	-0.0	-0.2	-0.3	-0.1	-71	-0.5	-0.2	-1.1	-1.9	-0.2	-0.4	-0.3	-0.9	-0.0	-6.2	+0.0
15 Minimum price 40p + total off-t discount ba	-17	-0.1	-0.2	-0.4	-0.1	-92	-0.6	-0.3	-1.4	-2.4	-0.3	-0.5	-0.4	-1.2	-0.0	-7.8	+0.0
16 Minimum price 45p + total off-t discount ba	-23	-0.1	-0.3	-0.5	-0.1	-123	-0.8	-0.4	-1.9	-3.3	-0.4	-0.6	-0.5	-1.5	-0.0	-10.0	+0.0
17 Minimum price 50p + total off-t discount ba	-29	-0.1	-0.4	-0.6	-0.1	-161	-1.0	-0.5	-2.5	-4.3	-0.5	-0.8	-0.6	-2.0	-0.0	-12.8	+0.0
18 Minimum price 55p + total off-t discount ba	-37	-0.1	-0.5	-0.8	-0.2	-203	-1.3	-0.6	-3.2	-5.4	-0.7	-1.1	-0.8	-2.5	-0.0	-16.2	+0.0
19 Minimum price 60p + total off-t discount ba	-46	-0.2	-0.6	-1.0	-0.2	-250	-1.6	-0.7	-3.9	-6.7	-0.9	-1.4	-1.0	-3.2	-0.0	-20.2	+0.0
20 Minimum price 65p + total off-t discount ba	-56	-0.2	-0.8	-1.2	-0.3	-299	-2.0	-0.9	-4.7	-8.0	-1.1	-1.7	-1.2	-3.9	-0.0	-24.6	+0.0
21 Minimum price 70p + total off-t discount ba	-65	-0.2	-0.9	-1.5	-0.3	-350	-2.3	-1.1	-5.6	-9.4	-1.3	-2.0	-1.4	-4.7	-0.0	-29.2	+0.0

Table A14.7: Summary tables for sensitivity analysis – moderate versus heavy drinkers – harm analysis – hazardous drinkers

SUMMARY - HARMFUL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-1	-0.0	-0.0	-0.0	-0.0	-10	-0.1	-0.0	-0.2	-0.2	-0.0	-0.0	-0.0	-0.1	-0.0	-0.5	-0.1
2 Minimum price 30p	-3	-0.0	-0.0	-0.1	-0.0	-24	-0.2	-0.0	-0.4	-0.5	-0.0	-0.1	-0.1	-0.2	-0.0	-1.0	-0.2
3 Minimum price 35p	-7	-0.0	-0.1	-0.1	-0.0	-48	-0.4	-0.1	-0.8	-1.0	-0.1	-0.1	-0.1	-0.3	-0.0	-2.0	-0.3
4 Minimum price 40p	-12	-0.1	-0.1	-0.2	-0.0	-84	-0.6	-0.1	-1.4	-1.8	-0.1	-0.2	-0.2	-0.6	-0.0	-3.4	-0.5
5 Minimum price 45p	-19	-0.1	-0.2	-0.4	-0.1	-128	-0.9	-0.2	-2.0	-2.7	-0.2	-0.4	-0.2	-0.8	-0.0	-5.1	-0.8
6 Minimum price 50p	-26	-0.1	-0.2	-0.5	-0.1	-175	-1.3	-0.2	-2.8	-3.7	-0.3	-0.5	-0.3	-1.1	-0.0	-7.0	-1.1
7 Minimum price 55p	-33	-0.2	-0.3	-0.7	-0.1	-226	-1.6	-0.3	-3.6	-4.8	-0.4	-0.6	-0.4	-1.5	-0.0	-9.2	-1.4
8 Minimum price 60p	-41	-0.2	-0.4	-0.8	-0.2	-280	-2.0	-0.4	-4.4	-6.0	-0.5	-0.8	-0.6	-1.8	-0.0	-11.4	-1.7
9 Minimum price 65p	-49	-0.2	-0.4	-1.0	-0.2	-334	-2.4	-0.4	-5.2	-7.1	-0.6	-1.0	-0.7	-2.2	-0.0	-13.8	-2.0
10 Minimum price 70p	-57	-0.3	-0.5	-1.1	-0.2	-387	-2.7	-0.5	-6.1	-8.3	-0.7	-1.1	-0.8	-2.6	-0.0	-16.3	-2.3
11 Total off-trade discount ban	-6	-0.0	-0.1	-0.1	-0.0	-43	-0.3	-0.1	-0.7	-0.9	-0.1	-0.1	-0.1	-0.3	-0.0	-2.0	-0.3
12 Minimum price 25p + total off-t discount ba	-7	-0.0	-0.1	-0.2	-0.0	-52	-0.4	-0.1	-0.9	-1.1	-0.1	-0.1	-0.1	-0.4	-0.0	-2.4	-0.4
13 Minimum price 30p + total off-t discount ba	-9	-0.0	-0.1	-0.2	-0.0	-63	-0.5	-0.1	-1.0	-1.4	-0.1	-0.2	-0.1	-0.4	-0.0	-2.8	-0.5
14 Minimum price 35p + total off-t discount ba	-12	-0.1	-0.1	-0.2	-0.0	-84	-0.6	-0.1	-1.4	-1.8	-0.1	-0.2	-0.2	-0.6	-0.0	-3.6	-0.6
15 Minimum price 40p + total off-t discount ba	-17	-0.1	-0.1	-0.3	-0.1	-115	-0.8	-0.1	-1.9	-2.5	-0.2	-0.3	-0.2	-0.7	-0.0	-4.8	-0.8
16 Minimum price 45p + total off-t discount ba	-22	-0.1	-0.2	-0.4	-0.1	-152	-1.1	-0.2	-2.4	-3.3	-0.3	-0.4	-0.3	-1.0	-0.0	-6.3	-1.0
17 Minimum price 50p + total off-t discount ba	-28	-0.1	-0.2	-0.6	-0.1	-195	-1.4	-0.2	-3.1	-4.2	-0.3	-0.5	-0.4	-1.2	-0.0	-8.0	-1.2
18 Minimum price 55p + total off-t discount ba	-35	-0.2	-0.3	-0.7	-0.1	-242	-1.7	-0.3	-3.8	-5.2	-0.4	-0.7	-0.5	-1.6	-0.0	-10.0	-1.5
19 Minimum price 60p + total off-t discount ba	-43	-0.2	-0.4	-0.8	-0.2	-292	-2.1	-0.4	-4.6	-6.2	-0.5	-0.8	-0.6	-1.9	-0.0	-12.1	-1.8
20 Minimum price 65p + total off-t discount ba	-50	-0.2	-0.4	-1.0	-0.2	-345	-2.4	-0.5	-5.4	-7.4	-0.6	-1.0	-0.7	-2.3	-0.0	-14.4	-2.1
21 Minimum price 70p + total off-t discount ba	-58	-0.3	-0.5	-1.2	-0.2	-397	-2.8	-0.5	-6.2	-8.5	-0.7	-1.1	-0.8	-2.6	-0.0	-16.7	-2.4

Table A14.8: Summary tables for sensitivity analysis – moderate versus heavy elasticities – harm analysis – harmful drinkers

SUMMARY - TOTAL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	-0.1	+.0	-.0	-1.6	-1.7	-.2	+.0	-1.9	-3	+	-	-13	-17	-14	+	-31
2 Minimum price 30p	-0.5	-.0	-.1	-3.8	-4.4	-1.1	-.0	-5.5	-9	-	-1	-31	-42	-43	-	-85
3 Minimum price 35p	-1.3	-.3	-.4	-7.3	-9.2	-3.1	-.2	-12.6	-23	-2	-3	-60	-89	-104	-2	-196
4 Minimum price 40p	-2.7	-.8	-.9	-12.4	-16.8	-6.7	-.6	-24.2	-47	-7	-7	-103	-164	-207	-5	-376
5 Minimum price 45p	-4.7	-1.6	-1.6	-18.7	-26.5	-11.7	-1.2	-39.4	-78	-14	-13	-155	-259	-342	-11	-613
6 Minimum price 50p	-7.0	-2.7	-2.4	-25.5	-37.6	-17.5	-1.9	-57.0	-113	-22	-20	-212	-368	-499	-18	-885
7 Minimum price 55p	-9.6	-3.9	-3.5	-32.8	-49.8	-24.2	-2.8	-76.8	-154	-33	-29	-273	-489	-676	-26	-1,190
8 Minimum price 60p	-12.4	-5.4	-4.6	-40.3	-62.7	-31.5	-3.8	-98.0	-197	-45	-39	-335	-616	-862	-35	-1,513
9 Minimum price 65p	-15.4	-7.0	-5.9	-47.6	-75.9	-39.1	-4.9	-120.0	-242	-58	-49	-396	-746	-1,056	-45	-1,847
10 Minimum price 70p	-18.4	-8.6	-7.2	-54.5	-88.7	-46.8	-6.1	-141.6	-287	-71	-60	-453	-872	-1,250	-56	-2,178
11 Total off-trade discount ban	-2.6	-1.5	-1.3	-7.7	-13.1	-6.9	-1.0	-21.0	-39	-12	-10	-64	-127	-175	-10	-311
12 Minimum price 25p + total off-t discount ban	-2.8	-1.4	-1.3	-9.0	-14.6	-7.3	-1.0	-22.9	-43	-12	-11	-75	-141	-189	-9	-340
13 Minimum price 30p + total off-t discount ban	-3.1	-1.5	-1.4	-10.7	-16.6	-8.0	-1.1	-25.7	-48	-12	-12	-89	-161	-212	-10	-383
14 Minimum price 35p + total off-t discount ban	-3.8	-1.6	-1.6	-13.5	-20.6	-9.7	-1.2	-31.5	-60	-14	-13	-113	-199	-264	-11	-474
15 Minimum price 40p + total off-t discount ban	-5.0	-2.0	-2.0	-17.7	-26.8	-12.7	-1.5	-40.9	-79	-17	-16	-148	-260	-349	-13	-623
16 Minimum price 45p + total off-t discount ban	-6.6	-2.7	-2.5	-23.0	-34.8	-16.8	-1.9	-53.5	-105	-22	-21	-191	-340	-463	-18	-821
17 Minimum price 50p + total off-t discount ban	-8.6	-3.6	-3.3	-28.9	-44.3	-21.8	-2.5	-68.6	-136	-30	-27	-240	-433	-599	-23	-1,056
18 Minimum price 55p + total off-t discount ban	-10.9	-4.6	-4.2	-35.5	-55.1	-27.7	-3.3	-86.1	-172	-39	-35	-295	-540	-755	-30	-1,325
19 Minimum price 60p + total off-t discount ban	-13.5	-6.0	-5.2	-42.3	-67.0	-34.3	-4.2	-105.6	-212	-50	-43	-352	-657	-928	-39	-1,624
20 Minimum price 65p + total off-t discount ban	-16.4	-7.5	-6.4	-49.2	-79.5	-41.7	-5.3	-126.5	-255	-62	-53	-410	-780	-1,113	-49	-1,942
21 Minimum price 70p + total off-t discount ban	-19.2	-9.0	-7.6	-55.8	-91.6	-49.0	-6.4	-147.0	-298	-75	-63	-464	-901	-1,297	-59	-2,257

Table A14.9: Summary tables for sensitivity analysis – moderate versus heavy elasticities – financial value – overall population

SUMMARY - MODERATE	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.1	+.0	+.0	+.2	+.2	+.1	+.5	+	+1	+	+	+2	+1	+1	+3
2 Minimum price 30p	-0.1	+.2	+.0	+.0	+.2	-.0	+.2	+.3	-1	+2	+	+	+1	-6	+1	-3
3 Minimum price 35p	-0.3	+.3	-.0	+.0	-.1	-.8	+.2	-.7	-5	+2	-	+	-3	-21	+2	-22
4 Minimum price 40p	-0.9	+.2	-.2	+.0	-.9	-2.2	+.1	-3.0	-11	+1	-2	+	-11	-50	+1	-60
5 Minimum price 45p	-1.7	-.0	-.5	+.0	-2.3	-4.3	-.1	-6.6	-21	-	-4	+	-25	-91	-1	-117
6 Minimum price 50p	-2.7	-.3	-.8	+.0	-3.9	-6.8	-.3	-11.0	-32	-3	-7	+	-42	-139	-3	-184
7 Minimum price 55p	-3.9	-.7	-1.3	+.0	-5.9	-9.8	-.6	-16.3	-46	-6	-11	+	-62	-195	-5	-263
8 Minimum price 60p	-5.1	-1.2	-1.9	+.0	-8.2	-13.1	-.9	-22.2	-60	-10	-15	+	-85	-255	-9	-349
9 Minimum price 65p	-6.5	-1.8	-2.5	+.0	-10.7	-16.5	-1.3	-28.6	-75	-15	-20	+	-110	-319	-12	-441
10 Minimum price 70p	-7.8	-2.3	-3.1	+.0	-13.2	-20.0	-1.8	-34.9	-90	-19	-26	+	-135	-381	-16	-532
11 Total off-trade discount ban	-1.2	-.6	-.6	+.0	-2.5	-3.3	-.4	-6.2	-14	-5	-5	+	-24	-60	-4	-88
12 Minimum price 25p + total off-t discount ba	-1.3	-.5	-.6	+.0	-2.4	-3.3	-.4	-6.1	-14	-4	-5	+	-24	-62	-3	-89
13 Minimum price 30p + total off-t discount ba	-1.3	-.4	-.6	+.0	-2.4	-3.5	-.3	-6.2	-15	-3	-5	+	-24	-66	-3	-93
14 Minimum price 35p + total off-t discount ba	-1.6	-.4	-.7	+.0	-2.6	-4.1	-.3	-7.0	-18	-3	-6	+	-27	-80	-3	-110
15 Minimum price 40p + total off-t discount ba	-2.1	-.4	-.8	+.0	-3.3	-5.3	-.3	-8.9	-24	-3	-7	+	-34	-104	-3	-141
16 Minimum price 45p + total off-t discount ba	-2.7	-.5	-1.0	+.0	-4.3	-7.0	-.4	-11.7	-32	-5	-8	+	-45	-137	-4	-186
17 Minimum price 50p + total off-t discount ba	-3.5	-.8	-1.3	+.0	-5.6	-9.1	-.6	-15.3	-41	-6	-11	+	-59	-178	-5	-242
18 Minimum price 55p + total off-t discount ba	-4.6	-1.1	-1.7	+.0	-7.3	-11.6	-.8	-19.8	-53	-9	-14	+	-76	-226	-8	-310
19 Minimum price 60p + total off-t discount ba	-5.7	-1.5	-2.2	+.0	-9.4	-14.6	-1.1	-25.1	-66	-13	-18	+	-97	-281	-11	-389
20 Minimum price 65p + total off-t discount ba	-7.0	-2.0	-2.8	+.0	-11.8	-18.0	-1.5	-31.3	-81	-17	-23	+	-120	-342	-14	-477
21 Minimum price 70p + total off-t discount ba	-8.2	-2.5	-3.3	+.0	-14.1	-21.1	-1.9	-37.1	-95	-21	-28	+	-143	-400	-18	-561

Table A14.10: Summary tables for sensitivity analysis – moderate versus heavy drinkers – financial value – moderate drinkers

SUMMARY - HAZARDOUS	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	-0.1	-.0	-.0	+.0	-.1	-.1	-.0	-.3	-1	-	-	+	-1	-4	-	-6
2 Minimum price 30p	-0.2	-.1	-.1	+.0	-.3	-.4	-.1	-.8	-3	-1	-1	+	-4	-12	-1	-17
3 Minimum price 35p	-0.4	-.3	-.2	+.0	-.8	-1.1	-.2	-2.1	-7	-2	-1	+	-11	-32	-2	-44
4 Minimum price 40p	-0.9	-.5	-.4	+.0	-1.8	-2.3	-.4	-4.4	-15	-4	-3	+	-22	-67	-3	-93
5 Minimum price 45p	-1.5	-.9	-.6	+.0	-3.0	-3.9	-.6	-7.6	-26	-7	-5	+	-38	-116	-6	-160
6 Minimum price 50p	-2.3	-1.4	-.9	+.0	-4.6	-5.9	-.9	-11.4	-39	-11	-8	+	-58	-173	-9	-240
7 Minimum price 55p	-3.2	-1.9	-1.3	+.0	-6.4	-8.2	-1.3	-15.9	-54	-16	-11	+	-80	-239	-12	-332
8 Minimum price 60p	-4.2	-2.5	-1.7	+.0	-8.3	-10.6	-1.7	-20.7	-70	-21	-14	+	-105	-308	-16	-429
9 Minimum price 65p	-5.2	-3.1	-2.1	+.0	-10.4	-13.2	-2.2	-25.8	-86	-26	-18	+	-130	-380	-20	-530
10 Minimum price 70p	-6.2	-3.8	-2.6	+.0	-12.6	-15.9	-2.7	-31.1	-104	-32	-21	+	-156	-453	-25	-634
11 Total off-trade discount ban	-0.9	-.6	-.4	+.0	-1.9	-2.3	-.4	-4.7	-15	-5	-4	+	-23	-68	-4	-95
12 Minimum price 25p + total off-t discount ba	-0.9	-.6	-.5	+.0	-2.0	-2.5	-.4	-4.9	-16	-5	-4	+	-25	-71	-4	-100
13 Minimum price 30p + total off-t discount ba	-1.0	-.7	-.5	+.0	-2.2	-2.7	-.5	-5.4	-17	-6	-4	+	-27	-77	-4	-108
14 Minimum price 35p + total off-t discount ba	-1.2	-.8	-.6	+.0	-2.6	-3.2	-.6	-6.4	-21	-7	-5	+	-32	-93	-5	-130
15 Minimum price 40p + total off-t discount ba	-1.6	-1.0	-.7	+.0	-3.3	-4.2	-.7	-8.2	-27	-8	-6	+	-41	-122	-6	-170
16 Minimum price 45p + total off-t discount ba	-2.2	-1.3	-.9	+.0	-4.4	-5.6	-.9	-10.9	-37	-11	-8	+	-55	-163	-8	-226
17 Minimum price 50p + total off-t discount ba	-2.8	-1.7	-1.2	+.0	-5.7	-7.3	-1.2	-14.2	-48	-14	-10	+	-72	-213	-11	-295
18 Minimum price 55p + total off-t discount ba	-3.6	-2.2	-1.5	+.0	-7.3	-9.3	-1.5	-18.1	-61	-18	-12	+	-91	-270	-14	-375
19 Minimum price 60p + total off-t discount ba	-4.5	-2.7	-1.9	+.0	-9.1	-11.6	-1.9	-22.6	-76	-23	-15	+	-114	-333	-17	-464
20 Minimum price 65p + total off-t discount ba	-5.5	-3.3	-2.3	+.0	-11.1	-14.0	-2.3	-27.4	-91	-28	-19	+	-138	-401	-21	-560
21 Minimum price 70p + total off-t discount ba	-6.5	-4.0	-2.7	+.0	-13.1	-16.6	-2.8	-32.5	-108	-33	-22	+	-163	-472	-26	-660

Table A14.11: Summary tables for sensitivity analysis – moderate versus heavy drinkers – financial value – hazardous drinkers

SUMMARY - HARMFUL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	-0.1	-.1	-.0	-1.6	-1.8	-.3	-.0	-2.1	-3	-1	-	-13	-17	-11	-	-28
2 Minimum price 30p	-0.3	-.1	-.1	-3.8	-4.3	-.7	-.1	-5.0	-6	-1	-1	-31	-39	-26	-1	-66
3 Minimum price 35p	-0.5	-.3	-.2	-7.3	-8.3	-1.3	-.2	-9.8	-12	-2	-2	-60	-76	-51	-2	-129
4 Minimum price 40p	-0.9	-.5	-.3	-12.4	-14.2	-2.3	-.3	-16.8	-20	-4	-3	-103	-130	-89	-3	-223
5 Minimum price 45p	-1.4	-.7	-.5	-18.7	-21.3	-3.5	-.5	-25.2	-31	-6	-4	-155	-196	-136	-5	-336
6 Minimum price 50p	-1.9	-1.0	-.7	-25.5	-29.1	-4.8	-.7	-34.6	-42	-8	-6	-212	-268	-187	-6	-461
7 Minimum price 55p	-2.5	-1.3	-.9	-32.8	-37.5	-6.2	-.9	-44.6	-54	-11	-7	-273	-345	-241	-8	-595
8 Minimum price 60p	-3.1	-1.6	-1.1	-40.3	-46.1	-7.7	-1.1	-54.9	-67	-13	-9	-335	-425	-298	-10	-733
9 Minimum price 65p	-3.7	-1.9	-1.3	-47.6	-54.6	-9.3	-1.3	-65.2	-80	-16	-11	-396	-503	-357	-12	-872
10 Minimum price 70p	-4.4	-2.2	-1.6	-54.5	-62.7	-10.8	-1.6	-75.0	-93	-19	-13	-453	-578	-414	-14	-1,007
11 Total off-trade discount ban	-0.5	-.2	-.2	-7.7	-8.7	-1.2	-.2	-10.1	-11	-2	-2	-64	-79	-47	-2	-127
12 Minimum price 25p + total off-t discount ba	-0.6	-.3	-.2	-9.0	-10.2	-1.5	-.2	-11.8	-13	-2	-2	-75	-92	-56	-2	-151
13 Minimum price 30p + total off-t discount ba	-0.7	-.4	-.3	-10.7	-12.0	-1.8	-.3	-14.1	-15	-3	-2	-89	-110	-68	-2	-180
14 Minimum price 35p + total off-t discount ba	-0.9	-.5	-.3	-13.5	-15.3	-2.3	-.3	-18.0	-20	-4	-3	-113	-140	-90	-3	-233
15 Minimum price 40p + total off-t discount ba	-1.3	-.6	-.5	-17.7	-20.1	-3.2	-.4	-23.7	-28	-5	-4	-148	-184	-123	-4	-312
16 Minimum price 45p + total off-t discount ba	-1.7	-.8	-.6	-23.0	-26.1	-4.2	-.6	-30.9	-37	-7	-5	-191	-240	-163	-5	-408
17 Minimum price 50p + total off-t discount ba	-2.2	-1.1	-.8	-28.9	-32.9	-5.4	-.7	-39.0	-47	-9	-6	-240	-303	-208	-7	-518
18 Minimum price 55p + total off-t discount ba	-2.7	-1.3	-1.0	-35.5	-40.4	-6.7	-.9	-48.0	-58	-11	-8	-295	-372	-258	-9	-639
19 Minimum price 60p + total off-t discount ba	-3.3	-1.6	-1.2	-42.3	-48.4	-8.1	-1.1	-57.6	-70	-14	-10	-352	-446	-312	-11	-769
20 Minimum price 65p + total off-t discount ba	-3.9	-2.0	-1.4	-49.2	-56.5	-9.6	-1.4	-67.4	-83	-16	-11	-410	-520	-368	-13	-901
21 Minimum price 70p + total off-t discount ba	-4.5	-2.3	-1.6	-55.8	-64.2	-11.1	-1.6	-76.8	-95	-19	-13	-464	-592	-424	-15	-1,031

Table A14.12: Summary tables for sensitivity analysis – moderate versus heavy drinkers – financial value – harmful drinkers

Appendix 15: Summary tables for sensitivity analysis – protective effects of alcohol for CHD

SUMMARY - TOTAL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.2%	-1.9	+1.5	-1.0	+0.0	-1.3	+8.4	+6.4	-0.6	+2.0	+16.1	+0.7%	+4.20	+2.13
2 Minimum price 30p	-0.5%	-4.1	+3.3	-3.2	+0.0	-4.0	+17.8	+12.9	-2.3	+4.0	+32.4	+1.3%	+8.46	+5.24
3 Minimum price 35p	-1.3%	-6.8	+4.6	-8.4	+0.0	-10.5	+32.8	+21.5	-6.6	+6.7	+54.4	+2.2%	+14.20	+11.42
4 Minimum price 40p	-2.7%	-9.9	+3.3	-15.8	+0.0	-22.3	+53.9	+32.7	-14.2	+10.1	+82.6	+3.4%	+21.54	+21.84
5 Minimum price 45p	-4.7%	-13.8	+0.2	-25.1	+0.1	-38.6	+77.2	+45.3	-24.9	+14.0	+111.7	+4.6%	+29.13	+36.03
6 Minimum price 50p	-7.2%	-18.3	-5.3	-35.1	+0.1	-58.7	+99.9	+59.0	-38.5	+18.2	+138.6	+5.7%	+36.16	+53.44
7 Minimum price 55p	-10.0%	-22.4	-13.8	-45.4	+0.0	-81.6	+121.2	+73.9	-54.2	+22.7	+163.5	+6.7%	+42.66	+73.94
8 Minimum price 60p	-12.9%	-24.9	-24.0	-56.0	+0.0	-104.9	+139.6	+90.1	-70.8	+27.3	+186.2	+7.7%	+48.57	+96.60
9 Minimum price 65p	-15.9%	-27.5	-35.5	-66.4	-0.0	-129.5	+151.2	+107.7	-89.2	+32.0	+201.7	+8.3%	+52.63	+120.75
10 Minimum price 70p	-18.9%	-30.3	-47.8	-75.7	-0.0	-153.9	+155.5	+125.7	-108.3	+36.8	+209.8	+8.6%	+54.73	+145.61
11 Total off-trade discount ban	-3.0%	-4.9	-14.9	-4.6	-0.1	-24.5	+48.6	+11.0	-11.0	+3.4	+52.0	+2.1%	+13.57	+23.62
12 Minimum price 25p + total off-t discount ban	-3.2%	-6.3	-13.8	-5.6	-0.1	-25.8	+55.3	+16.5	-11.8	+5.1	+65.2	+2.7%	+17.00	+25.45
13 Minimum price 30p + total off-t discount ban	-3.5%	-7.9	-12.5	-7.7	-0.1	-28.1	+62.7	+21.9	-13.4	+6.8	+78.0	+3.2%	+20.34	+27.93
14 Minimum price 35p + total off-t discount ban	-4.1%	-9.6	-11.6	-12.5	-0.1	-33.7	+74.5	+29.3	-17.4	+9.1	+95.6	+3.9%	+24.94	+32.99
15 Minimum price 40p + total off-t discount ban	-5.4%	-11.7	-12.7	-19.1	-0.1	-43.7	+90.6	+39.3	-24.2	+12.2	+117.8	+4.8%	+30.74	+41.59
16 Minimum price 45p + total off-t discount ban	-7.1%	-14.8	-15.2	-27.5	-0.1	-57.6	+107.9	+50.7	-34.0	+15.7	+140.3	+5.8%	+36.61	+53.45
17 Minimum price 50p + total off-t discount ban	-9.2%	-18.8	-19.3	-36.6	-0.1	-74.8	+123.9	+63.3	-46.4	+19.6	+160.5	+6.6%	+41.86	+68.13
18 Minimum price 55p + total off-t discount ban	-11.7%	-22.5	-25.9	-46.4	-0.1	-94.9	+138.6	+77.4	-61.0	+23.8	+178.7	+7.3%	+46.62	+85.99
19 Minimum price 60p + total off-t discount ban	-14.3%	-24.8	-34.5	-56.8	-0.1	-116.2	+151.6	+93.1	-77.1	+28.2	+195.8	+8.0%	+51.07	+106.67
20 Minimum price 65p + total off-t discount ban	-17.1%	-27.3	-44.8	-67.1	-0.1	-139.3	+158.9	+110.2	-95.0	+32.8	+206.9	+8.5%	+53.97	+129.37
21 Minimum price 70p + total off-t discount ban	-20.0%	-30.0	-56.2	-76.3	-0.2	-162.7	+159.7	+127.9	-113.9	+37.5	+211.3	+8.7%	+55.12	+153.15

Table A15.1: Summary tables for sensitivity analysis – protective effects of alcohol for CHD – consumption analysis – overall population

SUMMARY - MODERATE	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	+0.0%	-0.0	+0.1	-0.1	+0.0	+0.0	+1.0	+1.2	-0.0	+0.4	+2.5	+0.3%	+1.01	+0.42
2 Minimum price 30p	-0.1%	+0.0	+0.3	-0.6	+0.0	-0.3	+2.4	+2.5	-0.2	+0.8	+5.4	+0.8%	+2.21	+1.12
3 Minimum price 35p	-0.5%	+0.1	+0.2	-1.8	+0.0	-1.6	+5.1	+4.2	-0.8	+1.3	+9.9	+1.4%	+4.07	+2.80
4 Minimum price 40p	-1.3%	+0.1	-0.7	-3.6	+0.0	-4.1	+9.4	+6.4	-1.7	+1.9	+16.1	+2.2%	+6.62	+5.77
5 Minimum price 45p	-2.5%	-0.0	-2.0	-5.9	+0.0	-7.8	+14.9	+8.9	-3.1	+2.7	+23.4	+3.3%	+9.63	+10.07
6 Minimum price 50p	-3.9%	-0.2	-3.9	-8.5	+0.0	-12.6	+21.1	+11.6	-4.9	+3.5	+31.3	+4.4%	+12.89	+15.54
7 Minimum price 55p	-5.7%	-0.5	-6.6	-11.3	-0.0	-18.4	+27.7	+14.5	-7.1	+4.4	+39.5	+5.5%	+16.27	+22.16
8 Minimum price 60p	-7.7%	-0.9	-9.7	-14.2	-0.0	-24.8	+33.9	+17.7	-9.6	+5.3	+47.3	+6.6%	+19.48	+29.62
9 Minimum price 65p	-9.9%	-1.3	-13.1	-17.2	-0.0	-31.8	+39.1	+21.3	-12.6	+6.3	+54.1	+7.6%	+22.30	+37.73
10 Minimum price 70p	-12.1%	-1.7	-16.7	-20.3	-0.1	-38.8	+43.1	+25.0	-15.7	+7.3	+59.7	+8.4%	+24.60	+46.14
11 Total off-trade discount ban	-2.1%	-0.5	-4.5	-1.5	-0.1	-6.6	+11.8	+2.2	-1.5	+0.7	+13.2	+1.8%	+5.42	+8.31
12 Minimum price 25p + total off-t discount ba	-2.1%	-0.6	-4.4	-1.6	-0.1	-6.7	+12.6	+3.2	-1.5	+1.0	+15.2	+2.1%	+6.26	+8.68
13 Minimum price 30p + total off-t discount ba	-2.2%	-0.5	-4.3	-2.1	-0.1	-6.9	+13.7	+4.2	-1.7	+1.3	+17.6	+2.5%	+7.24	+9.25
14 Minimum price 35p + total off-t discount ba	-2.5%	-0.3	-4.4	-3.2	-0.1	-8.0	+16.0	+5.8	-2.2	+1.8	+21.3	+3.0%	+8.77	+10.64
15 Minimum price 40p + total off-t discount ba	-3.2%	-0.2	-5.1	-4.8	-0.1	-10.1	+19.4	+7.7	-3.1	+2.3	+26.4	+3.7%	+10.86	+13.11
16 Minimum price 45p + total off-t discount ba	-4.1%	-0.2	-6.2	-6.8	-0.1	-13.2	+23.6	+10.0	-4.4	+3.0	+32.2	+4.5%	+13.27	+16.65
17 Minimum price 50p + total off-t discount ba	-5.4%	-0.3	-7.7	-9.2	-0.1	-17.2	+28.2	+12.5	-6.0	+3.8	+38.5	+5.4%	+15.86	+21.20
18 Minimum price 55p + total off-t discount ba	-6.9%	-0.5	-9.8	-11.7	-0.1	-22.2	+33.2	+15.2	-8.0	+4.6	+45.0	+6.3%	+18.54	+26.88
19 Minimum price 60p + total off-t discount ba	-8.8%	-0.8	-12.5	-14.6	-0.1	-28.0	+38.1	+18.3	-10.5	+5.5	+51.4	+7.2%	+21.18	+33.61
20 Minimum price 65p + total off-t discount ba	-10.8%	-1.3	-15.6	-17.6	-0.1	-34.5	+42.2	+21.8	-13.4	+6.4	+57.1	+8.0%	+23.54	+41.16
21 Minimum price 70p + total off-t discount ba	-12.9%	-1.6	-18.9	-20.6	-0.1	-41.2	+45.4	+25.5	-16.5	+7.4	+61.9	+8.7%	+25.49	+49.15

Table A15.2: Summary tables for sensitivity analysis – protective effects of alcohol for CHD – consumption analysis – moderate drinkers

SUMMARY - HAZARDOUS	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	+0.0%	-2.2	+4.3	-1.5	+0.0	+0.7	+3.7	+2.9	+0.2	+0.9	+7.7	+0.8%	+8.05	+3.16
2 Minimum price 30p	-0.1%	-4.8	+9.0	-5.0	+0.1	-0.8	+7.8	+6.0	-0.1	+1.9	+15.6	+1.5%	+16.35	+7.85
3 Minimum price 35p	-0.6%	-7.8	+12.6	-13.4	+0.1	-8.6	+14.4	+9.9	-1.4	+3.1	+26.1	+2.6%	+27.32	+17.64
4 Minimum price 40p	-1.9%	-11.5	+11.4	-26.3	+0.1	-26.2	+24.0	+15.3	-4.2	+4.7	+39.7	+3.9%	+41.68	+35.28
5 Minimum price 45p	-3.7%	-16.5	+6.2	-42.7	+0.1	-52.9	+34.7	+21.3	-8.7	+6.6	+53.9	+5.4%	+56.54	+60.01
6 Minimum price 50p	-6.2%	-22.6	-4.6	-60.5	+0.2	-87.6	+45.3	+27.8	-14.5	+8.6	+67.2	+6.7%	+70.43	+90.92
7 Minimum price 55p	-9.1%	-27.5	-22.0	-78.8	+0.2	-128.1	+55.6	+34.9	-21.5	+10.8	+79.8	+7.9%	+83.65	+128.06
8 Minimum price 60p	-12.1%	-30.3	-43.4	-97.4	+0.2	-170.9	+64.3	+42.6	-29.1	+13.0	+90.8	+9.0%	+95.20	+169.21
9 Minimum price 65p	-15.3%	-33.6	-67.5	-115.4	+0.2	-216.4	+69.6	+50.9	-37.6	+15.2	+98.2	+9.7%	+102.94	+212.97
10 Minimum price 70p	-18.6%	-37.5	-93.5	-131.7	+0.1	-262.5	+71.1	+59.3	-46.6	+17.5	+101.4	+10.1%	+106.28	+257.95
11 Total off-trade discount ban	-3.3%	-6.9	-31.4	-8.3	-0.2	-46.8	+21.8	+5.4	-5.5	+1.7	+23.4	+2.3%	+24.53	+44.24
12 Minimum price 25p + total off-t discount ba	-3.3%	-8.7	-28.2	-9.8	-0.1	-46.8	+24.8	+7.9	-5.5	+2.4	+29.7	+2.9%	+31.14	+46.97
13 Minimum price 30p + total off-t discount ba	-3.4%	-10.3	-24.9	-13.2	-0.1	-48.4	+28.2	+10.4	-5.8	+3.2	+36.0	+3.6%	+37.78	+50.73
14 Minimum price 35p + total off-t discount ba	-3.9%	-12.0	-22.1	-20.9	-0.1	-55.1	+33.4	+13.8	-7.0	+4.3	+44.5	+4.4%	+46.71	+58.71
15 Minimum price 40p + total off-t discount ba	-4.9%	-14.2	-23.3	-32.4	-0.1	-69.9	+40.8	+18.5	-9.6	+5.8	+55.5	+5.5%	+58.16	+73.16
16 Minimum price 45p + total off-t discount ba	-6.5%	-18.0	-27.3	-47.0	-0.0	-92.3	+48.8	+24.0	-13.6	+7.4	+66.6	+6.6%	+69.81	+93.59
17 Minimum price 50p + total off-t discount ba	-8.6%	-23.2	-35.1	-63.1	-0.0	-121.4	+56.2	+30.0	-18.9	+9.3	+76.6	+7.6%	+80.29	+119.35
18 Minimum price 55p + total off-t discount ba	-11.0%	-27.5	-48.3	-80.5	-0.0	-156.3	+63.2	+36.6	-25.3	+11.3	+85.9	+8.5%	+90.08	+151.28
19 Minimum price 60p + total off-t discount ba	-13.8%	-29.9	-66.1	-98.8	-0.0	-194.8	+69.3	+44.0	-32.5	+13.4	+94.2	+9.4%	+98.76	+188.52
20 Minimum price 65p + total off-t discount ba	-16.8%	-33.0	-87.6	-116.6	-0.0	-237.2	+72.5	+52.1	-40.8	+15.6	+99.4	+9.9%	+104.20	+229.45
21 Minimum price 70p + total off-t discount ba	-19.9%	-36.8	-111.6	-132.7	-0.0	-281.2	+72.2	+60.4	-49.7	+17.9	+100.8	+10.0%	+105.65	+272.32

Table A15.3: Summary tables for sensitivity analysis – protective effects of alcohol for CHD – consumption analysis – hazardous drinkers

SUMMARY - HARMFUL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.6%	-19.3	+5.8	-7.3	+0.1	-20.7	+3.9	+2.4	-0.8	+0.7	+6.2	+1.1%	+22.82	+15.75
2 Minimum price 30p	-1.5%	-43.5	+13.9	-22.1	+0.1	-51.7	+8.0	+4.5	-2.0	+1.4	+11.9	+2.0%	+43.64	+37.60
3 Minimum price 35p	-3.2%	-71.4	+20.0	-56.6	+0.0	-108.0	+14.1	+7.4	-4.5	+2.3	+19.3	+3.3%	+70.51	+77.38
4 Minimum price 40p	-5.7%	-104.0	+12.9	-103.0	+0.0	-194.1	+21.9	+11.1	-8.5	+3.5	+28.0	+4.8%	+102.29	+139.20
5 Minimum price 45p	-8.9%	-142.0	-1.7	-158.7	-0.0	-302.4	+29.6	+15.2	-13.6	+4.8	+35.9	+6.2%	+131.11	+218.32
6 Minimum price 50p	-12.6%	-183.7	-27.2	-217.2	-0.1	-428.2	+35.9	+19.6	-19.9	+6.1	+41.8	+7.2%	+152.59	+310.93
7 Minimum price 55p	-16.6%	-221.5	-63.9	-277.1	-0.3	-562.7	+40.8	+24.3	-26.8	+7.5	+45.8	+7.8%	+167.21	+414.79
8 Minimum price 60p	-20.4%	-243.1	-108.5	-338.6	-0.5	-690.6	+44.5	+29.3	-33.7	+9.0	+49.2	+8.4%	+179.54	+526.71
9 Minimum price 65p	-24.3%	-263.1	-158.6	-400.4	-0.7	-822.8	+45.6	+34.7	-41.2	+10.5	+49.6	+8.5%	+181.03	+644.58
10 Minimum price 70p	-28.0%	-284.9	-213.3	-450.4	-1.0	-949.6	+44.3	+40.2	-48.6	+12.0	+47.8	+8.2%	+174.74	+765.51
11 Total off-trade discount ban	-3.8%	-41.1	-62.6	-23.4	-0.7	-127.8	+15.8	+3.3	-4.2	+1.1	+15.9	+2.7%	+58.11	+108.09
12 Minimum price 25p + total off-t discount ba	-4.3%	-56.2	-58.9	-30.7	-0.6	-146.4	+18.8	+5.4	-5.0	+1.7	+20.9	+3.6%	+76.51	+121.57
13 Minimum price 30p + total off-t discount ba	-5.1%	-73.6	-53.4	-44.6	-0.6	-172.2	+21.9	+7.2	-6.1	+2.3	+25.3	+4.3%	+92.30	+138.88
14 Minimum price 35p + total off-t discount ba	-6.5%	-93.8	-49.1	-76.6	-0.6	-220.2	+26.6	+9.7	-8.5	+3.1	+30.9	+5.3%	+113.01	+171.55
15 Minimum price 40p + total off-t discount ba	-8.7%	-118.7	-55.5	-119.1	-0.7	-293.9	+32.4	+13.0	-12.0	+4.1	+37.5	+6.4%	+137.01	+223.00
16 Minimum price 45p + total off-t discount ba	-11.5%	-150.2	-67.3	-170.0	-0.7	-388.2	+38.0	+16.8	-16.8	+5.3	+43.3	+7.4%	+158.14	+290.30
17 Minimum price 50p + total off-t discount ba	-14.7%	-187.7	-86.9	-223.7	-0.8	-499.1	+42.3	+20.9	-22.5	+6.5	+47.2	+8.1%	+172.31	+370.31
18 Minimum price 55p + total off-t discount ba	-18.3%	-222.7	-116.2	-281.0	-0.9	-620.9	+45.3	+25.3	-29.1	+7.9	+49.4	+8.5%	+180.37	+463.16
19 Minimum price 60p + total off-t discount ba	-21.8%	-242.7	-154.3	-341.8	-1.1	-740.0	+47.6	+30.2	-35.8	+9.3	+51.2	+8.8%	+187.19	+567.11
20 Minimum price 65p + total off-t discount ba	-25.5%	-262.1	-199.5	-403.0	-1.3	-865.9	+47.4	+35.4	-43.1	+10.8	+50.4	+8.6%	+184.22	+679.20
21 Minimum price 70p + total off-t discount ba	-29.1%	-283.6	-250.4	-452.5	-1.6	-988.1	+45.1	+40.8	-50.4	+12.2	+47.7	+8.2%	+174.19	+795.77

Table A15.4: Summary tables for sensitivity analysis – protective effects of alcohol for CHD – consumption analysis – harmful drinkers

SUMMARY - TOTAL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-1	-0.0	+0.0	-0.0	+0.0	-11	-0.1	+0.0	-0.2	-0.2	+0.1	+0.1	+0.0	+0.2	+0.0	-0.2	-0.1
2 Minimum price 30p	-5	-0.0	-0.0	-0.1	-0.0	-33	-0.3	-0.0	-0.6	-0.8	+0.0	+0.1	+0.0	+0.1	+0.0	-1.3	-0.2
3 Minimum price 35p	-17	-0.1	-0.2	-0.4	-0.1	-87	-0.7	-0.2	-1.6	-2.4	-0.1	-0.1	-0.1	-0.3	-0.0	-4.7	-0.4
4 Minimum price 40p	-36	-0.1	-0.5	-0.8	-0.2	-180	-1.4	-0.5	-3.3	-5.2	-0.3	-0.5	-0.4	-1.1	-0.0	-11.6	-0.8
5 Minimum price 45p	-62	-0.2	-0.9	-1.4	-0.3	-300	-2.3	-1.0	-5.5	-9.0	-0.7	-1.0	-0.8	-2.5	-0.0	-21.7	-1.2
6 Minimum price 50p	-93	-0.3	-1.3	-2.1	-0.5	-442	-3.3	-1.5	-8.1	-13.4	-1.1	-1.7	-1.3	-4.2	-0.0	-34.6	-1.7
7 Minimum price 55p	-127	-0.4	-1.9	-2.9	-0.6	-592	-4.5	-2.1	-10.9	-18.3	-1.6	-2.6	-2.0	-6.2	-0.0	-49.9	-2.2
8 Minimum price 60p	-162	-0.5	-2.4	-3.8	-0.8	-739	-5.6	-2.7	-13.7	-23.3	-2.2	-3.4	-2.6	-8.3	-0.1	-66.1	-2.6
9 Minimum price 65p	-198	-0.6	-3.0	-4.6	-1.0	-888	-6.8	-3.3	-16.6	-28.3	-2.8	-4.3	-3.3	-10.4	-0.1	-83.5	-3.0
10 Minimum price 70p	-232	-0.8	-3.6	-5.5	-1.3	-1028	-7.9	-4.0	-19.5	-33.4	-3.4	-5.3	-4.0	-12.7	-0.1	-101.0	-3.3
11 Total off-trade discount ban	-35	-0.1	-0.5	-0.8	-0.2	-158	-1.2	-0.6	-2.9	-5.1	-0.7	-1.0	-0.8	-2.4	-0.0	-18.8	-0.6
12 Minimum price 25p + total off-t discount bar	-36	-0.1	-0.6	-0.9	-0.2	-170	-1.3	-0.6	-3.1	-5.4	-0.6	-0.9	-0.8	-2.3	-0.0	-19.2	-0.7
13 Minimum price 30p + total off-t discount bar	-40	-0.1	-0.6	-1.0	-0.2	-189	-1.4	-0.7	-3.5	-6.0	-0.6	-0.9	-0.8	-2.3	-0.0	-20.1	-0.8
14 Minimum price 35p + total off-t discount bar	-50	-0.2	-0.7	-1.2	-0.3	-235	-1.8	-0.8	-4.3	-7.3	-0.7	-1.0	-0.9	-2.6	-0.0	-23.0	-1.0
15 Minimum price 40p + total off-t discount bar	-66	-0.2	-1.0	-1.5	-0.3	-313	-2.3	-1.1	-5.7	-9.6	-0.9	-1.3	-1.1	-3.2	-0.0	-28.6	-1.2
16 Minimum price 45p + total off-t discount bar	-88	-0.3	-1.3	-2.0	-0.5	-414	-3.1	-1.4	-7.6	-12.8	-1.1	-1.7	-1.4	-4.3	-0.0	-37.0	-1.6
17 Minimum price 50p + total off-t discount bar	-114	-0.4	-1.7	-2.7	-0.6	-534	-4.0	-1.9	-9.8	-16.6	-1.5	-2.3	-1.8	-5.7	-0.0	-47.9	-2.0
18 Minimum price 55p + total off-t discount bar	-144	-0.5	-2.1	-3.4	-0.8	-665	-5.0	-2.4	-12.3	-20.9	-2.0	-3.0	-2.4	-7.4	-0.1	-61.0	-2.4
19 Minimum price 60p + total off-t discount bar	-176	-0.6	-2.7	-4.1	-0.9	-799	-6.0	-2.9	-14.9	-25.4	-2.5	-3.8	-3.0	-9.3	-0.1	-75.6	-2.8
20 Minimum price 65p + total off-t discount bar	-210	-0.7	-3.2	-5.0	-1.1	-938	-7.1	-3.6	-17.7	-30.2	-3.0	-4.7	-3.6	-11.3	-0.1	-91.7	-3.1
21 Minimum price 70p + total off-t discount bar	-242	-0.8	-3.8	-5.8	-1.3	-1071	-8.2	-4.2	-20.3	-34.9	-3.6	-5.6	-4.3	-13.4	-0.1	-108.3	-3.3

Table A15.5: Summary tables for sensitivity analysis – protective effects of alcohol for CHD – harm analysis – overall population

SUMMARY - MODERATE	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	+0	-0.0	+0.0	+0.0	+0.0	+0	-0.0	+0.0	+0.0	+0.0	+0.0	+0.1	+0.0	+0.2	+0.0	+0.3	+0.0
2 Minimum price 30p	-1	-0.0	-0.0	-0.0	-0.0	-0	-0.0	-0.0	-0.0	-0.1	+0.1	+0.1	+0.1	+0.3	+0.0	+0.4	+0.0
3 Minimum price 35p	-3	-0.0	-0.1	-0.1	-0.0	-2	-0.0	-0.1	-0.2	-0.4	+0.1	+0.1	+0.1	+0.3	+0.0	-0.3	+0.0
4 Minimum price 40p	-7	-0.0	-0.2	-0.2	-0.0	-5	-0.1	-0.2	-0.4	-1.0	+0.1	+0.1	+0.0	+0.2	+0.0	-2.2	+0.0
5 Minimum price 45p	-13	-0.0	-0.3	-0.4	-0.1	-9	-0.2	-0.3	-0.7	-1.9	-0.0	+0.0	-0.0	-0.0	-0.0	-5.2	+0.0
6 Minimum price 50p	-20	-0.0	-0.5	-0.6	-0.1	-14	-0.3	-0.5	-1.0	-2.9	-0.1	-0.1	-0.2	-0.4	-0.0	-9.2	+0.0
7 Minimum price 55p	-28	-0.0	-0.6	-0.8	-0.2	-20	-0.4	-0.7	-1.5	-4.1	-0.2	-0.3	-0.3	-0.8	-0.0	-14.4	+0.0
8 Minimum price 60p	-37	-0.1	-0.9	-1.1	-0.3	-26	-0.5	-0.9	-1.9	-5.3	-0.4	-0.5	-0.5	-1.4	-0.0	-20.3	+0.0
9 Minimum price 65p	-46	-0.1	-1.1	-1.3	-0.3	-32	-0.6	-1.1	-2.4	-6.6	-0.6	-0.8	-0.7	-2.0	-0.0	-26.8	+0.0
10 Minimum price 70p	-54	-0.1	-1.3	-1.6	-0.4	-36	-0.8	-1.4	-2.9	-7.9	-0.8	-1.0	-0.9	-2.7	-0.0	-33.3	+0.0
11 Total off-trade discount ban	-8	-0.0	-0.2	-0.3	-0.1	-7	-0.1	-0.2	-0.4	-1.3	-0.2	-0.3	-0.2	-0.7	-0.0	-6.9	+0.0
12 Minimum price 25p + total off-t discount ba	-9	-0.0	-0.2	-0.3	-0.1	-7	-0.1	-0.2	-0.5	-1.3	-0.2	-0.2	-0.2	-0.6	-0.0	-6.7	+0.0
13 Minimum price 30p + total off-t discount ba	-9	-0.0	-0.2	-0.3	-0.1	-8	-0.1	-0.2	-0.5	-1.4	-0.1	-0.2	-0.2	-0.5	-0.0	-6.6	+0.0
14 Minimum price 35p + total off-t discount ba	-11	-0.0	-0.3	-0.3	-0.1	-9	-0.2	-0.3	-0.6	-1.7	-0.1	-0.1	-0.2	-0.4	-0.0	-7.2	+0.0
15 Minimum price 40p + total off-t discount ba	-15	-0.0	-0.3	-0.4	-0.1	-11	-0.2	-0.4	-0.8	-2.2	-0.1	-0.2	-0.2	-0.5	-0.0	-8.7	+0.0
16 Minimum price 45p + total off-t discount ba	-20	-0.0	-0.5	-0.6	-0.1	-15	-0.3	-0.5	-1.0	-2.9	-0.2	-0.2	-0.2	-0.6	-0.0	-11.0	+0.0
17 Minimum price 50p + total off-t discount ba	-25	-0.0	-0.6	-0.7	-0.2	-19	-0.4	-0.6	-1.3	-3.7	-0.2	-0.3	-0.3	-0.9	-0.0	-14.3	+0.0
18 Minimum price 55p + total off-t discount ba	-33	-0.0	-0.8	-0.9	-0.2	-23	-0.5	-0.8	-1.7	-4.8	-0.4	-0.5	-0.4	-1.3	-0.0	-18.6	+0.0
19 Minimum price 60p + total off-t discount ba	-40	-0.1	-1.0	-1.2	-0.3	-29	-0.6	-1.0	-2.1	-5.9	-0.5	-0.7	-0.6	-1.7	-0.0	-23.9	+0.0
20 Minimum price 65p + total off-t discount ba	-49	-0.1	-1.2	-1.4	-0.4	-34	-0.7	-1.2	-2.6	-7.1	-0.7	-0.9	-0.8	-2.3	-0.0	-29.9	+0.0
21 Minimum price 70p + total off-t discount ba	-57	-0.1	-1.4	-1.7	-0.4	-38	-0.8	-1.4	-3.0	-8.3	-0.8	-1.1	-1.0	-3.0	-0.0	-36.1	+0.0

Table A15.6: Summary tables for sensitivity analysis – protective effects of alcohol for CHD – harm analysis – moderate drinkers

SUMMARY - HAZARDOUS	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	+1	+0.0	+0.0	+0.0	+0.0	+2	+0.0	+0.0	+0.0	+0.1	+0.0	+0.0	+0.0	+0.1	+0.0	+0.1	+0.0
2 Minimum price 30p	+0	-0.0	+0.0	+0.0	+0.0	-1	-0.0	+0.0	-0.0	+0.0	+0.0	+0.0	-0.0	+0.0	+0.0	-0.1	+0.0
3 Minimum price 35p	-4	-0.0	-0.1	-0.1	-0.0	-18	-0.1	-0.1	-0.3	-0.5	-0.0	-0.1	-0.1	-0.2	-0.0	-1.3	+0.0
4 Minimum price 40p	-11	-0.0	-0.2	-0.2	-0.1	-56	-0.4	-0.2	-0.9	-1.6	-0.1	-0.2	-0.2	-0.6	-0.0	-4.0	+0.0
5 Minimum price 45p	-22	-0.1	-0.3	-0.5	-0.1	-109	-0.7	-0.4	-1.8	-3.1	-0.3	-0.5	-0.4	-1.2	-0.0	-8.1	+0.0
6 Minimum price 50p	-35	-0.1	-0.5	-0.8	-0.2	-174	-1.2	-0.6	-2.9	-4.9	-0.6	-0.9	-0.7	-2.1	-0.0	-13.7	+0.0
7 Minimum price 55p	-49	-0.2	-0.7	-1.1	-0.3	-245	-1.7	-0.9	-4.1	-7.0	-0.8	-1.3	-1.0	-3.1	-0.0	-20.1	+0.0
8 Minimum price 60p	-64	-0.2	-0.9	-1.5	-0.3	-318	-2.2	-1.1	-5.4	-9.1	-1.1	-1.7	-1.3	-4.0	-0.0	-26.9	+0.0
9 Minimum price 65p	-80	-0.3	-1.2	-1.8	-0.4	-392	-2.8	-1.4	-6.7	-11.3	-1.3	-2.1	-1.6	-5.0	-0.0	-34.1	+0.0
10 Minimum price 70p	-95	-0.3	-1.5	-2.2	-0.5	-463	-3.3	-1.7	-8.1	-13.6	-1.6	-2.5	-1.9	-6.1	-0.0	-41.6	+0.0
11 Total off-trade discount ban	-16	-0.1	-0.2	-0.4	-0.1	-83	-0.5	-0.3	-1.3	-2.3	-0.3	-0.5	-0.4	-1.2	-0.0	-8.2	+0.0
12 Minimum price 25p + total off-t discount ba	-16	-0.0	-0.2	-0.4	-0.1	-82	-0.5	-0.3	-1.3	-2.3	-0.3	-0.5	-0.4	-1.2	-0.0	-8.2	+0.0
13 Minimum price 30p + total off-t discount ba	-16	-0.1	-0.2	-0.4	-0.1	-85	-0.6	-0.3	-1.4	-2.4	-0.3	-0.5	-0.4	-1.2	-0.0	-8.4	+0.0
14 Minimum price 35p + total off-t discount ba	-19	-0.1	-0.3	-0.4	-0.1	-99	-0.7	-0.3	-1.6	-2.8	-0.3	-0.5	-0.4	-1.3	-0.0	-9.5	+0.0
15 Minimum price 40p + total off-t discount ba	-25	-0.1	-0.4	-0.6	-0.1	-130	-0.9	-0.4	-2.1	-3.6	-0.4	-0.7	-0.5	-1.6	-0.0	-11.7	+0.0
16 Minimum price 45p + total off-t discount ba	-34	-0.1	-0.5	-0.8	-0.2	-173	-1.2	-0.6	-2.8	-4.9	-0.6	-0.9	-0.7	-2.1	-0.0	-15.1	+0.0
17 Minimum price 50p + total off-t discount ba	-45	-0.1	-0.7	-1.0	-0.2	-226	-1.5	-0.8	-3.7	-6.4	-0.8	-1.2	-0.9	-2.9	-0.0	-19.7	+0.0
18 Minimum price 55p + total off-t discount ba	-58	-0.2	-0.8	-1.3	-0.3	-287	-2.0	-1.0	-4.8	-8.2	-1.0	-1.5	-1.2	-3.7	-0.0	-25.2	+0.0
19 Minimum price 60p + total off-t discount ba	-71	-0.2	-1.1	-1.6	-0.4	-352	-2.5	-1.2	-6.0	-10.1	-1.2	-1.9	-1.4	-4.5	-0.0	-31.2	+0.0
20 Minimum price 65p + total off-t discount ba	-86	-0.3	-1.3	-2.0	-0.5	-420	-3.0	-1.5	-7.2	-12.2	-1.4	-2.3	-1.7	-5.4	-0.0	-38.0	+0.0
21 Minimum price 70p + total off-t discount ba	-100	-0.3	-1.5	-2.3	-0.5	-486	-3.5	-1.8	-8.5	-14.3	-1.7	-2.7	-2.0	-6.5	-0.0	-45.0	+0.0

Table A15.7: Summary tables for sensitivity analysis – protective effects of alcohol for CHD – harm analysis – hazardous drinkers

SUMMARY - HARMFUL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-2	-0.0	-0.0	-0.0	-0.0	-13	-0.1	-0.0	-0.2	-0.3	-0.0	-0.0	-0.0	-0.0	-0.0	-0.6	-0.1
2 Minimum price 30p	-5	-0.0	-0.0	-0.1	-0.0	-32	-0.2	-0.0	-0.6	-0.7	-0.0	-0.1	-0.1	-0.2	-0.0	-1.5	-0.2
3 Minimum price 35p	-10	-0.0	-0.1	-0.2	-0.0	-67	-0.5	-0.1	-1.1	-1.5	-0.1	-0.2	-0.1	-0.4	-0.0	-3.0	-0.4
4 Minimum price 40p	-18	-0.1	-0.2	-0.4	-0.1	-119	-0.9	-0.2	-2.0	-2.6	-0.2	-0.3	-0.2	-0.8	-0.0	-5.4	-0.8
5 Minimum price 45p	-28	-0.1	-0.3	-0.6	-0.1	-182	-1.3	-0.3	-3.0	-4.0	-0.3	-0.5	-0.4	-1.2	-0.0	-8.3	-1.2
6 Minimum price 50p	-39	-0.2	-0.4	-0.8	-0.2	-254	-1.9	-0.4	-4.2	-5.6	-0.4	-0.7	-0.5	-1.7	-0.0	-11.7	-1.7
7 Minimum price 55p	-50	-0.2	-0.5	-1.0	-0.2	-327	-2.4	-0.5	-5.3	-7.3	-0.6	-1.0	-0.7	-2.2	-0.0	-15.4	-2.2
8 Minimum price 60p	-61	-0.3	-0.6	-1.2	-0.2	-395	-2.9	-0.6	-6.4	-8.8	-0.7	-1.2	-0.8	-2.8	-0.0	-18.8	-2.6
9 Minimum price 65p	-72	-0.3	-0.7	-1.5	-0.3	-464	-3.3	-0.8	-7.5	-10.4	-0.8	-1.4	-1.0	-3.2	-0.0	-22.4	-3.0
10 Minimum price 70p	-82	-0.4	-0.8	-1.7	-0.3	-529	-3.8	-0.9	-8.5	-11.9	-1.0	-1.6	-1.1	-3.6	-0.0	-25.8	-3.3
11 Total off-trade discount ban	-10	-0.1	-0.1	-0.2	-0.0	-68	-0.5	-0.1	-1.2	-1.6	-0.1	-0.2	-0.2	-0.5	-0.0	-3.7	-0.6
12 Minimum price 25p + total off-t discount ba	-12	-0.1	-0.1	-0.3	-0.1	-80	-0.6	-0.1	-1.4	-1.8	-0.1	-0.2	-0.2	-0.5	-0.0	-4.3	-0.7
13 Minimum price 30p + total off-t discount ba	-14	-0.1	-0.1	-0.3	-0.1	-96	-0.7	-0.1	-1.6	-2.2	-0.2	-0.3	-0.2	-0.6	-0.0	-5.0	-0.8
14 Minimum price 35p + total off-t discount ba	-19	-0.1	-0.2	-0.4	-0.1	-127	-0.9	-0.2	-2.1	-2.8	-0.2	-0.3	-0.3	-0.8	-0.0	-6.3	-1.0
15 Minimum price 40p + total off-t discount ba	-26	-0.1	-0.3	-0.5	-0.1	-171	-1.3	-0.3	-2.9	-3.8	-0.3	-0.5	-0.4	-1.1	-0.0	-8.2	-1.2
16 Minimum price 45p + total off-t discount ba	-34	-0.2	-0.3	-0.7	-0.1	-226	-1.7	-0.3	-3.7	-5.0	-0.4	-0.6	-0.5	-1.5	-0.0	-10.8	-1.6
17 Minimum price 50p + total off-t discount ba	-44	-0.2	-0.4	-0.9	-0.2	-289	-2.1	-0.4	-4.7	-6.4	-0.5	-0.8	-0.6	-1.9	-0.0	-13.8	-2.0
18 Minimum price 55p + total off-t discount ba	-54	-0.3	-0.5	-1.1	-0.2	-355	-2.6	-0.6	-5.8	-7.9	-0.6	-1.0	-0.7	-2.4	-0.0	-17.1	-2.4
19 Minimum price 60p + total off-t discount ba	-64	-0.3	-0.6	-1.3	-0.3	-418	-3.0	-0.7	-6.8	-9.4	-0.8	-1.2	-0.9	-2.9	-0.0	-20.3	-2.8
20 Minimum price 65p + total off-t discount ba	-75	-0.3	-0.8	-1.5	-0.3	-484	-3.5	-0.8	-7.8	-10.9	-0.9	-1.4	-1.0	-3.3	-0.0	-23.6	-3.1
21 Minimum price 70p + total off-t discount ba	-85	-0.4	-0.9	-1.7	-0.4	-546	-3.9	-0.9	-8.8	-12.3	-1.0	-1.6	-1.1	-3.7	-0.0	-26.9	-3.3

Table A15.8: Summary tables for sensitivity analysis – protective effects of alcohol for CHD – harm analysis – harmful drinkers

SUMMARY - TOTAL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.0	+.2	-.0	-2.1	-2.0	+.2	+.1	-1.6	-2	+1	-	-18	-18	-8	+1	-25
2 Minimum price 30p	-0.4	+.1	-.1	-5.3	-5.7	-.8	+.1	-6.5	-9	+1	-1	-44	-54	-39	+1	-93
3 Minimum price 35p	-1.5	-.2	-.4	-11.0	-13.2	-3.7	-.2	-17.0	-28	-2	-4	-91	-125	-121	-2	-247
4 Minimum price 40p	-3.4	-1.0	-1.1	-19.4	-24.9	-8.5	-.7	-34.0	-60	-8	-9	-161	-238	-261	-6	-505
5 Minimum price 45p	-6.1	-2.1	-2.0	-29.6	-39.9	-15.2	-1.5	-56.6	-103	-18	-17	-246	-384	-448	-14	-846
6 Minimum price 50p	-9.3	-3.6	-3.2	-40.9	-57.0	-23.3	-2.6	-82.8	-154	-30	-27	-340	-551	-671	-24	-1,246
7 Minimum price 55p	-12.9	-5.3	-4.6	-52.2	-75.0	-32.5	-3.8	-111.2	-211	-44	-39	-434	-727	-916	-35	-1,677
8 Minimum price 60p	-16.6	-7.1	-6.1	-61.4	-91.2	-42.1	-5.0	-138.3	-268	-59	-51	-511	-889	-1,163	-46	-2,097
9 Minimum price 65p	-20.5	-8.9	-7.7	-69.8	-107.0	-52.1	-6.3	-165.3	-328	-74	-64	-581	-1,047	-1,417	-58	-2,521
10 Minimum price 70p	-24.6	-10.8	-9.4	-76.8	-121.4	-62.6	-7.6	-191.6	-388	-90	-78	-638	-1,194	-1,669	-70	-2,933
11 Total off-trade discount ban	-3.7	-2.1	-1.8	-14.1	-21.6	-9.7	-1.5	-32.8	-58	-17	-15	-117	-207	-257	-14	-477
12 Minimum price 25p + total off-t discount ban	-3.9	-2.0	-1.8	-15.8	-23.5	-10.1	-1.4	-35.0	-61	-16	-15	-132	-224	-271	-13	-508
13 Minimum price 30p + total off-t discount ban	-4.2	-2.0	-1.9	-18.3	-26.4	-10.9	-1.4	-38.7	-67	-16	-16	-152	-251	-298	-13	-562
14 Minimum price 35p + total off-t discount ban	-5.1	-2.2	-2.1	-22.7	-32.2	-13.1	-1.6	-46.9	-83	-18	-18	-189	-308	-365	-15	-687
15 Minimum price 40p + total off-t discount ban	-6.7	-2.7	-2.7	-29.4	-41.6	-17.2	-1.9	-60.7	-110	-23	-22	-245	-399	-482	-18	-900
16 Minimum price 45p + total off-t discount ban	-9.0	-3.6	-3.4	-37.9	-53.9	-22.8	-2.6	-79.3	-146	-30	-29	-315	-520	-640	-24	-1,183
17 Minimum price 50p + total off-t discount ban	-11.7	-4.8	-4.5	-47.3	-68.3	-29.6	-3.4	-101.4	-189	-40	-37	-394	-661	-829	-32	-1,521
18 Minimum price 55p + total off-t discount ban	-14.8	-6.3	-5.7	-56.7	-83.6	-37.7	-4.5	-125.7	-239	-52	-47	-472	-811	-1,043	-41	-1,895
19 Minimum price 60p + total off-t discount ban	-18.2	-7.9	-7.0	-64.9	-98.0	-46.4	-5.6	-150.0	-292	-66	-58	-539	-956	-1,268	-52	-2,275
20 Minimum price 65p + total off-t discount ban	-22.1	-9.6	-8.5	-72.4	-112.7	-56.4	-6.8	-175.8	-350	-80	-71	-602	-1,103	-1,512	-63	-2,678
21 Minimum price 70p + total off-t discount ban	-25.8	-11.4	-10.0	-78.7	-126.0	-65.8	-8.0	-199.8	-406	-95	-83	-655	-1,240	-1,747	-74	-3,060

Table A15.9: Summary tables for sensitivity analysis – protective effects of alcohol for CHD – financial value – overall population

SUMMARY - MODERATE	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.1	+.0	+.0	+.2	+.2	+.1	+.5	+	+1	+	+	+2	+1	+1	+4
2 Minimum price 30p	-0.1	+.2	+.0	+.0	+.2	-.0	+.2	+.3	-1	+2	+	+	+1	-5	+1	-2
3 Minimum price 35p	-0.3	+.3	-.0	+.0	-.1	-.8	+.2	-.7	-4	+2	-	+	-2	-21	+2	-22
4 Minimum price 40p	-0.9	+.2	-.2	+.0	-.9	-2.2	+.1	-3.0	-11	+1	-2	+	-11	-51	+1	-61
5 Minimum price 45p	-1.7	-.0	-.5	+.0	-2.2	-4.3	-.1	-6.6	-20	-	-4	+	-24	-94	-1	-119
6 Minimum price 50p	-2.7	-.3	-.8	+.0	-3.9	-6.8	-.3	-10.9	-31	-3	-7	+	-41	-145	-3	-188
7 Minimum price 55p	-3.8	-.7	-1.3	+.0	-5.9	-9.7	-.6	-16.2	-44	-6	-11	+	-61	-204	-5	-270
8 Minimum price 60p	-5.1	-1.2	-1.9	+.0	-8.1	-13.0	-.9	-22.0	-58	-10	-15	+	-83	-266	-9	-358
9 Minimum price 65p	-6.4	-1.8	-2.5	+.0	-10.6	-16.4	-1.3	-28.4	-73	-15	-20	+	-108	-331	-12	-452
10 Minimum price 70p	-7.7	-2.3	-3.1	+.0	-13.1	-19.9	-1.8	-34.7	-87	-19	-26	+	-132	-395	-16	-543
11 Total off-trade discount ban	-1.2	-.6	-.6	+.0	-2.5	-3.3	-.4	-6.2	-13	-5	-5	+	-24	-64	-4	-92
12 Minimum price 25p + total off-t discount ba	-1.3	-.5	-.6	+.0	-2.4	-3.3	-.4	-6.1	-14	-4	-5	+	-23	-65	-3	-92
13 Minimum price 30p + total off-t discount ba	-1.3	-.4	-.6	+.0	-2.4	-3.5	-.3	-6.2	-15	-3	-5	+	-23	-70	-3	-96
14 Minimum price 35p + total off-t discount ba	-1.6	-.4	-.7	+.0	-2.6	-4.1	-.3	-7.0	-18	-3	-6	+	-26	-84	-3	-113
15 Minimum price 40p + total off-t discount ba	-2.1	-.4	-.8	+.0	-3.2	-5.3	-.3	-8.8	-23	-3	-7	+	-33	-109	-3	-145
16 Minimum price 45p + total off-t discount ba	-2.7	-.5	-1.0	+.0	-4.3	-6.9	-.4	-11.6	-31	-5	-8	+	-44	-144	-4	-192
17 Minimum price 50p + total off-t discount ba	-3.5	-.8	-1.3	+.0	-5.6	-9.0	-.6	-15.2	-40	-6	-11	+	-57	-187	-5	-249
18 Minimum price 55p + total off-t discount ba	-4.5	-1.1	-1.7	+.0	-7.3	-11.6	-.8	-19.7	-51	-9	-14	+	-75	-238	-8	-320
19 Minimum price 60p + total off-t discount ba	-5.6	-1.5	-2.2	+.0	-9.3	-14.5	-1.1	-25.0	-64	-13	-18	+	-95	-294	-11	-399
20 Minimum price 65p + total off-t discount ba	-6.9	-2.0	-2.8	+.0	-11.7	-17.9	-1.5	-31.1	-78	-17	-23	+	-118	-357	-14	-489
21 Minimum price 70p + total off-t discount ba	-8.1	-2.5	-3.3	+.0	-14.0	-21.0	-1.9	-36.9	-92	-21	-28	+	-141	-415	-18	-574

Table A15.10: Summary tables for sensitivity analysis protective effects of alcohol for CHD – financial value – moderate drinkers

SUMMARY - HAZARDOUS	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.0	+.0	+.0	+.2	+.4	+.0	+.6	+1	+	+	+	+2	+6	+	+8
2 Minimum price 30p	+0.1	+.0	-.0	+.0	+.1	+.2	+.0	+.3	+	+	-	+	+	+	+	+1
3 Minimum price 35p	-0.3	-.1	-.1	+.0	-.6	-.9	-.1	-1.6	-6	-1	-1	+	-8	-26	-1	-35
4 Minimum price 40p	-1.1	-.5	-.4	+.0	-1.9	-2.7	-.3	-4.9	-18	-4	-3	+	-25	-78	-3	-106
5 Minimum price 45p	-2.1	-1.0	-.7	+.0	-3.9	-5.3	-.7	-10.0	-36	-9	-6	+	-50	-153	-7	-209
6 Minimum price 50p	-3.4	-1.8	-1.2	+.0	-6.5	-8.7	-1.2	-16.4	-57	-15	-10	+	-82	-245	-11	-338
7 Minimum price 55p	-4.9	-2.6	-1.8	+.0	-9.4	-12.5	-1.8	-23.7	-82	-22	-15	+	-119	-348	-16	-483
8 Minimum price 60p	-6.5	-3.4	-2.4	+.0	-12.4	-16.6	-2.3	-31.3	-108	-28	-20	+	-156	-455	-21	-633
9 Minimum price 65p	-8.2	-4.2	-3.1	+.0	-15.5	-20.8	-2.9	-39.2	-135	-35	-26	+	-195	-565	-27	-787
10 Minimum price 70p	-10.0	-5.1	-3.8	+.0	-18.9	-25.6	-3.5	-48.0	-163	-43	-31	+	-237	-679	-33	-949
11 Total off-trade discount ban	-1.6	-1.0	-.8	+.0	-3.4	-4.2	-.7	-8.3	-26	-8	-6	+	-41	-114	-7	-161
12 Minimum price 25p + total off-t discount ba	-1.6	-1.0	-.8	+.0	-3.3	-4.2	-.7	-8.2	-26	-8	-6	+	-40	-114	-6	-160
13 Minimum price 30p + total off-t discount ba	-1.7	-1.0	-.8	+.0	-3.4	-4.4	-.7	-8.5	-27	-8	-7	+	-42	-118	-6	-167
14 Minimum price 35p + total off-t discount ba	-1.9	-1.1	-.9	+.0	-3.9	-5.0	-.8	-9.7	-32	-9	-7	+	-48	-139	-7	-194
15 Minimum price 40p + total off-t discount ba	-2.5	-1.4	-1.1	+.0	-5.0	-6.6	-.9	-12.5	-42	-11	-9	+	-62	-182	-9	-252
16 Minimum price 45p + total off-t discount ba	-3.4	-1.8	-1.4	+.0	-6.6	-8.8	-1.2	-16.6	-56	-15	-11	+	-83	-244	-12	-338
17 Minimum price 50p + total off-t discount ba	-4.5	-2.4	-1.8	+.0	-8.7	-11.6	-1.7	-22.0	-75	-20	-15	+	-110	-320	-15	-445
18 Minimum price 55p + total off-t discount ba	-5.8	-3.1	-2.3	+.0	-11.2	-14.9	-2.1	-28.3	-96	-26	-19	+	-141	-409	-20	-569
19 Minimum price 60p + total off-t discount ba	-7.3	-3.8	-2.8	+.0	-13.9	-18.6	-2.6	-35.2	-119	-32	-24	+	-175	-505	-24	-704
20 Minimum price 65p + total off-t discount ba	-9.0	-4.6	-3.5	+.0	-17.0	-22.9	-3.2	-43.1	-146	-38	-29	+	-213	-612	-29	-854
21 Minimum price 70p + total off-t discount ba	-10.6	-5.5	-4.1	+.0	-20.1	-27.1	-3.8	-51.0	-172	-45	-34	+	-252	-715	-35	-1,001

Table A15.11: Summary tables for sensitivity analysis – protective effects of alcohol for CHD – financial value – hazardous drinkers

SUMMARY - HARMFUL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	-0.2	-.0	-.1	-2.1	-2.4	-.4	-.0	-2.8	-3	-	-1	-18	-22	-14	-	-37
2 Minimum price 30p	-0.4	-.1	-.1	-5.4	-6.0	-1.0	-.1	-7.1	-8	-1	-1	-45	-55	-35	-1	-91
3 Minimum price 35p	-0.8	-.4	-.3	-11.0	-12.5	-2.0	-.3	-14.8	-18	-3	-2	-92	-115	-74	-2	-191
4 Minimum price 40p	-1.5	-.7	-.5	-19.4	-22.1	-3.6	-.5	-26.2	-31	-6	-4	-161	-202	-132	-4	-338
5 Minimum price 45p	-2.3	-1.0	-.8	-29.6	-33.7	-5.6	-.7	-40.0	-47	-9	-7	-246	-309	-202	-7	-517
6 Minimum price 50p	-3.2	-1.5	-1.1	-40.9	-46.7	-7.8	-1.0	-55.5	-66	-12	-9	-340	-428	-282	-10	-719
7 Minimum price 55p	-4.1	-1.9	-1.5	-52.2	-59.7	-10.2	-1.4	-71.3	-85	-16	-12	-434	-547	-364	-13	-924
8 Minimum price 60p	-5.0	-2.4	-1.8	-61.4	-70.6	-12.4	-1.7	-84.7	-102	-20	-15	-511	-648	-441	-16	-1,105
9 Minimum price 65p	-5.9	-2.8	-2.2	-69.8	-80.6	-14.7	-2.0	-97.3	-120	-23	-18	-581	-742	-520	-18	-1,280
10 Minimum price 70p	-6.8	-3.1	-2.5	-76.8	-89.1	-16.9	-2.2	-108.3	-137	-26	-21	-638	-822	-594	-20	-1,437
11 Total off-trade discount ban	-0.9	-.4	-.4	-14.1	-15.7	-2.2	-.3	-18.3	-18	-4	-3	-117	-142	-78	-3	-223
12 Minimum price 25p + total off-t discount ba	-1.0	-.5	-.4	-15.8	-17.7	-2.6	-.3	-20.6	-21	-4	-3	-132	-160	-91	-3	-255
13 Minimum price 30p + total off-t discount ba	-1.2	-.5	-.5	-18.3	-20.5	-3.0	-.4	-24.0	-25	-5	-4	-152	-186	-109	-4	-298
14 Minimum price 35p + total off-t discount ba	-1.6	-.7	-.6	-22.7	-25.6	-4.0	-.5	-30.1	-33	-6	-5	-189	-233	-142	-5	-380
15 Minimum price 40p + total off-t discount ba	-2.1	-1.0	-.8	-29.4	-33.3	-5.3	-.7	-39.3	-44	-8	-7	-245	-304	-191	-6	-501
16 Minimum price 45p + total off-t discount ba	-2.8	-1.3	-1.0	-37.9	-43.0	-7.0	-.9	-50.9	-59	-11	-9	-315	-393	-252	-8	-653
17 Minimum price 50p + total off-t discount ba	-3.6	-1.6	-1.3	-47.3	-53.9	-9.0	-1.2	-64.1	-75	-14	-11	-394	-493	-322	-11	-826
18 Minimum price 55p + total off-t discount ba	-4.5	-2.1	-1.7	-56.7	-64.9	-11.1	-1.5	-77.6	-92	-17	-14	-472	-595	-396	-14	-1,005
19 Minimum price 60p + total off-t discount ba	-5.3	-2.5	-2.0	-64.9	-74.6	-13.2	-1.8	-89.6	-108	-21	-16	-539	-685	-468	-16	-1,169
20 Minimum price 65p + total off-t discount ba	-6.2	-2.9	-2.3	-72.4	-83.7	-15.4	-2.0	-101.2	-125	-24	-19	-602	-771	-543	-19	-1,332
21 Minimum price 70p + total off-t discount ba	-7.0	-3.2	-2.6	-78.7	-91.6	-17.6	-2.3	-111.4	-142	-27	-22	-655	-845	-614	-21	-1,480

Table A15.12: Summary tables for sensitivity analysis – protective effects of alcohol for CHD – financial value – harmful drinkers

Appendix 16: Summary tables for sensitivity analysis – higher crime AAFs

SUMMARY - TOTAL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.2%	-1.9	+1.5	-1.0	+0.0	-1.3	+8.4	+6.4	-0.6	+2.0	+16.1	+0.7%	+4.20	+2.13
2 Minimum price 30p	-0.5%	-4.1	+3.3	-3.2	+0.0	-4.0	+17.8	+12.9	-2.3	+4.0	+32.4	+1.3%	+8.46	+5.24
3 Minimum price 35p	-1.3%	-6.8	+4.6	-8.4	+0.0	-10.5	+32.8	+21.5	-6.6	+6.7	+54.4	+2.2%	+14.20	+11.42
4 Minimum price 40p	-2.7%	-9.9	+3.3	-15.8	+0.0	-22.3	+53.9	+32.7	-14.2	+10.1	+82.6	+3.4%	+21.54	+21.84
5 Minimum price 45p	-4.7%	-13.8	+0.2	-25.1	+0.1	-38.6	+77.2	+45.3	-24.9	+14.0	+111.7	+4.6%	+29.13	+36.03
6 Minimum price 50p	-7.2%	-18.3	-5.3	-35.1	+0.1	-58.7	+99.9	+59.0	-38.5	+18.2	+138.6	+5.7%	+36.16	+53.44
7 Minimum price 55p	-10.0%	-22.4	-13.8	-45.4	+0.0	-81.6	+121.2	+73.9	-54.2	+22.7	+163.5	+6.7%	+42.66	+73.94
8 Minimum price 60p	-12.9%	-24.9	-24.0	-56.0	+0.0	-104.9	+139.6	+90.1	-70.8	+27.3	+186.2	+7.7%	+48.57	+96.60
9 Minimum price 65p	-15.9%	-27.5	-35.5	-66.4	-0.0	-129.5	+151.2	+107.7	-89.2	+32.0	+201.7	+8.3%	+52.63	+120.75
10 Minimum price 70p	-18.9%	-30.3	-47.8	-75.7	-0.0	-153.9	+155.5	+125.7	-108.3	+36.8	+209.8	+8.6%	+54.73	+145.61
11 Total off-trade discount ban	-3.0%	-4.9	-14.9	-4.6	-0.1	-24.5	+48.6	+11.0	-11.0	+3.4	+52.0	+2.1%	+13.57	+23.62
12 Minimum price 25p + total off-t discount ban	-3.2%	-6.3	-13.8	-5.6	-0.1	-25.8	+55.3	+16.5	-11.8	+5.1	+65.2	+2.7%	+17.00	+25.45
13 Minimum price 30p + total off-t discount ban	-3.5%	-7.9	-12.5	-7.7	-0.1	-28.1	+62.7	+21.9	-13.4	+6.8	+78.0	+3.2%	+20.34	+27.93
14 Minimum price 35p + total off-t discount ban	-4.1%	-9.6	-11.6	-12.5	-0.1	-33.7	+74.5	+29.3	-17.4	+9.1	+95.6	+3.9%	+24.94	+32.99
15 Minimum price 40p + total off-t discount ban	-5.4%	-11.7	-12.7	-19.1	-0.1	-43.7	+90.6	+39.3	-24.2	+12.2	+117.8	+4.8%	+30.74	+41.59
16 Minimum price 45p + total off-t discount ban	-7.1%	-14.8	-15.2	-27.5	-0.1	-57.6	+107.9	+50.7	-34.0	+15.7	+140.3	+5.8%	+36.61	+53.45
17 Minimum price 50p + total off-t discount ban	-9.2%	-18.8	-19.3	-36.6	-0.1	-74.8	+123.9	+63.3	-46.4	+19.6	+160.5	+6.6%	+41.86	+68.13
18 Minimum price 55p + total off-t discount ban	-11.7%	-22.5	-25.9	-46.4	-0.1	-94.9	+138.6	+77.4	-61.0	+23.8	+178.7	+7.3%	+46.62	+85.99
19 Minimum price 60p + total off-t discount ban	-14.3%	-24.8	-34.5	-56.8	-0.1	-116.2	+151.6	+93.1	-77.1	+28.2	+195.8	+8.0%	+51.07	+106.67
20 Minimum price 65p + total off-t discount ban	-17.1%	-27.3	-44.8	-67.1	-0.1	-139.3	+158.9	+110.2	-95.0	+32.8	+206.9	+8.5%	+53.97	+129.37
21 Minimum price 70p + total off-t discount ban	-20.0%	-30.0	-56.2	-76.3	-0.2	-162.7	+159.7	+127.9	-113.9	+37.5	+211.3	+8.7%	+55.12	+153.15

Table A16.1: Summary tables for sensitivity analysis – higher crime AAFs – consumption analysis – overall population

SUMMARY - MODERATE	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	+0.0%	-0.0	+0.1	-0.1	+0.0	+0.0	+1.0	+1.2	-0.0	+0.4	+2.5	+0.3%	+1.01	+0.42
2 Minimum price 30p	-0.1%	+0.0	+0.3	-0.6	+0.0	-0.3	+2.4	+2.5	-0.2	+0.8	+5.4	+0.8%	+2.21	+1.12
3 Minimum price 35p	-0.5%	+0.1	+0.2	-1.8	+0.0	-1.6	+5.1	+4.2	-0.8	+1.3	+9.9	+1.4%	+4.07	+2.80
4 Minimum price 40p	-1.3%	+0.1	-0.7	-3.6	+0.0	-4.1	+9.4	+6.4	-1.7	+1.9	+16.1	+2.2%	+6.62	+5.77
5 Minimum price 45p	-2.5%	-0.0	-2.0	-5.9	+0.0	-7.8	+14.9	+8.9	-3.1	+2.7	+23.4	+3.3%	+9.63	+10.07
6 Minimum price 50p	-3.9%	-0.2	-3.9	-8.5	+0.0	-12.6	+21.1	+11.6	-4.9	+3.5	+31.3	+4.4%	+12.89	+15.54
7 Minimum price 55p	-5.7%	-0.5	-6.6	-11.3	-0.0	-18.4	+27.7	+14.5	-7.1	+4.4	+39.5	+5.5%	+16.27	+22.16
8 Minimum price 60p	-7.7%	-0.9	-9.7	-14.2	-0.0	-24.8	+33.9	+17.7	-9.6	+5.3	+47.3	+6.6%	+19.48	+29.62
9 Minimum price 65p	-9.9%	-1.3	-13.1	-17.2	-0.0	-31.8	+39.1	+21.3	-12.6	+6.3	+54.1	+7.6%	+22.30	+37.73
10 Minimum price 70p	-12.1%	-1.7	-16.7	-20.3	-0.1	-38.8	+43.1	+25.0	-15.7	+7.3	+59.7	+8.4%	+24.60	+46.14
11 Total off-trade discount ban	-2.1%	-0.5	-4.5	-1.5	-0.1	-6.6	+11.8	+2.2	-1.5	+0.7	+13.2	+1.8%	+5.42	+8.31
12 Minimum price 25p + total off-t discount ba	-2.1%	-0.6	-4.4	-1.6	-0.1	-6.7	+12.6	+3.2	-1.5	+1.0	+15.2	+2.1%	+6.26	+8.68
13 Minimum price 30p + total off-t discount ba	-2.2%	-0.5	-4.3	-2.1	-0.1	-6.9	+13.7	+4.2	-1.7	+1.3	+17.6	+2.5%	+7.24	+9.25
14 Minimum price 35p + total off-t discount ba	-2.5%	-0.3	-4.4	-3.2	-0.1	-8.0	+16.0	+5.8	-2.2	+1.8	+21.3	+3.0%	+8.77	+10.64
15 Minimum price 40p + total off-t discount ba	-3.2%	-0.2	-5.1	-4.8	-0.1	-10.1	+19.4	+7.7	-3.1	+2.3	+26.4	+3.7%	+10.86	+13.11
16 Minimum price 45p + total off-t discount ba	-4.1%	-0.2	-6.2	-6.8	-0.1	-13.2	+23.6	+10.0	-4.4	+3.0	+32.2	+4.5%	+13.27	+16.65
17 Minimum price 50p + total off-t discount ba	-5.4%	-0.3	-7.7	-9.2	-0.1	-17.2	+28.2	+12.5	-6.0	+3.8	+38.5	+5.4%	+15.86	+21.20
18 Minimum price 55p + total off-t discount ba	-6.9%	-0.5	-9.8	-11.7	-0.1	-22.2	+33.2	+15.2	-8.0	+4.6	+45.0	+6.3%	+18.54	+26.88
19 Minimum price 60p + total off-t discount ba	-8.8%	-0.8	-12.5	-14.6	-0.1	-28.0	+38.1	+18.3	-10.5	+5.5	+51.4	+7.2%	+21.18	+33.61
20 Minimum price 65p + total off-t discount ba	-10.8%	-1.3	-15.6	-17.6	-0.1	-34.5	+42.2	+21.8	-13.4	+6.4	+57.1	+8.0%	+23.54	+41.16
21 Minimum price 70p + total off-t discount ba	-12.9%	-1.6	-18.9	-20.6	-0.1	-41.2	+45.4	+25.5	-16.5	+7.4	+61.9	+8.7%	+25.49	+49.15

Table A16.2: Summary tables for sensitivity analysis – higher crime AAFs – consumption analysis – moderate drinkers

SUMMARY - HAZARDOUS	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	+0.0%	-2.2	+4.3	-1.5	+0.0	+0.7	+3.7	+2.9	+0.2	+0.9	+7.7	+0.8%	+8.05	+3.16
2 Minimum price 30p	-0.1%	-4.8	+9.0	-5.0	+0.1	-0.8	+7.8	+6.0	-0.1	+1.9	+15.6	+1.5%	+16.35	+7.85
3 Minimum price 35p	-0.6%	-7.8	+12.6	-13.4	+0.1	-8.6	+14.4	+9.9	-1.4	+3.1	+26.1	+2.6%	+27.32	+17.64
4 Minimum price 40p	-1.9%	-11.5	+11.4	-26.3	+0.1	-26.2	+24.0	+15.3	-4.2	+4.7	+39.7	+3.9%	+41.68	+35.28
5 Minimum price 45p	-3.7%	-16.5	+6.2	-42.7	+0.1	-52.9	+34.7	+21.3	-8.7	+6.6	+53.9	+5.4%	+56.54	+60.01
6 Minimum price 50p	-6.2%	-22.6	-4.6	-60.5	+0.2	-87.6	+45.3	+27.8	-14.5	+8.6	+67.2	+6.7%	+70.43	+90.92
7 Minimum price 55p	-9.1%	-27.5	-22.0	-78.8	+0.2	-128.1	+55.6	+34.9	-21.5	+10.8	+79.8	+7.9%	+83.65	+128.06
8 Minimum price 60p	-12.1%	-30.3	-43.4	-97.4	+0.2	-170.9	+64.3	+42.6	-29.1	+13.0	+90.8	+9.0%	+95.20	+169.21
9 Minimum price 65p	-15.3%	-33.6	-67.5	-115.4	+0.2	-216.4	+69.6	+50.9	-37.6	+15.2	+98.2	+9.7%	+102.94	+212.97
10 Minimum price 70p	-18.6%	-37.5	-93.5	-131.7	+0.1	-262.5	+71.1	+59.3	-46.6	+17.5	+101.4	+10.1%	+106.28	+257.95
11 Total off-trade discount ban	-3.3%	-6.9	-31.4	-8.3	-0.2	-46.8	+21.8	+5.4	-5.5	+1.7	+23.4	+2.3%	+24.53	+44.24
12 Minimum price 25p + total off-t discount ba	-3.3%	-8.7	-28.2	-9.8	-0.1	-46.8	+24.8	+7.9	-5.5	+2.4	+29.7	+2.9%	+31.14	+46.97
13 Minimum price 30p + total off-t discount ba	-3.4%	-10.3	-24.9	-13.2	-0.1	-48.4	+28.2	+10.4	-5.8	+3.2	+36.0	+3.6%	+37.78	+50.73
14 Minimum price 35p + total off-t discount ba	-3.9%	-12.0	-22.1	-20.9	-0.1	-55.1	+33.4	+13.8	-7.0	+4.3	+44.5	+4.4%	+46.71	+58.71
15 Minimum price 40p + total off-t discount ba	-4.9%	-14.2	-23.3	-32.4	-0.1	-69.9	+40.8	+18.5	-9.6	+5.8	+55.5	+5.5%	+58.16	+73.16
16 Minimum price 45p + total off-t discount ba	-6.5%	-18.0	-27.3	-47.0	-0.0	-92.3	+48.8	+24.0	-13.6	+7.4	+66.6	+6.6%	+69.81	+93.59
17 Minimum price 50p + total off-t discount ba	-8.6%	-23.2	-35.1	-63.1	-0.0	-121.4	+56.2	+30.0	-18.9	+9.3	+76.6	+7.6%	+80.29	+119.35
18 Minimum price 55p + total off-t discount ba	-11.0%	-27.5	-48.3	-80.5	-0.0	-156.3	+63.2	+36.6	-25.3	+11.3	+85.9	+8.5%	+90.08	+151.28
19 Minimum price 60p + total off-t discount ba	-13.8%	-29.9	-66.1	-98.8	-0.0	-194.8	+69.3	+44.0	-32.5	+13.4	+94.2	+9.4%	+98.76	+188.52
20 Minimum price 65p + total off-t discount ba	-16.8%	-33.0	-87.6	-116.6	-0.0	-237.2	+72.5	+52.1	-40.8	+15.6	+99.4	+9.9%	+104.20	+229.45
21 Minimum price 70p + total off-t discount ba	-19.9%	-36.8	-111.6	-132.7	-0.0	-281.2	+72.2	+60.4	-49.7	+17.9	+100.8	+10.0%	+105.65	+272.32

Table A16.3: Summary tables for sensitivity analysis – higher crime AAFs – consumption analysis – hazardous drinkers

SUMMARY - HARMFUL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.6%	-19.3	+5.8	-7.3	+0.1	-20.7	+3.9	+2.4	-0.8	+0.7	+6.2	+1.1%	+22.82	+15.75
2 Minimum price 30p	-1.5%	-43.5	+13.9	-22.1	+0.1	-51.7	+8.0	+4.5	-2.0	+1.4	+11.9	+2.0%	+43.64	+37.60
3 Minimum price 35p	-3.2%	-71.4	+20.0	-56.6	+0.0	-108.0	+14.1	+7.4	-4.5	+2.3	+19.3	+3.3%	+70.51	+77.38
4 Minimum price 40p	-5.7%	-104.0	+12.9	-103.0	+0.0	-194.1	+21.9	+11.1	-8.5	+3.5	+28.0	+4.8%	+102.29	+139.20
5 Minimum price 45p	-8.9%	-142.0	-1.7	-158.7	-0.0	-302.4	+29.6	+15.2	-13.6	+4.8	+35.9	+6.2%	+131.11	+218.32
6 Minimum price 50p	-12.6%	-183.7	-27.2	-217.2	-0.1	-428.2	+35.9	+19.6	-19.9	+6.1	+41.8	+7.2%	+152.59	+310.93
7 Minimum price 55p	-16.6%	-221.5	-63.9	-277.1	-0.3	-562.7	+40.8	+24.3	-26.8	+7.5	+45.8	+7.8%	+167.21	+414.79
8 Minimum price 60p	-20.4%	-243.1	-108.5	-338.6	-0.5	-690.6	+44.5	+29.3	-33.7	+9.0	+49.2	+8.4%	+179.54	+526.71
9 Minimum price 65p	-24.3%	-263.1	-158.6	-400.4	-0.7	-822.8	+45.6	+34.7	-41.2	+10.5	+49.6	+8.5%	+181.03	+644.58
10 Minimum price 70p	-28.0%	-284.9	-213.3	-450.4	-1.0	-949.6	+44.3	+40.2	-48.6	+12.0	+47.8	+8.2%	+174.74	+765.51
11 Total off-trade discount ban	-3.8%	-41.1	-62.6	-23.4	-0.7	-127.8	+15.8	+3.3	-4.2	+1.1	+15.9	+2.7%	+58.11	+108.09
12 Minimum price 25p + total off-t discount ba	-4.3%	-56.2	-58.9	-30.7	-0.6	-146.4	+18.8	+5.4	-5.0	+1.7	+20.9	+3.6%	+76.51	+121.57
13 Minimum price 30p + total off-t discount ba	-5.1%	-73.6	-53.4	-44.6	-0.6	-172.2	+21.9	+7.2	-6.1	+2.3	+25.3	+4.3%	+92.30	+138.88
14 Minimum price 35p + total off-t discount ba	-6.5%	-93.8	-49.1	-76.6	-0.6	-220.2	+26.6	+9.7	-8.5	+3.1	+30.9	+5.3%	+113.01	+171.55
15 Minimum price 40p + total off-t discount ba	-8.7%	-118.7	-55.5	-119.1	-0.7	-293.9	+32.4	+13.0	-12.0	+4.1	+37.5	+6.4%	+137.01	+223.00
16 Minimum price 45p + total off-t discount ba	-11.5%	-150.2	-67.3	-170.0	-0.7	-388.2	+38.0	+16.8	-16.8	+5.3	+43.3	+7.4%	+158.14	+290.30
17 Minimum price 50p + total off-t discount ba	-14.7%	-187.7	-86.9	-223.7	-0.8	-499.1	+42.3	+20.9	-22.5	+6.5	+47.2	+8.1%	+172.31	+370.31
18 Minimum price 55p + total off-t discount ba	-18.3%	-222.7	-116.2	-281.0	-0.9	-620.9	+45.3	+25.3	-29.1	+7.9	+49.4	+8.5%	+180.37	+463.16
19 Minimum price 60p + total off-t discount ba	-21.8%	-242.7	-154.3	-341.8	-1.1	-740.0	+47.6	+30.2	-35.8	+9.3	+51.2	+8.8%	+187.19	+567.11
20 Minimum price 65p + total off-t discount ba	-25.5%	-262.1	-199.5	-403.0	-1.3	-865.9	+47.4	+35.4	-43.1	+10.8	+50.4	+8.6%	+184.22	+679.20
21 Minimum price 70p + total off-t discount ba	-29.1%	-283.6	-250.4	-452.5	-1.6	-988.1	+45.1	+40.8	-50.4	+12.2	+47.7	+8.2%	+174.19	+795.77

Table A16.4: Summary tables for sensitivity analysis – higher crime AAFs – consumption analysis – harmful drinkers

SUMMARY - TOTAL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-1	-0.0	+0.0	-0.0	+0.0	-14	-0.1	+0.0	-0.2	-0.2	+0.1	+0.1	+0.1	+0.3	+0.0	-0.2	-0.1
2 Minimum price 30p	-6	-0.0	-0.0	-0.1	-0.0	-41	-0.3	-0.0	-0.7	-0.9	+0.1	+0.0	+0.0	+0.1	+0.0	-1.3	-0.2
3 Minimum price 35p	-18	-0.1	-0.2	-0.4	-0.1	-104	-0.8	-0.2	-1.8	-2.7	-0.2	-0.2	-0.3	-0.7	-0.0	-4.7	-0.4
4 Minimum price 40p	-39	-0.2	-0.5	-0.8	-0.2	-213	-1.5	-0.5	-3.6	-5.7	-0.7	-0.8	-1.0	-2.4	-0.0	-11.6	-0.8
5 Minimum price 45p	-68	-0.3	-0.9	-1.5	-0.3	-354	-2.5	-1.0	-6.0	-9.8	-1.4	-1.7	-1.9	-5.0	-0.0	-21.7	-1.2
6 Minimum price 50p	-101	-0.4	-1.3	-2.2	-0.5	-520	-3.7	-1.5	-8.9	-14.6	-2.4	-2.8	-3.3	-8.4	-0.1	-34.6	-1.7
7 Minimum price 55p	-137	-0.5	-1.9	-3.0	-0.7	-695	-5.0	-2.0	-12.0	-19.9	-3.5	-4.1	-4.8	-12.4	-0.1	-49.9	-2.2
8 Minimum price 60p	-174	-0.6	-2.4	-3.9	-0.9	-866	-6.3	-2.6	-15.1	-25.2	-4.7	-5.4	-6.4	-16.6	-0.2	-66.1	-2.6
9 Minimum price 65p	-212	-0.7	-3.0	-4.8	-1.1	-1039	-7.5	-3.3	-18.2	-30.7	-6.0	-6.8	-8.1	-20.9	-0.2	-83.5	-3.0
10 Minimum price 70p	-248	-0.8	-3.6	-5.7	-1.3	-1204	-8.8	-3.9	-21.3	-36.1	-7.2	-8.2	-9.8	-25.3	-0.2	-101.0	-3.3
11 Total off-trade discount ban	-37	-0.1	-0.5	-0.9	-0.2	-182	-1.3	-0.6	-3.2	-5.5	-1.4	-1.5	-1.9	-4.8	-0.0	-18.8	-0.6
12 Minimum price 25p + total off-t discount ban	-39	-0.1	-0.6	-0.9	-0.2	-196	-1.4	-0.6	-3.4	-5.8	-1.3	-1.4	-1.9	-4.6	-0.0	-19.2	-0.7
13 Minimum price 30p + total off-t discount ban	-43	-0.2	-0.6	-1.0	-0.2	-219	-1.6	-0.6	-3.8	-6.4	-1.3	-1.5	-1.9	-4.7	-0.0	-20.1	-0.8
14 Minimum price 35p + total off-t discount ban	-53	-0.2	-0.7	-1.2	-0.3	-274	-2.0	-0.8	-4.7	-7.9	-1.5	-1.7	-2.2	-5.3	-0.0	-23.0	-1.0
15 Minimum price 40p + total off-t discount ban	-71	-0.3	-1.0	-1.6	-0.3	-365	-2.6	-1.0	-6.3	-10.5	-1.8	-2.1	-2.6	-6.5	-0.1	-28.6	-1.2
16 Minimum price 45p + total off-t discount ban	-95	-0.3	-1.3	-2.1	-0.5	-484	-3.5	-1.4	-8.3	-13.9	-2.4	-2.7	-3.4	-8.6	-0.1	-37.0	-1.6
17 Minimum price 50p + total off-t discount ban	-123	-0.4	-1.7	-2.8	-0.6	-624	-4.5	-1.8	-10.8	-18.0	-3.2	-3.7	-4.5	-11.4	-0.1	-47.9	-2.0
18 Minimum price 55p + total off-t discount ban	-155	-0.5	-2.1	-3.5	-0.8	-778	-5.6	-2.3	-13.5	-22.6	-4.2	-4.8	-5.8	-14.8	-0.1	-61.0	-2.4
19 Minimum price 60p + total off-t discount ban	-189	-0.7	-2.7	-4.3	-0.9	-934	-6.8	-2.9	-16.3	-27.4	-5.3	-6.0	-7.3	-18.6	-0.2	-75.6	-2.8
20 Minimum price 65p + total off-t discount ban	-225	-0.8	-3.2	-5.1	-1.1	-1096	-8.0	-3.5	-19.3	-32.7	-6.5	-7.3	-8.9	-22.6	-0.2	-91.7	-3.1
21 Minimum price 70p + total off-t discount ban	-259	-0.9	-3.8	-6.0	-1.3	-1252	-9.2	-4.1	-22.3	-37.7	-7.7	-8.7	-10.5	-26.8	-0.2	-108.3	-3.3

Table A16.5: Summary tables for sensitivity analysis – higher crime AAFs – harm analysis – overall population

SUMMARY - MODERATE	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	+0	-0.0	+0.0	+0.0	+0.0	+0	-0.0	+0.0	-0.0	+0.0	+0.1	+0.1	+0.1	+0.3	+0.0	+0.3	+0.0
2 Minimum price 30p	-1	-0.0	-0.0	-0.0	-0.0	-1	-0.0	-0.0	-0.0	-0.1	+0.2	+0.2	+0.2	+0.5	+0.0	+0.4	+0.0
3 Minimum price 35p	-3	-0.0	-0.1	-0.1	-0.0	-4	-0.1	-0.1	-0.2	-0.5	+0.2	+0.2	+0.2	+0.6	+0.0	-0.3	+0.0
4 Minimum price 40p	-7	-0.0	-0.2	-0.2	-0.0	-9	-0.1	-0.2	-0.4	-1.1	+0.1	+0.1	+0.1	+0.4	+0.0	-2.2	+0.0
5 Minimum price 45p	-14	-0.0	-0.3	-0.4	-0.1	-16	-0.2	-0.3	-0.7	-2.0	-0.0	+0.0	-0.1	-0.1	-0.0	-5.2	+0.0
6 Minimum price 50p	-21	-0.0	-0.5	-0.6	-0.1	-24	-0.3	-0.5	-1.1	-3.1	-0.2	-0.2	-0.3	-0.7	-0.0	-9.2	+0.0
7 Minimum price 55p	-30	-0.0	-0.6	-0.8	-0.2	-33	-0.5	-0.7	-1.6	-4.4	-0.5	-0.4	-0.6	-1.6	-0.0	-14.4	+0.0
8 Minimum price 60p	-39	-0.1	-0.9	-1.1	-0.3	-43	-0.6	-0.9	-2.1	-5.7	-0.8	-0.8	-1.0	-2.6	-0.0	-20.3	+0.0
9 Minimum price 65p	-48	-0.1	-1.1	-1.4	-0.3	-53	-0.7	-1.1	-2.6	-7.1	-1.2	-1.1	-1.5	-3.8	-0.0	-26.8	+0.0
10 Minimum price 70p	-57	-0.1	-1.3	-1.6	-0.4	-62	-0.9	-1.4	-3.1	-8.4	-1.6	-1.5	-1.9	-5.0	-0.1	-33.3	+0.0
11 Total off-trade discount ban	-9	-0.0	-0.2	-0.3	-0.1	-11	-0.1	-0.2	-0.5	-1.4	-0.4	-0.4	-0.5	-1.3	-0.0	-6.9	+0.0
12 Minimum price 25p + total off-t discount ba	-9	-0.0	-0.2	-0.3	-0.1	-11	-0.1	-0.2	-0.5	-1.4	-0.3	-0.3	-0.4	-1.1	-0.0	-6.7	+0.0
13 Minimum price 30p + total off-t discount ba	-10	-0.0	-0.2	-0.3	-0.1	-12	-0.1	-0.2	-0.5	-1.5	-0.3	-0.3	-0.3	-0.9	-0.0	-6.6	+0.0
14 Minimum price 35p + total off-t discount ba	-12	-0.0	-0.3	-0.3	-0.1	-14	-0.2	-0.3	-0.6	-1.8	-0.2	-0.2	-0.3	-0.8	-0.0	-7.2	+0.0
15 Minimum price 40p + total off-t discount ba	-15	-0.0	-0.3	-0.4	-0.1	-18	-0.2	-0.4	-0.8	-2.3	-0.3	-0.2	-0.3	-0.9	-0.0	-8.7	+0.0
16 Minimum price 45p + total off-t discount ba	-21	-0.0	-0.5	-0.6	-0.1	-24	-0.3	-0.5	-1.1	-3.1	-0.4	-0.3	-0.5	-1.2	-0.0	-11.0	+0.0
17 Minimum price 50p + total off-t discount ba	-27	-0.0	-0.6	-0.7	-0.2	-30	-0.4	-0.6	-1.4	-4.0	-0.5	-0.5	-0.7	-1.7	-0.0	-14.3	+0.0
18 Minimum price 55p + total off-t discount ba	-34	-0.1	-0.8	-1.0	-0.2	-38	-0.5	-0.8	-1.9	-5.1	-0.7	-0.7	-0.9	-2.3	-0.0	-18.6	+0.0
19 Minimum price 60p + total off-t discount ba	-42	-0.1	-1.0	-1.2	-0.3	-47	-0.7	-1.0	-2.3	-6.3	-1.0	-1.0	-1.3	-3.3	-0.0	-23.9	+0.0
20 Minimum price 65p + total off-t discount ba	-51	-0.1	-1.2	-1.5	-0.4	-57	-0.8	-1.2	-2.8	-7.6	-1.4	-1.3	-1.7	-4.4	-0.0	-29.9	+0.0
21 Minimum price 70p + total off-t discount ba	-60	-0.1	-1.4	-1.7	-0.4	-65	-0.9	-1.4	-3.3	-8.9	-1.7	-1.7	-2.1	-5.5	-0.1	-36.1	+0.0

Table A16.6: Summary tables for sensitivity analysis – higher crime AAFs – harm analysis – moderate drinkers

SUMMARY - HAZARDOUS	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	+1	+0.0	+0.0	+0.0	+0.0	+2	+0.0	+0.0	+0.0	+0.1	+0.0	+0.0	+0.0	+0.1	+0.0	+0.1	+0.0
2 Minimum price 30p	+0	-0.0	+0.0	+0.0	+0.0	-2	-0.0	+0.0	-0.0	-0.0	+0.0	-0.0	-0.0	-0.0	+0.0	-0.1	+0.0
3 Minimum price 35p	-4	-0.0	-0.1	-0.1	-0.0	-21	-0.1	-0.1	-0.3	-0.6	-0.1	-0.2	-0.2	-0.4	-0.0	-1.3	+0.0
4 Minimum price 40p	-12	-0.0	-0.2	-0.2	-0.1	-64	-0.4	-0.2	-1.0	-1.7	-0.3	-0.4	-0.5	-1.2	-0.0	-4.0	+0.0
5 Minimum price 45p	-23	-0.1	-0.3	-0.5	-0.1	-125	-0.8	-0.4	-1.9	-3.3	-0.7	-0.9	-0.9	-2.5	-0.0	-8.1	+0.0
6 Minimum price 50p	-37	-0.1	-0.5	-0.8	-0.2	-199	-1.3	-0.6	-3.1	-5.2	-1.2	-1.4	-1.6	-4.2	-0.0	-13.7	+0.0
7 Minimum price 55p	-52	-0.2	-0.7	-1.1	-0.3	-280	-1.8	-0.9	-4.4	-7.4	-1.8	-2.0	-2.3	-6.1	-0.1	-20.1	+0.0
8 Minimum price 60p	-68	-0.2	-0.9	-1.5	-0.3	-364	-2.4	-1.1	-5.8	-9.7	-2.3	-2.7	-3.0	-8.0	-0.1	-26.9	+0.0
9 Minimum price 65p	-85	-0.3	-1.2	-1.9	-0.4	-448	-3.0	-1.4	-7.2	-12.1	-2.9	-3.3	-3.8	-9.9	-0.1	-34.1	+0.0
10 Minimum price 70p	-101	-0.3	-1.5	-2.3	-0.5	-530	-3.6	-1.7	-8.7	-14.5	-3.5	-4.0	-4.6	-12.0	-0.1	-41.6	+0.0
11 Total off-trade discount ban	-17	-0.1	-0.2	-0.4	-0.1	-92	-0.6	-0.3	-1.4	-2.4	-0.7	-0.7	-0.9	-2.3	-0.0	-8.2	+0.0
12 Minimum price 25p + total off-t discount ba	-16	-0.1	-0.2	-0.4	-0.1	-91	-0.6	-0.3	-1.4	-2.4	-0.7	-0.7	-0.9	-2.3	-0.0	-8.2	+0.0
13 Minimum price 30p + total off-t discount ba	-17	-0.1	-0.2	-0.4	-0.1	-95	-0.6	-0.3	-1.4	-2.5	-0.7	-0.8	-0.9	-2.4	-0.0	-8.4	+0.0
14 Minimum price 35p + total off-t discount ba	-20	-0.1	-0.3	-0.4	-0.1	-111	-0.7	-0.3	-1.7	-2.9	-0.7	-0.9	-1.0	-2.6	-0.0	-9.5	+0.0
15 Minimum price 40p + total off-t discount ba	-27	-0.1	-0.4	-0.6	-0.1	-147	-0.9	-0.4	-2.3	-3.9	-0.9	-1.0	-1.2	-3.2	-0.0	-11.7	+0.0
16 Minimum price 45p + total off-t discount ba	-36	-0.1	-0.5	-0.8	-0.2	-196	-1.3	-0.6	-3.0	-5.2	-1.2	-1.4	-1.6	-4.2	-0.0	-15.1	+0.0
17 Minimum price 50p + total off-t discount ba	-48	-0.2	-0.7	-1.0	-0.2	-257	-1.7	-0.8	-4.0	-6.8	-1.6	-1.9	-2.2	-5.7	-0.1	-19.7	+0.0
18 Minimum price 55p + total off-t discount ba	-61	-0.2	-0.8	-1.3	-0.3	-326	-2.2	-1.0	-5.2	-8.7	-2.1	-2.4	-2.8	-7.3	-0.1	-25.2	+0.0
19 Minimum price 60p + total off-t discount ba	-75	-0.2	-1.1	-1.7	-0.4	-401	-2.7	-1.2	-6.4	-10.8	-2.6	-3.0	-3.4	-9.0	-0.1	-31.2	+0.0
20 Minimum price 65p + total off-t discount ba	-91	-0.3	-1.3	-2.0	-0.5	-479	-3.3	-1.5	-7.8	-13.0	-3.1	-3.6	-4.1	-10.8	-0.1	-38.0	+0.0
21 Minimum price 70p + total off-t discount ba	-106	-0.4	-1.5	-2.4	-0.5	-556	-3.8	-1.8	-9.2	-15.3	-3.7	-4.2	-4.9	-12.8	-0.1	-45.0	+0.0

Table A16.7: Summary tables for sensitivity analysis – higher crime AAFs – harm analysis – hazardous drinkers

SUMMARY - HARMFUL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-2	-0.0	-0.0	-0.0	-0.0	-16	-0.1	-0.0	-0.3	-0.3	-0.0	-0.0	-0.0	-0.1	-0.0	-0.6	-0.1
2 Minimum price 30p	-5	-0.0	-0.0	-0.1	-0.0	-38	-0.3	-0.0	-0.6	-0.8	-0.1	-0.1	-0.2	-0.4	-0.0	-1.5	-0.2
3 Minimum price 35p	-11	-0.1	-0.1	-0.2	-0.0	-79	-0.6	-0.1	-1.3	-1.7	-0.2	-0.3	-0.4	-0.9	-0.0	-3.0	-0.4
4 Minimum price 40p	-20	-0.1	-0.2	-0.4	-0.1	-141	-1.0	-0.2	-2.2	-3.0	-0.4	-0.5	-0.6	-1.6	-0.0	-5.4	-0.8
5 Minimum price 45p	-31	-0.2	-0.3	-0.6	-0.1	-214	-1.5	-0.3	-3.4	-4.5	-0.7	-0.8	-0.9	-2.4	-0.0	-8.3	-1.2
6 Minimum price 50p	-43	-0.2	-0.4	-0.9	-0.2	-297	-2.1	-0.4	-4.7	-6.3	-1.0	-1.1	-1.3	-3.4	-0.0	-11.7	-1.7
7 Minimum price 55p	-56	-0.3	-0.5	-1.1	-0.2	-382	-2.7	-0.5	-6.0	-8.1	-1.3	-1.5	-1.8	-4.6	-0.0	-15.4	-2.2
8 Minimum price 60p	-67	-0.3	-0.6	-1.3	-0.3	-460	-3.2	-0.6	-7.2	-9.8	-1.6	-1.9	-2.2	-5.6	-0.1	-18.8	-2.6
9 Minimum price 65p	-79	-0.4	-0.7	-1.6	-0.3	-538	-3.8	-0.7	-8.4	-11.5	-1.8	-2.2	-2.5	-6.5	-0.1	-22.4	-3.0
10 Minimum price 70p	-90	-0.4	-0.8	-1.8	-0.3	-612	-4.3	-0.9	-9.5	-13.1	-2.1	-2.5	-2.9	-7.4	-0.1	-25.8	-3.3
11 Total off-trade discount ban	-11	-0.1	-0.1	-0.2	-0.0	-80	-0.6	-0.1	-1.3	-1.7	-0.3	-0.3	-0.4	-1.1	-0.0	-3.7	-0.6
12 Minimum price 25p + total off-t discount ba	-13	-0.1	-0.1	-0.3	-0.1	-94	-0.7	-0.1	-1.5	-2.0	-0.3	-0.4	-0.5	-1.1	-0.0	-4.3	-0.7
13 Minimum price 30p + total off-t discount ba	-16	-0.1	-0.1	-0.3	-0.1	-113	-0.8	-0.1	-1.8	-2.4	-0.4	-0.4	-0.5	-1.3	-0.0	-5.0	-0.8
14 Minimum price 35p + total off-t discount ba	-21	-0.1	-0.2	-0.4	-0.1	-149	-1.1	-0.2	-2.4	-3.2	-0.5	-0.6	-0.7	-1.7	-0.0	-6.3	-1.0
15 Minimum price 40p + total off-t discount ba	-29	-0.1	-0.3	-0.6	-0.1	-201	-1.4	-0.3	-3.2	-4.3	-0.6	-0.8	-0.9	-2.3	-0.0	-8.2	-1.2
16 Minimum price 45p + total off-t discount ba	-38	-0.2	-0.3	-0.8	-0.1	-264	-1.9	-0.3	-4.2	-5.6	-0.8	-1.0	-1.2	-3.0	-0.0	-10.8	-1.6
17 Minimum price 50p + total off-t discount ba	-49	-0.2	-0.4	-1.0	-0.2	-337	-2.4	-0.4	-5.3	-7.1	-1.1	-1.3	-1.5	-3.9	-0.0	-13.8	-2.0
18 Minimum price 55p + total off-t discount ba	-60	-0.3	-0.5	-1.2	-0.2	-413	-2.9	-0.5	-6.5	-8.8	-1.4	-1.6	-1.9	-4.9	-0.0	-17.1	-2.4
19 Minimum price 60p + total off-t discount ba	-71	-0.3	-0.6	-1.4	-0.3	-486	-3.4	-0.7	-7.6	-10.3	-1.6	-2.0	-2.3	-5.9	-0.1	-20.3	-2.8
20 Minimum price 65p + total off-t discount ba	-82	-0.4	-0.8	-1.6	-0.3	-560	-3.9	-0.8	-8.7	-12.0	-1.9	-2.2	-2.6	-6.8	-0.1	-23.6	-3.1
21 Minimum price 70p + total off-t discount ba	-93	-0.4	-0.9	-1.8	-0.4	-631	-4.4	-0.9	-9.8	-13.5	-2.1	-2.5	-3.0	-7.6	-0.1	-26.9	-3.3

Table A16.8: Summary tables for sensitivity analysis – higher crime AAFs – harm analysis – harmful drinkers

SUMMARY - TOTAL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.0	+.3	-.0	-2.1	-1.9	+.2	+.2	-1.5	-2	+2	-	-18	-18	-10	+2	-26
2 Minimum price 30p	-0.4	+.1	-.1	-5.3	-5.8	-.9	+.1	-6.5	-10	+1	-1	-44	-55	-46	+1	-99
3 Minimum price 35p	-1.6	-.6	-.4	-11.0	-13.6	-3.8	-.5	-17.9	-30	-5	-4	-91	-130	-135	-5	-270
4 Minimum price 40p	-3.5	-2.1	-1.1	-19.4	-26.1	-8.6	-1.8	-36.5	-64	-18	-9	-161	-251	-287	-17	-555
5 Minimum price 45p	-6.2	-4.4	-2.0	-29.6	-42.3	-15.5	-3.8	-61.6	-109	-37	-17	-246	-409	-491	-35	-935
6 Minimum price 50p	-9.5	-7.4	-3.2	-40.9	-61.1	-23.7	-6.3	-91.1	-163	-62	-27	-340	-592	-732	-58	-1,382
7 Minimum price 55p	-13.1	-10.9	-4.6	-52.2	-80.8	-33.0	-9.3	-123.1	-222	-91	-39	-434	-785	-995	-85	-1,865
8 Minimum price 60p	-16.9	-14.5	-6.1	-61.4	-99.0	-42.7	-12.3	-154.0	-282	-121	-51	-511	-965	-1,260	-113	-2,338
9 Minimum price 65p	-20.9	-18.2	-7.7	-69.8	-116.7	-52.8	-15.4	-184.9	-345	-152	-64	-581	-1,141	-1,533	-142	-2,816
10 Minimum price 70p	-25.0	-22.0	-9.4	-76.8	-133.1	-63.4	-18.6	-215.1	-408	-183	-78	-638	-1,307	-1,803	-171	-3,281
11 Total off-trade discount ban	-3.8	-4.2	-1.8	-14.1	-23.8	-9.8	-3.6	-37.2	-61	-35	-15	-117	-227	-276	-33	-535
12 Minimum price 25p + total off-t discount ban	-3.9	-4.0	-1.8	-15.8	-25.6	-10.2	-3.4	-39.2	-64	-33	-15	-132	-244	-292	-31	-567
13 Minimum price 30p + total off-t discount ban	-4.3	-4.1	-1.9	-18.3	-28.5	-11.1	-3.5	-43.1	-71	-34	-16	-152	-272	-322	-32	-626
14 Minimum price 35p + total off-t discount ban	-5.2	-4.5	-2.1	-22.7	-34.6	-13.3	-3.9	-51.8	-87	-38	-18	-189	-332	-396	-36	-763
15 Minimum price 40p + total off-t discount ban	-6.9	-5.6	-2.7	-29.4	-44.6	-17.5	-4.8	-66.9	-116	-47	-22	-245	-430	-524	-44	-998
16 Minimum price 45p + total off-t discount ban	-9.1	-7.5	-3.4	-37.9	-57.9	-23.1	-6.4	-87.4	-154	-62	-29	-315	-560	-694	-59	-1,313
17 Minimum price 50p + total off-t discount ban	-11.9	-9.9	-4.5	-47.3	-73.6	-30.1	-8.5	-112.2	-200	-83	-37	-394	-713	-899	-78	-1,690
18 Minimum price 55p + total off-t discount ban	-15.1	-12.9	-5.7	-56.7	-90.5	-38.3	-11.0	-139.7	-252	-108	-47	-472	-879	-1,130	-101	-2,110
19 Minimum price 60p + total off-t discount ban	-18.6	-16.2	-7.0	-64.9	-106.7	-47.1	-13.7	-167.5	-307	-135	-58	-539	-1,040	-1,371	-127	-2,538
20 Minimum price 65p + total off-t discount ban	-22.5	-19.7	-8.5	-72.4	-123.1	-57.2	-16.7	-196.9	-368	-164	-71	-602	-1,205	-1,633	-154	-2,992
21 Minimum price 70p + total off-t discount ban	-26.2	-23.3	-10.0	-78.7	-138.3	-66.7	-19.7	-224.7	-426	-194	-83	-655	-1,359	-1,884	-182	-3,425

Table A16.9: Summary tables for sensitivity analysis – higher crime AAFs – financial value – overall population

SUMMARY - MODERATE	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.3	+.0	+.0	+.3	+.2	+.2	+.7	+	+2	+	+	+3	+1	+2	+5
2 Minimum price 30p	-0.1	+.4	+.0	+.0	+.4	-.0	+.3	+.7	-1	+4	+	+	+3	-6	+3	+
3 Minimum price 35p	-0.3	+.5	-.0	+.0	+.1	-.8	+.4	-.3	-5	+4	-	+	-1	-23	+4	-20
4 Minimum price 40p	-0.9	+.3	-.2	+.0	-.8	-2.2	+.2	-2.8	-11	+3	-2	+	-10	-56	+2	-64
5 Minimum price 45p	-1.7	-.1	-.5	+.0	-2.3	-4.3	-.2	-6.8	-21	-1	-4	+	-26	-102	-2	-129
6 Minimum price 50p	-2.7	-.7	-.8	+.0	-4.3	-6.8	-.7	-11.8	-32	-6	-7	+	-45	-156	-7	-208
7 Minimum price 55p	-3.9	-1.5	-1.3	+.0	-6.7	-9.8	-1.4	-17.9	-46	-12	-11	+	-69	-219	-13	-301
8 Minimum price 60p	-5.1	-2.4	-1.9	+.0	-9.4	-13.1	-2.3	-24.7	-60	-20	-15	+	-95	-285	-21	-401
9 Minimum price 65p	-6.5	-3.5	-2.5	+.0	-12.4	-16.5	-3.3	-32.3	-75	-29	-20	+	-125	-355	-30	-510
10 Minimum price 70p	-7.8	-4.6	-3.1	+.0	-15.5	-20.0	-4.3	-39.8	-90	-38	-26	+	-154	-422	-40	-616
11 Total off-trade discount ban	-1.2	-1.2	-.6	+.0	-3.1	-3.3	-1.1	-7.4	-14	-10	-5	+	-29	-68	-10	-106
12 Minimum price 25p + total off-t discount ba	-1.3	-1.0	-.6	+.0	-2.9	-3.3	-.9	-7.1	-14	-8	-5	+	-28	-70	-8	-106
13 Minimum price 30p + total off-t discount ba	-1.3	-.8	-.6	+.0	-2.8	-3.5	-.8	-7.1	-15	-7	-5	+	-27	-75	-7	-109
14 Minimum price 35p + total off-t discount ba	-1.6	-.7	-.7	+.0	-3.0	-4.1	-.7	-7.8	-18	-6	-6	+	-30	-90	-7	-126
15 Minimum price 40p + total off-t discount ba	-2.1	-.8	-.8	+.0	-3.7	-5.3	-.8	-9.8	-24	-7	-7	+	-37	-117	-7	-162
16 Minimum price 45p + total off-t discount ba	-2.7	-1.1	-1.0	+.0	-4.8	-7.0	-1.1	-12.9	-32	-9	-8	+	-49	-154	-10	-213
17 Minimum price 50p + total off-t discount ba	-3.5	-1.5	-1.3	+.0	-6.4	-9.1	-1.5	-16.9	-41	-13	-11	+	-65	-200	-14	-279
18 Minimum price 55p + total off-t discount ba	-4.6	-2.2	-1.7	+.0	-8.4	-11.6	-2.1	-22.1	-53	-18	-14	+	-85	-255	-19	-359
19 Minimum price 60p + total off-t discount ba	-5.7	-3.0	-2.2	+.0	-10.9	-14.6	-2.8	-28.3	-66	-25	-18	+	-109	-315	-26	-450
20 Minimum price 65p + total off-t discount ba	-7.0	-4.0	-2.8	+.0	-13.8	-18.0	-3.7	-35.5	-81	-33	-23	+	-137	-381	-34	-553
21 Minimum price 70p + total off-t discount ba	-8.2	-5.1	-3.3	+.0	-16.6	-21.1	-4.7	-42.4	-95	-42	-28	+	-164	-444	-43	-651

Table A16.10: Summary tables for sensitivity analysis - higher crime AAFs – financial value – moderate drinkers

SUMMARY - HAZARDOUS	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.1	+.0	+.0	+.2	+.4	+.1	+.7	+1	+1	+	+	+2	+6	+1	+8
2 Minimum price 30p	+0.1	-.0	-.0	+.0	+.0	+.2	+.0	+.2	+	-	-	+	+	-	+	-
3 Minimum price 35p	-0.4	-.4	-.1	+.0	-.8	-.9	-.3	-2.0	-6	-3	-1	+	-10	-28	-2	-41
4 Minimum price 40p	-1.1	-1.0	-.4	+.0	-2.5	-2.7	-.8	-6.0	-19	-9	-3	+	-30	-84	-7	-122
5 Minimum price 45p	-2.2	-2.2	-.7	+.0	-5.1	-5.4	-1.8	-12.2	-37	-18	-6	+	-61	-164	-16	-241
6 Minimum price 50p	-3.5	-3.7	-1.2	+.0	-8.4	-8.8	-3.0	-20.2	-60	-31	-10	+	-101	-262	-28	-390
7 Minimum price 55p	-5.0	-5.3	-1.8	+.0	-12.2	-12.7	-4.4	-29.2	-85	-44	-15	+	-145	-372	-40	-557
8 Minimum price 60p	-6.6	-7.0	-2.4	+.0	-16.0	-16.8	-5.7	-38.5	-112	-58	-20	+	-190	-486	-53	-729
9 Minimum price 65p	-8.3	-8.7	-3.1	+.0	-20.0	-21.0	-7.1	-48.2	-140	-72	-26	+	-238	-603	-66	-907
10 Minimum price 70p	-10.1	-10.5	-3.8	+.0	-24.4	-25.8	-8.6	-58.8	-170	-87	-31	+	-288	-724	-79	-1,092
11 Total off-trade discount ban	-1.6	-2.0	-.8	+.0	-4.4	-4.2	-1.7	-10.4	-27	-17	-6	+	-50	-121	-16	-187
12 Minimum price 25p + total off-t discount ba	-1.6	-2.0	-.8	+.0	-4.4	-4.2	-1.7	-10.3	-27	-17	-6	+	-50	-120	-16	-186
13 Minimum price 30p + total off-t discount ba	-1.7	-2.0	-.8	+.0	-4.5	-4.4	-1.7	-10.6	-28	-17	-7	+	-51	-125	-16	-193
14 Minimum price 35p + total off-t discount ba	-2.0	-2.3	-.9	+.0	-5.1	-5.1	-1.9	-12.1	-33	-19	-7	+	-59	-147	-18	-224
15 Minimum price 40p + total off-t discount ba	-2.6	-2.8	-1.1	+.0	-6.4	-6.6	-2.3	-15.4	-43	-23	-9	+	-75	-194	-21	-290
16 Minimum price 45p + total off-t discount ba	-3.5	-3.7	-1.4	+.0	-8.6	-8.9	-3.1	-20.5	-59	-31	-11	+	-101	-260	-28	-389
17 Minimum price 50p + total off-t discount ba	-4.6	-4.9	-1.8	+.0	-11.3	-11.7	-4.1	-27.2	-78	-41	-15	+	-134	-341	-38	-513
18 Minimum price 55p + total off-t discount ba	-5.9	-6.4	-2.3	+.0	-14.6	-15.1	-5.3	-34.9	-100	-53	-19	+	-172	-436	-48	-656
19 Minimum price 60p + total off-t discount ba	-7.4	-7.8	-2.8	+.0	-18.0	-18.8	-6.4	-43.3	-124	-65	-24	+	-213	-539	-59	-811
20 Minimum price 65p + total off-t discount ba	-9.1	-9.4	-3.5	+.0	-21.9	-23.2	-7.8	-52.9	-152	-78	-29	+	-259	-652	-71	-982
21 Minimum price 70p + total off-t discount ba	-10.7	-11.1	-4.1	+.0	-25.9	-27.4	-9.2	-62.5	-179	-93	-34	+	-305	-763	-85	-1,153

Table A16.11: Summary tables for sensitivity analysis – higher crime AAFs – financial value – hazardous drinkers

SUMMARY - HARMFUL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	-0.2	-.1	-.1	-2.1	-2.4	-.4	-.1	-2.9	-4	-1	-1	-18	-23	-16	-1	-40
2 Minimum price 30p	-0.4	-.3	-.1	-5.4	-6.2	-1.0	-.3	-7.5	-9	-3	-1	-45	-58	-40	-3	-100
3 Minimum price 35p	-0.9	-.8	-.3	-11.0	-12.9	-2.1	-.7	-15.7	-19	-6	-2	-92	-119	-83	-6	-209
4 Minimum price 40p	-1.5	-1.4	-.5	-19.4	-22.8	-3.7	-1.2	-27.8	-34	-12	-4	-161	-211	-148	-11	-370
5 Minimum price 45p	-2.3	-2.1	-.8	-29.6	-34.9	-5.8	-1.8	-42.5	-51	-18	-7	-246	-322	-225	-17	-564
6 Minimum price 50p	-3.3	-3.0	-1.1	-40.9	-48.3	-8.1	-2.6	-59.0	-71	-25	-9	-340	-446	-313	-24	-783
7 Minimum price 55p	-4.3	-4.0	-1.5	-52.2	-61.9	-10.5	-3.4	-75.8	-91	-33	-12	-434	-571	-404	-31	-1,006
8 Minimum price 60p	-5.2	-4.9	-1.8	-61.4	-73.3	-12.8	-4.2	-90.3	-110	-41	-15	-511	-677	-488	-39	-1,204
9 Minimum price 65p	-6.1	-5.7	-2.2	-69.8	-83.8	-15.2	-4.8	-103.8	-130	-47	-18	-581	-776	-574	-45	-1,394
10 Minimum price 70p	-7.0	-6.4	-2.5	-76.8	-92.7	-17.4	-5.5	-115.5	-148	-53	-21	-638	-860	-655	-50	-1,565
11 Total off-trade discount ban	-0.9	-.9	-.4	-14.1	-16.2	-2.3	-.8	-19.3	-20	-7	-3	-117	-147	-87	-7	-241
12 Minimum price 25p + total off-t discount ba	-1.1	-.9	-.4	-15.8	-18.3	-2.6	-.8	-21.7	-23	-8	-3	-132	-166	-102	-7	-275
13 Minimum price 30p + total off-t discount ba	-1.3	-1.1	-.5	-18.3	-21.2	-3.1	-1.0	-25.3	-27	-9	-4	-152	-193	-121	-9	-323
14 Minimum price 35p + total off-t discount ba	-1.6	-1.5	-.6	-22.7	-26.4	-4.1	-1.3	-31.8	-36	-12	-5	-189	-242	-159	-12	-412
15 Minimum price 40p + total off-t discount ba	-2.2	-2.0	-.8	-29.4	-34.4	-5.5	-1.7	-41.6	-48	-17	-7	-245	-316	-213	-16	-545
16 Minimum price 45p + total off-t discount ba	-2.9	-2.6	-1.0	-37.9	-44.5	-7.2	-2.2	-53.9	-63	-22	-9	-315	-409	-280	-21	-710
17 Minimum price 50p + total off-t discount ba	-3.7	-3.4	-1.3	-47.3	-55.8	-9.3	-2.9	-68.0	-81	-28	-11	-394	-514	-357	-27	-898
18 Minimum price 55p + total off-t discount ba	-4.6	-4.3	-1.7	-56.7	-67.3	-11.5	-3.7	-82.4	-99	-36	-14	-472	-620	-439	-34	-1,093
19 Minimum price 60p + total off-t discount ba	-5.5	-5.1	-2.0	-64.9	-77.5	-13.6	-4.4	-95.4	-117	-43	-16	-539	-715	-517	-40	-1,273
20 Minimum price 65p + total off-t discount ba	-6.4	-5.9	-2.3	-72.4	-87.0	-15.9	-5.0	-107.9	-135	-49	-19	-602	-805	-599	-46	-1,450
21 Minimum price 70p + total off-t discount ba	-7.2	-6.6	-2.6	-78.7	-95.2	-18.0	-5.6	-118.8	-153	-55	-22	-655	-884	-676	-52	-1,612

Table A16.12: Summary tables for sensitivity analysis – higher crime AAFs – financial value – harmful drinkers

Appendix 17: Summary tables for sensitivity analysis – lower crime AAFs

SUMMARY - TOTAL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.2%	-1.9	+1.5	-1.0	+0.0	-1.3	+8.4	+6.4	-0.6	+2.0	+16.1	+0.7%	+4.20	+2.13
2 Minimum price 30p	-0.5%	-4.1	+3.3	-3.2	+0.0	-4.0	+17.8	+12.9	-2.3	+4.0	+32.4	+1.3%	+8.46	+5.24
3 Minimum price 35p	-1.3%	-6.8	+4.6	-8.4	+0.0	-10.5	+32.8	+21.5	-6.6	+6.7	+54.4	+2.2%	+14.20	+11.42
4 Minimum price 40p	-2.7%	-9.9	+3.3	-15.8	+0.0	-22.3	+53.9	+32.7	-14.2	+10.1	+82.6	+3.4%	+21.54	+21.84
5 Minimum price 45p	-4.7%	-13.8	+0.2	-25.1	+0.1	-38.6	+77.2	+45.3	-24.9	+14.0	+111.7	+4.6%	+29.13	+36.03
6 Minimum price 50p	-7.2%	-18.3	-5.3	-35.1	+0.1	-58.7	+99.9	+59.0	-38.5	+18.2	+138.6	+5.7%	+36.16	+53.44
7 Minimum price 55p	-10.0%	-22.4	-13.8	-45.4	+0.0	-81.6	+121.2	+73.9	-54.2	+22.7	+163.5	+6.7%	+42.66	+73.94
8 Minimum price 60p	-12.9%	-24.9	-24.0	-56.0	+0.0	-104.9	+139.6	+90.1	-70.8	+27.3	+186.2	+7.7%	+48.57	+96.60
9 Minimum price 65p	-15.9%	-27.5	-35.5	-66.4	-0.0	-129.5	+151.2	+107.7	-89.2	+32.0	+201.7	+8.3%	+52.63	+120.75
10 Minimum price 70p	-18.9%	-30.3	-47.8	-75.7	-0.0	-153.9	+155.5	+125.7	-108.3	+36.8	+209.8	+8.6%	+54.73	+145.61
11 Total off-trade discount ban	-3.0%	-4.9	-14.9	-4.6	-0.1	-24.5	+48.6	+11.0	-11.0	+3.4	+52.0	+2.1%	+13.57	+23.62
12 Minimum price 25p + total off-t discount ban	-3.2%	-6.3	-13.8	-5.6	-0.1	-25.8	+55.3	+16.5	-11.8	+5.1	+65.2	+2.7%	+17.00	+25.45
13 Minimum price 30p + total off-t discount ban	-3.5%	-7.9	-12.5	-7.7	-0.1	-28.1	+62.7	+21.9	-13.4	+6.8	+78.0	+3.2%	+20.34	+27.93
14 Minimum price 35p + total off-t discount ban	-4.1%	-9.6	-11.6	-12.5	-0.1	-33.7	+74.5	+29.3	-17.4	+9.1	+95.6	+3.9%	+24.94	+32.99
15 Minimum price 40p + total off-t discount ban	-5.4%	-11.7	-12.7	-19.1	-0.1	-43.7	+90.6	+39.3	-24.2	+12.2	+117.8	+4.8%	+30.74	+41.59
16 Minimum price 45p + total off-t discount ban	-7.1%	-14.8	-15.2	-27.5	-0.1	-57.6	+107.9	+50.7	-34.0	+15.7	+140.3	+5.8%	+36.61	+53.45
17 Minimum price 50p + total off-t discount ban	-9.2%	-18.8	-19.3	-36.6	-0.1	-74.8	+123.9	+63.3	-46.4	+19.6	+160.5	+6.6%	+41.86	+68.13
18 Minimum price 55p + total off-t discount ban	-11.7%	-22.5	-25.9	-46.4	-0.1	-94.9	+138.6	+77.4	-61.0	+23.8	+178.7	+7.3%	+46.62	+85.99
19 Minimum price 60p + total off-t discount ban	-14.3%	-24.8	-34.5	-56.8	-0.1	-116.2	+151.6	+93.1	-77.1	+28.2	+195.8	+8.0%	+51.07	+106.67
20 Minimum price 65p + total off-t discount ban	-17.1%	-27.3	-44.8	-67.1	-0.1	-139.3	+158.9	+110.2	-95.0	+32.8	+206.9	+8.5%	+53.97	+129.37
21 Minimum price 70p + total off-t discount ban	-20.0%	-30.0	-56.2	-76.3	-0.2	-162.7	+159.7	+127.9	-113.9	+37.5	+211.3	+8.7%	+55.12	+153.15

Table A17.1: Summary tables for sensitivity analysis – lower crime AAFs – consumption analysis – overall population

SUMMARY - MODERATE	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	+0.0%	-0.0	+0.1	-0.1	+0.0	+0.0	+1.0	+1.2	-0.0	+0.4	+2.5	+0.3%	+1.01	+0.42
2 Minimum price 30p	-0.1%	+0.0	+0.3	-0.6	+0.0	-0.3	+2.4	+2.5	-0.2	+0.8	+5.4	+0.8%	+2.21	+1.12
3 Minimum price 35p	-0.5%	+0.1	+0.2	-1.8	+0.0	-1.6	+5.1	+4.2	-0.8	+1.3	+9.9	+1.4%	+4.07	+2.80
4 Minimum price 40p	-1.3%	+0.1	-0.7	-3.6	+0.0	-4.1	+9.4	+6.4	-1.7	+1.9	+16.1	+2.2%	+6.62	+5.77
5 Minimum price 45p	-2.5%	-0.0	-2.0	-5.9	+0.0	-7.8	+14.9	+8.9	-3.1	+2.7	+23.4	+3.3%	+9.63	+10.07
6 Minimum price 50p	-3.9%	-0.2	-3.9	-8.5	+0.0	-12.6	+21.1	+11.6	-4.9	+3.5	+31.3	+4.4%	+12.89	+15.54
7 Minimum price 55p	-5.7%	-0.5	-6.6	-11.3	-0.0	-18.4	+27.7	+14.5	-7.1	+4.4	+39.5	+5.5%	+16.27	+22.16
8 Minimum price 60p	-7.7%	-0.9	-9.7	-14.2	-0.0	-24.8	+33.9	+17.7	-9.6	+5.3	+47.3	+6.6%	+19.48	+29.62
9 Minimum price 65p	-9.9%	-1.3	-13.1	-17.2	-0.0	-31.8	+39.1	+21.3	-12.6	+6.3	+54.1	+7.6%	+22.30	+37.73
10 Minimum price 70p	-12.1%	-1.7	-16.7	-20.3	-0.1	-38.8	+43.1	+25.0	-15.7	+7.3	+59.7	+8.4%	+24.60	+46.14
11 Total off-trade discount ban	-2.1%	-0.5	-4.5	-1.5	-0.1	-6.6	+11.8	+2.2	-1.5	+0.7	+13.2	+1.8%	+5.42	+8.31
12 Minimum price 25p + total off-t discount ba	-2.1%	-0.6	-4.4	-1.6	-0.1	-6.7	+12.6	+3.2	-1.5	+1.0	+15.2	+2.1%	+6.26	+8.68
13 Minimum price 30p + total off-t discount ba	-2.2%	-0.5	-4.3	-2.1	-0.1	-6.9	+13.7	+4.2	-1.7	+1.3	+17.6	+2.5%	+7.24	+9.25
14 Minimum price 35p + total off-t discount ba	-2.5%	-0.3	-4.4	-3.2	-0.1	-8.0	+16.0	+5.8	-2.2	+1.8	+21.3	+3.0%	+8.77	+10.64
15 Minimum price 40p + total off-t discount ba	-3.2%	-0.2	-5.1	-4.8	-0.1	-10.1	+19.4	+7.7	-3.1	+2.3	+26.4	+3.7%	+10.86	+13.11
16 Minimum price 45p + total off-t discount ba	-4.1%	-0.2	-6.2	-6.8	-0.1	-13.2	+23.6	+10.0	-4.4	+3.0	+32.2	+4.5%	+13.27	+16.65
17 Minimum price 50p + total off-t discount ba	-5.4%	-0.3	-7.7	-9.2	-0.1	-17.2	+28.2	+12.5	-6.0	+3.8	+38.5	+5.4%	+15.86	+21.20
18 Minimum price 55p + total off-t discount ba	-6.9%	-0.5	-9.8	-11.7	-0.1	-22.2	+33.2	+15.2	-8.0	+4.6	+45.0	+6.3%	+18.54	+26.88
19 Minimum price 60p + total off-t discount ba	-8.8%	-0.8	-12.5	-14.6	-0.1	-28.0	+38.1	+18.3	-10.5	+5.5	+51.4	+7.2%	+21.18	+33.61
20 Minimum price 65p + total off-t discount ba	-10.8%	-1.3	-15.6	-17.6	-0.1	-34.5	+42.2	+21.8	-13.4	+6.4	+57.1	+8.0%	+23.54	+41.16
21 Minimum price 70p + total off-t discount ba	-12.9%	-1.6	-18.9	-20.6	-0.1	-41.2	+45.4	+25.5	-16.5	+7.4	+61.9	+8.7%	+25.49	+49.15

Table A17.2: Summary tables for sensitivity analysis – lower crime AAFs – consumption analysis – moderate drinkers

SUMMARY - HAZARDOUS	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	+0.0%	-2.2	+4.3	-1.5	+0.0	+0.7	+3.7	+2.9	+0.2	+0.9	+7.7	+0.8%	+8.05	+3.16
2 Minimum price 30p	-0.1%	-4.8	+9.0	-5.0	+0.1	-0.8	+7.8	+6.0	-0.1	+1.9	+15.6	+1.5%	+16.35	+7.85
3 Minimum price 35p	-0.6%	-7.8	+12.6	-13.4	+0.1	-8.6	+14.4	+9.9	-1.4	+3.1	+26.1	+2.6%	+27.32	+17.64
4 Minimum price 40p	-1.9%	-11.5	+11.4	-26.3	+0.1	-26.2	+24.0	+15.3	-4.2	+4.7	+39.7	+3.9%	+41.68	+35.28
5 Minimum price 45p	-3.7%	-16.5	+6.2	-42.7	+0.1	-52.9	+34.7	+21.3	-8.7	+6.6	+53.9	+5.4%	+56.54	+60.01
6 Minimum price 50p	-6.2%	-22.6	-4.6	-60.5	+0.2	-87.6	+45.3	+27.8	-14.5	+8.6	+67.2	+6.7%	+70.43	+90.92
7 Minimum price 55p	-9.1%	-27.5	-22.0	-78.8	+0.2	-128.1	+55.6	+34.9	-21.5	+10.8	+79.8	+7.9%	+83.65	+128.06
8 Minimum price 60p	-12.1%	-30.3	-43.4	-97.4	+0.2	-170.9	+64.3	+42.6	-29.1	+13.0	+90.8	+9.0%	+95.20	+169.21
9 Minimum price 65p	-15.3%	-33.6	-67.5	-115.4	+0.2	-216.4	+69.6	+50.9	-37.6	+15.2	+98.2	+9.7%	+102.94	+212.97
10 Minimum price 70p	-18.6%	-37.5	-93.5	-131.7	+0.1	-262.5	+71.1	+59.3	-46.6	+17.5	+101.4	+10.1%	+106.28	+257.95
11 Total off-trade discount ban	-3.3%	-6.9	-31.4	-8.3	-0.2	-46.8	+21.8	+5.4	-5.5	+1.7	+23.4	+2.3%	+24.53	+44.24
12 Minimum price 25p + total off-t discount ba	-3.3%	-8.7	-28.2	-9.8	-0.1	-46.8	+24.8	+7.9	-5.5	+2.4	+29.7	+2.9%	+31.14	+46.97
13 Minimum price 30p + total off-t discount ba	-3.4%	-10.3	-24.9	-13.2	-0.1	-48.4	+28.2	+10.4	-5.8	+3.2	+36.0	+3.6%	+37.78	+50.73
14 Minimum price 35p + total off-t discount ba	-3.9%	-12.0	-22.1	-20.9	-0.1	-55.1	+33.4	+13.8	-7.0	+4.3	+44.5	+4.4%	+46.71	+58.71
15 Minimum price 40p + total off-t discount ba	-4.9%	-14.2	-23.3	-32.4	-0.1	-69.9	+40.8	+18.5	-9.6	+5.8	+55.5	+5.5%	+58.16	+73.16
16 Minimum price 45p + total off-t discount ba	-6.5%	-18.0	-27.3	-47.0	-0.0	-92.3	+48.8	+24.0	-13.6	+7.4	+66.6	+6.6%	+69.81	+93.59
17 Minimum price 50p + total off-t discount ba	-8.6%	-23.2	-35.1	-63.1	-0.0	-121.4	+56.2	+30.0	-18.9	+9.3	+76.6	+7.6%	+80.29	+119.35
18 Minimum price 55p + total off-t discount ba	-11.0%	-27.5	-48.3	-80.5	-0.0	-156.3	+63.2	+36.6	-25.3	+11.3	+85.9	+8.5%	+90.08	+151.28
19 Minimum price 60p + total off-t discount ba	-13.8%	-29.9	-66.1	-98.8	-0.0	-194.8	+69.3	+44.0	-32.5	+13.4	+94.2	+9.4%	+98.76	+188.52
20 Minimum price 65p + total off-t discount ba	-16.8%	-33.0	-87.6	-116.6	-0.0	-237.2	+72.5	+52.1	-40.8	+15.6	+99.4	+9.9%	+104.20	+229.45
21 Minimum price 70p + total off-t discount ba	-19.9%	-36.8	-111.6	-132.7	-0.0	-281.2	+72.2	+60.4	-49.7	+17.9	+100.8	+10.0%	+105.65	+272.32

Table A17.3: Summary tables for sensitivity analysis – lower crime AAFs – consumption analysis – hazardous drinkers

SUMMARY - HARMFUL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.6%	-19.3	+5.8	-7.3	+0.1	-20.7	+3.9	+2.4	-0.8	+0.7	+6.2	+1.1%	+22.82	+15.75
2 Minimum price 30p	-1.5%	-43.5	+13.9	-22.1	+0.1	-51.7	+8.0	+4.5	-2.0	+1.4	+11.9	+2.0%	+43.64	+37.60
3 Minimum price 35p	-3.2%	-71.4	+20.0	-56.6	+0.0	-108.0	+14.1	+7.4	-4.5	+2.3	+19.3	+3.3%	+70.51	+77.38
4 Minimum price 40p	-5.7%	-104.0	+12.9	-103.0	+0.0	-194.1	+21.9	+11.1	-8.5	+3.5	+28.0	+4.8%	+102.29	+139.20
5 Minimum price 45p	-8.9%	-142.0	-1.7	-158.7	-0.0	-302.4	+29.6	+15.2	-13.6	+4.8	+35.9	+6.2%	+131.11	+218.32
6 Minimum price 50p	-12.6%	-183.7	-27.2	-217.2	-0.1	-428.2	+35.9	+19.6	-19.9	+6.1	+41.8	+7.2%	+152.59	+310.93
7 Minimum price 55p	-16.6%	-221.5	-63.9	-277.1	-0.3	-562.7	+40.8	+24.3	-26.8	+7.5	+45.8	+7.8%	+167.21	+414.79
8 Minimum price 60p	-20.4%	-243.1	-108.5	-338.6	-0.5	-690.6	+44.5	+29.3	-33.7	+9.0	+49.2	+8.4%	+179.54	+526.71
9 Minimum price 65p	-24.3%	-263.1	-158.6	-400.4	-0.7	-822.8	+45.6	+34.7	-41.2	+10.5	+49.6	+8.5%	+181.03	+644.58
10 Minimum price 70p	-28.0%	-284.9	-213.3	-450.4	-1.0	-949.6	+44.3	+40.2	-48.6	+12.0	+47.8	+8.2%	+174.74	+765.51
11 Total off-trade discount ban	-3.8%	-41.1	-62.6	-23.4	-0.7	-127.8	+15.8	+3.3	-4.2	+1.1	+15.9	+2.7%	+58.11	+108.09
12 Minimum price 25p + total off-t discount ba	-4.3%	-56.2	-58.9	-30.7	-0.6	-146.4	+18.8	+5.4	-5.0	+1.7	+20.9	+3.6%	+76.51	+121.57
13 Minimum price 30p + total off-t discount ba	-5.1%	-73.6	-53.4	-44.6	-0.6	-172.2	+21.9	+7.2	-6.1	+2.3	+25.3	+4.3%	+92.30	+138.88
14 Minimum price 35p + total off-t discount ba	-6.5%	-93.8	-49.1	-76.6	-0.6	-220.2	+26.6	+9.7	-8.5	+3.1	+30.9	+5.3%	+113.01	+171.55
15 Minimum price 40p + total off-t discount ba	-8.7%	-118.7	-55.5	-119.1	-0.7	-293.9	+32.4	+13.0	-12.0	+4.1	+37.5	+6.4%	+137.01	+223.00
16 Minimum price 45p + total off-t discount ba	-11.5%	-150.2	-67.3	-170.0	-0.7	-388.2	+38.0	+16.8	-16.8	+5.3	+43.3	+7.4%	+158.14	+290.30
17 Minimum price 50p + total off-t discount ba	-14.7%	-187.7	-86.9	-223.7	-0.8	-499.1	+42.3	+20.9	-22.5	+6.5	+47.2	+8.1%	+172.31	+370.31
18 Minimum price 55p + total off-t discount ba	-18.3%	-222.7	-116.2	-281.0	-0.9	-620.9	+45.3	+25.3	-29.1	+7.9	+49.4	+8.5%	+180.37	+463.16
19 Minimum price 60p + total off-t discount ba	-21.8%	-242.7	-154.3	-341.8	-1.1	-740.0	+47.6	+30.2	-35.8	+9.3	+51.2	+8.8%	+187.19	+567.11
20 Minimum price 65p + total off-t discount ba	-25.5%	-262.1	-199.5	-403.0	-1.3	-865.9	+47.4	+35.4	-43.1	+10.8	+50.4	+8.6%	+184.22	+679.20
21 Minimum price 70p + total off-t discount ba	-29.1%	-283.6	-250.4	-452.5	-1.6	-988.1	+45.1	+40.8	-50.4	+12.2	+47.7	+8.2%	+174.19	+795.77

Table A17.4: Summary tables for sensitivity analysis – lower crime AAFs – consumption analysis – harmful drinkers

SUMMARY - TOTAL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-1	-0.0	+0.0	-0.0	+0.0	-14	-0.1	+0.0	-0.2	-0.2	+0.0	+0.1	+0.0	+0.1	+0.0	-0.2	-0.1
2 Minimum price 30p	-6	-0.0	-0.0	-0.1	-0.0	-41	-0.3	-0.0	-0.7	-0.9	+0.0	+0.1	+0.0	+0.1	+0.0	-1.3	-0.2
3 Minimum price 35p	-18	-0.1	-0.2	-0.4	-0.1	-104	-0.8	-0.2	-1.8	-2.7	-0.0	-0.0	-0.0	-0.1	-0.0	-4.7	-0.4
4 Minimum price 40p	-39	-0.2	-0.5	-0.8	-0.2	-213	-1.5	-0.5	-3.6	-5.7	-0.1	-0.3	-0.1	-0.5	-0.0	-11.6	-0.8
5 Minimum price 45p	-68	-0.3	-0.9	-1.5	-0.3	-354	-2.5	-1.0	-6.0	-9.8	-0.3	-0.6	-0.3	-1.2	-0.0	-21.7	-1.2
6 Minimum price 50p	-101	-0.4	-1.3	-2.2	-0.5	-520	-3.7	-1.5	-8.9	-14.6	-0.5	-1.0	-0.5	-2.0	-0.0	-34.6	-1.7
7 Minimum price 55p	-137	-0.5	-1.9	-3.0	-0.7	-695	-5.0	-2.0	-12.0	-19.9	-0.7	-1.5	-0.8	-3.0	-0.0	-49.9	-2.2
8 Minimum price 60p	-174	-0.6	-2.4	-3.9	-0.9	-866	-6.3	-2.6	-15.1	-25.2	-0.9	-2.1	-1.0	-4.0	-0.0	-66.1	-2.6
9 Minimum price 65p	-212	-0.7	-3.0	-4.8	-1.1	-1039	-7.5	-3.3	-18.2	-30.7	-1.1	-2.6	-1.3	-5.1	-0.0	-83.5	-3.0
10 Minimum price 70p	-248	-0.8	-3.6	-5.7	-1.3	-1204	-8.8	-3.9	-21.3	-36.1	-1.4	-3.2	-1.6	-6.2	-0.0	-101.0	-3.3
11 Total off-trade discount ban	-37	-0.1	-0.5	-0.9	-0.2	-182	-1.3	-0.6	-3.2	-5.5	-0.3	-0.6	-0.3	-1.2	-0.0	-18.8	-0.6
12 Minimum price 25p + total off-t discount ban	-39	-0.1	-0.6	-0.9	-0.2	-196	-1.4	-0.6	-3.4	-5.8	-0.2	-0.6	-0.3	-1.1	-0.0	-19.2	-0.7
13 Minimum price 30p + total off-t discount ban	-43	-0.2	-0.6	-1.0	-0.2	-219	-1.6	-0.6	-3.8	-6.4	-0.3	-0.6	-0.3	-1.1	-0.0	-20.1	-0.8
14 Minimum price 35p + total off-t discount ban	-53	-0.2	-0.7	-1.2	-0.3	-274	-2.0	-0.8	-4.7	-7.9	-0.3	-0.6	-0.3	-1.2	-0.0	-23.0	-1.0
15 Minimum price 40p + total off-t discount ban	-71	-0.3	-1.0	-1.6	-0.3	-365	-2.6	-1.0	-6.3	-10.5	-0.4	-0.8	-0.4	-1.5	-0.0	-28.6	-1.2
16 Minimum price 45p + total off-t discount ban	-95	-0.3	-1.3	-2.1	-0.5	-484	-3.5	-1.4	-8.3	-13.9	-0.5	-1.0	-0.5	-2.0	-0.0	-37.0	-1.6
17 Minimum price 50p + total off-t discount ban	-123	-0.4	-1.7	-2.8	-0.6	-624	-4.5	-1.8	-10.8	-18.0	-0.6	-1.4	-0.7	-2.7	-0.0	-47.9	-2.0
18 Minimum price 55p + total off-t discount ban	-155	-0.5	-2.1	-3.5	-0.8	-778	-5.6	-2.3	-13.5	-22.6	-0.8	-1.8	-0.9	-3.6	-0.0	-61.0	-2.4
19 Minimum price 60p + total off-t discount ban	-189	-0.7	-2.7	-4.3	-0.9	-934	-6.8	-2.9	-16.3	-27.4	-1.0	-2.3	-1.2	-4.5	-0.0	-75.6	-2.8
20 Minimum price 65p + total off-t discount ban	-225	-0.8	-3.2	-5.1	-1.1	-1096	-8.0	-3.5	-19.3	-32.7	-1.2	-2.8	-1.4	-5.5	-0.0	-91.7	-3.1
21 Minimum price 70p + total off-t discount ban	-259	-0.9	-3.8	-6.0	-1.3	-1252	-9.2	-4.1	-22.3	-37.7	-1.5	-3.4	-1.7	-6.6	-0.0	-108.3	-3.3

Table A17.5: Summary tables for sensitivity analysis – lower crime AAFs – harm analysis – overall population

SUMMARY - MODERATE	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	+0	-0.0	+0.0	+0.0	+0.0	+0	-0.0	+0.0	-0.0	+0.0	+0.0	+0.0	+0.0	+0.1	+0.0	+0.3	+0.0
2 Minimum price 30p	-1	-0.0	-0.0	-0.0	-0.0	-1	-0.0	-0.0	-0.0	-0.1	+0.0	+0.1	+0.0	+0.2	+0.0	+0.4	+0.0
3 Minimum price 35p	-3	-0.0	-0.1	-0.1	-0.0	-4	-0.1	-0.1	-0.2	-0.5	+0.0	+0.1	+0.1	+0.2	+0.0	-0.3	+0.0
4 Minimum price 40p	-7	-0.0	-0.2	-0.2	-0.0	-9	-0.1	-0.2	-0.4	-1.1	+0.0	+0.1	+0.0	+0.1	+0.0	-2.2	+0.0
5 Minimum price 45p	-14	-0.0	-0.3	-0.4	-0.1	-16	-0.2	-0.3	-0.7	-2.0	-0.0	+0.0	+0.0	+0.0	-0.0	-5.2	+0.0
6 Minimum price 50p	-21	-0.0	-0.5	-0.6	-0.1	-24	-0.3	-0.5	-1.1	-3.1	-0.0	-0.1	-0.0	-0.1	-0.0	-9.2	+0.0
7 Minimum price 55p	-30	-0.0	-0.6	-0.8	-0.2	-33	-0.5	-0.7	-1.6	-4.4	-0.1	-0.2	-0.1	-0.4	-0.0	-14.4	+0.0
8 Minimum price 60p	-39	-0.1	-0.9	-1.1	-0.3	-43	-0.6	-0.9	-2.1	-5.7	-0.2	-0.3	-0.2	-0.6	-0.0	-20.3	+0.0
9 Minimum price 65p	-48	-0.1	-1.1	-1.4	-0.3	-53	-0.7	-1.1	-2.6	-7.1	-0.2	-0.5	-0.3	-1.0	-0.0	-26.8	+0.0
10 Minimum price 70p	-57	-0.1	-1.3	-1.6	-0.4	-62	-0.9	-1.4	-3.1	-8.4	-0.3	-0.6	-0.3	-1.3	-0.0	-33.3	+0.0
11 Total off-trade discount ban	-9	-0.0	-0.2	-0.3	-0.1	-11	-0.1	-0.2	-0.5	-1.4	-0.1	-0.2	-0.1	-0.3	-0.0	-6.9	+0.0
12 Minimum price 25p + total off-t discount ba	-9	-0.0	-0.2	-0.3	-0.1	-11	-0.1	-0.2	-0.5	-1.4	-0.1	-0.1	-0.1	-0.3	-0.0	-6.7	+0.0
13 Minimum price 30p + total off-t discount ba	-10	-0.0	-0.2	-0.3	-0.1	-12	-0.1	-0.2	-0.5	-1.5	-0.1	-0.1	-0.1	-0.2	-0.0	-6.6	+0.0
14 Minimum price 35p + total off-t discount ba	-12	-0.0	-0.3	-0.3	-0.1	-14	-0.2	-0.3	-0.6	-1.8	-0.1	-0.1	-0.0	-0.2	-0.0	-7.2	+0.0
15 Minimum price 40p + total off-t discount ba	-15	-0.0	-0.3	-0.4	-0.1	-18	-0.2	-0.4	-0.8	-2.3	-0.1	-0.1	-0.0	-0.2	-0.0	-8.7	+0.0
16 Minimum price 45p + total off-t discount ba	-21	-0.0	-0.5	-0.6	-0.1	-24	-0.3	-0.5	-1.1	-3.1	-0.1	-0.1	-0.1	-0.3	-0.0	-11.0	+0.0
17 Minimum price 50p + total off-t discount ba	-27	-0.0	-0.6	-0.7	-0.2	-30	-0.4	-0.6	-1.4	-4.0	-0.1	-0.2	-0.1	-0.4	-0.0	-14.3	+0.0
18 Minimum price 55p + total off-t discount ba	-34	-0.1	-0.8	-1.0	-0.2	-38	-0.5	-0.8	-1.9	-5.1	-0.1	-0.3	-0.1	-0.6	-0.0	-18.6	+0.0
19 Minimum price 60p + total off-t discount ba	-42	-0.1	-1.0	-1.2	-0.3	-47	-0.7	-1.0	-2.3	-6.3	-0.2	-0.4	-0.2	-0.8	-0.0	-23.9	+0.0
20 Minimum price 65p + total off-t discount ba	-51	-0.1	-1.2	-1.5	-0.4	-57	-0.8	-1.2	-2.8	-7.6	-0.3	-0.5	-0.3	-1.1	-0.0	-29.9	+0.0
21 Minimum price 70p + total off-t discount ba	-60	-0.1	-1.4	-1.7	-0.4	-65	-0.9	-1.4	-3.3	-8.9	-0.3	-0.7	-0.4	-1.4	-0.0	-36.1	+0.0

Table A17.6: Summary tables for sensitivity analysis – lower crime AAFs – harm analysis – moderate drinkers

SUMMARY - HAZARDOUS	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	+1	+0.0	+0.0	+0.0	+0.0	+2	+0.0	+0.0	+0.0	+0.1	+0.0	+0.0	+0.0	+0.0	+0.0	+0.1	+0.0
2 Minimum price 30p	+0	-0.0	+0.0	+0.0	+0.0	-2	-0.0	+0.0	-0.0	-0.0	+0.0	+0.0	+0.0	+0.0	+0.0	-0.1	+0.0
3 Minimum price 35p	-4	-0.0	-0.1	-0.1	-0.0	-21	-0.1	-0.1	-0.3	-0.6	-0.0	-0.0	-0.0	-0.1	-0.0	-1.3	+0.0
4 Minimum price 40p	-12	-0.0	-0.2	-0.2	-0.1	-64	-0.4	-0.2	-1.0	-1.7	-0.1	-0.1	-0.1	-0.3	-0.0	-4.0	+0.0
5 Minimum price 45p	-23	-0.1	-0.3	-0.5	-0.1	-125	-0.8	-0.4	-1.9	-3.3	-0.1	-0.3	-0.1	-0.6	-0.0	-8.1	+0.0
6 Minimum price 50p	-37	-0.1	-0.5	-0.8	-0.2	-199	-1.3	-0.6	-3.1	-5.2	-0.2	-0.5	-0.3	-1.0	-0.0	-13.7	+0.0
7 Minimum price 55p	-52	-0.2	-0.7	-1.1	-0.3	-280	-1.8	-0.9	-4.4	-7.4	-0.3	-0.8	-0.4	-1.5	-0.0	-20.1	+0.0
8 Minimum price 60p	-68	-0.2	-0.9	-1.5	-0.3	-364	-2.4	-1.1	-5.8	-9.7	-0.4	-1.0	-0.5	-2.0	-0.0	-26.9	+0.0
9 Minimum price 65p	-85	-0.3	-1.2	-1.9	-0.4	-448	-3.0	-1.4	-7.2	-12.1	-0.6	-1.3	-0.6	-2.5	-0.0	-34.1	+0.0
10 Minimum price 70p	-101	-0.3	-1.5	-2.3	-0.5	-530	-3.6	-1.7	-8.7	-14.5	-0.7	-1.5	-0.8	-3.0	-0.0	-41.6	+0.0
11 Total off-trade discount ban	-17	-0.1	-0.2	-0.4	-0.1	-92	-0.6	-0.3	-1.4	-2.4	-0.1	-0.3	-0.2	-0.6	-0.0	-8.2	+0.0
12 Minimum price 25p + total off-t discount ba	-16	-0.1	-0.2	-0.4	-0.1	-91	-0.6	-0.3	-1.4	-2.4	-0.1	-0.3	-0.2	-0.6	-0.0	-8.2	+0.0
13 Minimum price 30p + total off-t discount ba	-17	-0.1	-0.2	-0.4	-0.1	-95	-0.6	-0.3	-1.4	-2.5	-0.1	-0.3	-0.2	-0.6	-0.0	-8.4	+0.0
14 Minimum price 35p + total off-t discount ba	-20	-0.1	-0.3	-0.4	-0.1	-111	-0.7	-0.3	-1.7	-2.9	-0.1	-0.3	-0.2	-0.6	-0.0	-9.5	+0.0
15 Minimum price 40p + total off-t discount ba	-27	-0.1	-0.4	-0.6	-0.1	-147	-0.9	-0.4	-2.3	-3.9	-0.2	-0.4	-0.2	-0.8	-0.0	-11.7	+0.0
16 Minimum price 45p + total off-t discount ba	-36	-0.1	-0.5	-0.8	-0.2	-196	-1.3	-0.6	-3.0	-5.2	-0.2	-0.5	-0.3	-1.0	-0.0	-15.1	+0.0
17 Minimum price 50p + total off-t discount ba	-48	-0.2	-0.7	-1.0	-0.2	-257	-1.7	-0.8	-4.0	-6.8	-0.3	-0.7	-0.4	-1.4	-0.0	-19.7	+0.0
18 Minimum price 55p + total off-t discount ba	-61	-0.2	-0.8	-1.3	-0.3	-326	-2.2	-1.0	-5.2	-8.7	-0.4	-0.9	-0.5	-1.8	-0.0	-25.2	+0.0
19 Minimum price 60p + total off-t discount ba	-75	-0.2	-1.1	-1.7	-0.4	-401	-2.7	-1.2	-6.4	-10.8	-0.5	-1.1	-0.6	-2.2	-0.0	-31.2	+0.0
20 Minimum price 65p + total off-t discount ba	-91	-0.3	-1.3	-2.0	-0.5	-479	-3.3	-1.5	-7.8	-13.0	-0.6	-1.4	-0.7	-2.7	-0.0	-38.0	+0.0
21 Minimum price 70p + total off-t discount ba	-106	-0.4	-1.5	-2.4	-0.5	-556	-3.8	-1.8	-9.2	-15.3	-0.7	-1.6	-0.8	-3.2	-0.0	-45.0	+0.0

Table A17.7: Summary tables for sensitivity analysis – lower crime AAFs – harm analysis – hazardous drinkers

SUMMARY - HARMFUL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-2	-0.0	-0.0	-0.0	-0.0	-16	-0.1	-0.0	-0.3	-0.3	-0.0	-0.0	+0.0	-0.0	-0.0	-0.6	-0.1
2 Minimum price 30p	-5	-0.0	-0.0	-0.1	-0.0	-38	-0.3	-0.0	-0.6	-0.8	-0.0	-0.0	-0.0	-0.1	-0.0	-1.5	-0.2
3 Minimum price 35p	-11	-0.1	-0.1	-0.2	-0.0	-79	-0.6	-0.1	-1.3	-1.7	-0.0	-0.1	-0.1	-0.2	-0.0	-3.0	-0.4
4 Minimum price 40p	-20	-0.1	-0.2	-0.4	-0.1	-141	-1.0	-0.2	-2.2	-3.0	-0.1	-0.2	-0.1	-0.4	-0.0	-5.4	-0.8
5 Minimum price 45p	-31	-0.2	-0.3	-0.6	-0.1	-214	-1.5	-0.3	-3.4	-4.5	-0.1	-0.3	-0.2	-0.6	-0.0	-8.3	-1.2
6 Minimum price 50p	-43	-0.2	-0.4	-0.9	-0.2	-297	-2.1	-0.4	-4.7	-6.3	-0.2	-0.4	-0.2	-0.8	-0.0	-11.7	-1.7
7 Minimum price 55p	-56	-0.3	-0.5	-1.1	-0.2	-382	-2.7	-0.5	-6.0	-8.1	-0.2	-0.6	-0.3	-1.1	-0.0	-15.4	-2.2
8 Minimum price 60p	-67	-0.3	-0.6	-1.3	-0.3	-460	-3.2	-0.6	-7.2	-9.8	-0.3	-0.7	-0.4	-1.4	-0.0	-18.8	-2.6
9 Minimum price 65p	-79	-0.4	-0.7	-1.6	-0.3	-538	-3.8	-0.7	-8.4	-11.5	-0.3	-0.9	-0.4	-1.6	-0.0	-22.4	-3.0
10 Minimum price 70p	-90	-0.4	-0.8	-1.8	-0.3	-612	-4.3	-0.9	-9.5	-13.1	-0.4	-1.0	-0.5	-1.8	-0.0	-25.8	-3.3
11 Total off-trade discount ban	-11	-0.1	-0.1	-0.2	-0.0	-80	-0.6	-0.1	-1.3	-1.7	-0.1	-0.1	-0.1	-0.3	-0.0	-3.7	-0.6
12 Minimum price 25p + total off-t discount ba	-13	-0.1	-0.1	-0.3	-0.1	-94	-0.7	-0.1	-1.5	-2.0	-0.1	-0.1	-0.1	-0.3	-0.0	-4.3	-0.7
13 Minimum price 30p + total off-t discount ba	-16	-0.1	-0.1	-0.3	-0.1	-113	-0.8	-0.1	-1.8	-2.4	-0.1	-0.2	-0.1	-0.3	-0.0	-5.0	-0.8
14 Minimum price 35p + total off-t discount ba	-21	-0.1	-0.2	-0.4	-0.1	-149	-1.1	-0.2	-2.4	-3.2	-0.1	-0.2	-0.1	-0.4	-0.0	-6.3	-1.0
15 Minimum price 40p + total off-t discount ba	-29	-0.1	-0.3	-0.6	-0.1	-201	-1.4	-0.3	-3.2	-4.3	-0.1	-0.3	-0.1	-0.5	-0.0	-8.2	-1.2
16 Minimum price 45p + total off-t discount ba	-38	-0.2	-0.3	-0.8	-0.1	-264	-1.9	-0.3	-4.2	-5.6	-0.2	-0.4	-0.2	-0.7	-0.0	-10.8	-1.6
17 Minimum price 50p + total off-t discount ba	-49	-0.2	-0.4	-1.0	-0.2	-337	-2.4	-0.4	-5.3	-7.1	-0.2	-0.5	-0.2	-0.9	-0.0	-13.8	-2.0
18 Minimum price 55p + total off-t discount ba	-60	-0.3	-0.5	-1.2	-0.2	-413	-2.9	-0.5	-6.5	-8.8	-0.3	-0.6	-0.3	-1.2	-0.0	-17.1	-2.4
19 Minimum price 60p + total off-t discount ba	-71	-0.3	-0.6	-1.4	-0.3	-486	-3.4	-0.7	-7.6	-10.3	-0.3	-0.8	-0.4	-1.4	-0.0	-20.3	-2.8
20 Minimum price 65p + total off-t discount ba	-82	-0.4	-0.8	-1.6	-0.3	-560	-3.9	-0.8	-8.7	-12.0	-0.4	-0.9	-0.4	-1.7	-0.0	-23.6	-3.1
21 Minimum price 70p + total off-t discount ba	-93	-0.4	-0.9	-1.8	-0.4	-631	-4.4	-0.9	-9.8	-13.5	-0.4	-1.0	-0.5	-1.8	-0.0	-26.9	-3.3

Table A17.8: Summary tables for sensitivity analysis – lower crime AAFs – harm analysis – harmful drinkers

SUMMARY - TOTAL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.0	+.1	-.0	-2.1	-2.0	+.2	+.0	-1.8	-2	+1	-	-18	-19	-10	+	-29
2 Minimum price 30p	-0.4	+.1	-.1	-5.3	-5.8	-.9	+.0	-6.6	-10	+1	-1	-44	-55	-46	+	-100
3 Minimum price 35p	-1.6	-.1	-.4	-11.0	-13.1	-3.8	-.1	-16.9	-30	-1	-4	-91	-126	-135	-1	-261
4 Minimum price 40p	-3.5	-.4	-1.1	-19.4	-24.4	-8.6	-.3	-33.3	-64	-3	-9	-161	-237	-287	-2	-527
5 Minimum price 45p	-6.2	-.9	-2.0	-29.6	-38.8	-15.5	-.6	-54.9	-109	-8	-17	-246	-380	-491	-5	-876
6 Minimum price 50p	-9.5	-1.6	-3.2	-40.9	-55.3	-23.7	-.9	-79.9	-163	-14	-27	-340	-543	-732	-9	-1,284
7 Minimum price 55p	-13.1	-2.4	-4.6	-52.2	-72.4	-33.0	-1.4	-106.7	-222	-20	-39	-434	-715	-995	-13	-1,722
8 Minimum price 60p	-16.9	-3.2	-6.1	-61.4	-87.7	-42.7	-1.8	-132.2	-282	-27	-51	-511	-871	-1,260	-17	-2,148
9 Minimum price 65p	-20.9	-4.1	-7.7	-69.8	-102.5	-52.8	-2.3	-157.7	-345	-34	-64	-581	-1,024	-1,533	-21	-2,578
10 Minimum price 70p	-25.0	-5.0	-9.4	-76.8	-116.0	-63.4	-2.8	-182.2	-408	-41	-78	-638	-1,165	-1,803	-26	-2,994
11 Total off-trade discount ban	-3.8	-1.0	-1.8	-14.1	-20.6	-9.8	-.5	-31.0	-61	-8	-15	-117	-200	-276	-5	-481
12 Minimum price 25p + total off-t discount ban	-3.9	-.9	-1.8	-15.8	-22.5	-10.2	-.5	-33.2	-64	-7	-15	-132	-218	-292	-5	-515
13 Minimum price 30p + total off-t discount ban	-4.3	-.9	-1.9	-18.3	-25.3	-11.1	-.5	-36.9	-71	-7	-16	-152	-246	-322	-5	-572
14 Minimum price 35p + total off-t discount ban	-5.2	-1.0	-2.1	-22.7	-31.0	-13.3	-.6	-45.0	-87	-8	-18	-189	-302	-396	-5	-703
15 Minimum price 40p + total off-t discount ban	-6.9	-1.2	-2.7	-29.4	-40.2	-17.5	-.7	-58.3	-116	-10	-22	-245	-393	-524	-7	-923
16 Minimum price 45p + total off-t discount ban	-9.1	-1.6	-3.4	-37.9	-52.1	-23.1	-.9	-76.2	-154	-14	-29	-315	-511	-694	-9	-1,214
17 Minimum price 50p + total off-t discount ban	-11.9	-2.2	-4.5	-47.3	-65.9	-30.1	-1.3	-97.2	-200	-18	-37	-394	-649	-899	-12	-1,559
18 Minimum price 55p + total off-t discount ban	-15.1	-2.9	-5.7	-56.7	-80.4	-38.3	-1.6	-120.3	-252	-24	-47	-472	-795	-1,130	-15	-1,940
19 Minimum price 60p + total off-t discount ban	-18.6	-3.6	-7.0	-64.9	-94.1	-47.1	-2.0	-143.2	-307	-30	-58	-539	-935	-1,371	-19	-2,325
20 Minimum price 65p + total off-t discount ban	-22.5	-4.4	-8.5	-72.4	-107.8	-57.2	-2.5	-167.5	-368	-37	-71	-602	-1,078	-1,633	-23	-2,734
21 Minimum price 70p + total off-t discount ban	-26.2	-5.2	-10.0	-78.7	-120.2	-66.7	-3.0	-189.9	-426	-44	-83	-655	-1,208	-1,884	-27	-3,120

Table A17.9: Summary tables for sensitivity analysis – lower crime AAFs – financial value – overall population

SUMMARY - MODERATE	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.1	+.0	+.0	+.1	+.2	+.0	+.4	+	+1	+	+	+1	+1	+	+2
2 Minimum price 30p	-0.1	+.1	+.0	+.0	+.1	-.0	+.1	+.1	-1	+1	+	+	+	-6	+1	-5
3 Minimum price 35p	-0.3	+.1	-.0	+.0	-.2	-.8	+.1	-.9	-5	+1	-	+	-4	-23	+1	-26
4 Minimum price 40p	-0.9	+.1	-.2	+.0	-1.0	-2.2	+.0	-3.2	-11	+1	-2	+	-12	-56	+	-67
5 Minimum price 45p	-1.7	+.0	-.5	+.0	-2.2	-4.3	-.0	-6.6	-21	+	-4	+	-25	-102	-	-127
6 Minimum price 50p	-2.7	-.1	-.8	+.0	-3.7	-6.8	-.1	-10.6	-32	-1	-7	+	-40	-156	-1	-197
7 Minimum price 55p	-3.9	-.3	-1.3	+.0	-5.5	-9.8	-.2	-15.5	-46	-2	-11	+	-59	-219	-2	-280
8 Minimum price 60p	-5.1	-.5	-1.9	+.0	-7.5	-13.1	-.3	-20.9	-60	-4	-15	+	-80	-285	-3	-368
9 Minimum price 65p	-6.5	-.8	-2.5	+.0	-9.7	-16.5	-.5	-26.7	-75	-6	-20	+	-102	-355	-5	-461
10 Minimum price 70p	-7.8	-1.0	-3.1	+.0	-11.9	-20.0	-.7	-32.5	-90	-9	-26	+	-124	-422	-6	-553
11 Total off-trade discount ban	-1.2	-.3	-.6	+.0	-2.2	-3.3	-.2	-5.6	-14	-2	-5	+	-22	-68	-2	-91
12 Minimum price 25p + total off-t discount ba	-1.3	-.2	-.6	+.0	-2.1	-3.3	-.1	-5.6	-14	-2	-5	+	-21	-70	-1	-92
13 Minimum price 30p + total off-t discount ba	-1.3	-.2	-.6	+.0	-2.1	-3.5	-.1	-5.8	-15	-1	-5	+	-22	-75	-1	-98
14 Minimum price 35p + total off-t discount ba	-1.6	-.1	-.7	+.0	-2.4	-4.1	-.1	-6.7	-18	-1	-6	+	-25	-90	-1	-116
15 Minimum price 40p + total off-t discount ba	-2.1	-.2	-.8	+.0	-3.0	-5.3	-.1	-8.4	-24	-1	-7	+	-32	-117	-1	-150
16 Minimum price 45p + total off-t discount ba	-2.7	-.2	-1.0	+.0	-4.0	-7.0	-.2	-11.1	-32	-2	-8	+	-42	-154	-1	-198
17 Minimum price 50p + total off-t discount ba	-3.5	-.3	-1.3	+.0	-5.2	-9.1	-.2	-14.5	-41	-3	-11	+	-55	-200	-2	-257
18 Minimum price 55p + total off-t discount ba	-4.6	-.5	-1.7	+.0	-6.7	-11.6	-.3	-18.7	-53	-4	-14	+	-71	-255	-3	-328
19 Minimum price 60p + total off-t discount ba	-5.7	-.7	-2.2	+.0	-8.5	-14.6	-.4	-23.6	-66	-5	-18	+	-90	-315	-4	-408
20 Minimum price 65p + total off-t discount ba	-7.0	-.9	-2.8	+.0	-10.6	-18.0	-.6	-29.2	-81	-7	-23	+	-111	-381	-5	-497
21 Minimum price 70p + total off-t discount ba	-8.2	-1.1	-3.3	+.0	-12.6	-21.1	-.7	-34.5	-95	-9	-28	+	-132	-444	-7	-582

Table A17.10: Summary tables for sensitivity analysis - lower crime AAFs – financial value – moderate drinkers

SUMMARY - HAZARDOUS	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.0	+.0	+.0	+.2	+.4	+.0	+.6	+1	+	+	+	+2	+6	+	+7
2 Minimum price 30p	+0.1	+.0	-.0	+.0	+.1	+.2	+.0	+.3	+	+	-	+	+	-	+	+
3 Minimum price 35p	-0.4	-.1	-.1	+.0	-.5	-.9	-.0	-1.4	-6	-	-1	+	-8	-28	-	-36
4 Minimum price 40p	-1.1	-.2	-.4	+.0	-1.6	-2.7	-.1	-4.5	-19	-2	-3	+	-23	-84	-1	-108
5 Minimum price 45p	-2.2	-.5	-.7	+.0	-3.4	-5.4	-.3	-9.0	-37	-4	-6	+	-47	-164	-2	-213
6 Minimum price 50p	-3.5	-.8	-1.2	+.0	-5.5	-8.8	-.5	-14.8	-60	-7	-10	+	-77	-262	-4	-343
7 Minimum price 55p	-5.0	-1.2	-1.8	+.0	-8.0	-12.7	-.7	-21.4	-85	-10	-15	+	-110	-372	-6	-488
8 Minimum price 60p	-6.6	-1.6	-2.4	+.0	-10.6	-16.8	-.9	-28.3	-112	-13	-20	+	-145	-486	-8	-640
9 Minimum price 65p	-8.3	-2.0	-3.1	+.0	-13.3	-21.0	-1.1	-35.4	-140	-16	-26	+	-182	-603	-10	-795
10 Minimum price 70p	-10.1	-2.4	-3.8	+.0	-16.3	-25.8	-1.3	-43.4	-170	-20	-31	+	-221	-724	-12	-957
11 Total off-trade discount ban	-1.6	-.5	-.8	+.0	-2.9	-4.2	-.3	-7.4	-27	-4	-6	+	-37	-121	-2	-160
12 Minimum price 25p + total off-t discount ba	-1.6	-.5	-.8	+.0	-2.8	-4.2	-.3	-7.3	-27	-4	-6	+	-37	-120	-2	-160
13 Minimum price 30p + total off-t discount ba	-1.7	-.5	-.8	+.0	-2.9	-4.4	-.3	-7.6	-28	-4	-7	+	-38	-125	-2	-166
14 Minimum price 35p + total off-t discount ba	-2.0	-.5	-.9	+.0	-3.3	-5.1	-.3	-8.7	-33	-4	-7	+	-44	-147	-3	-194
15 Minimum price 40p + total off-t discount ba	-2.6	-.6	-1.1	+.0	-4.3	-6.6	-.3	-11.2	-43	-5	-9	+	-57	-194	-3	-254
16 Minimum price 45p + total off-t discount ba	-3.5	-.8	-1.4	+.0	-5.7	-8.9	-.5	-15.0	-59	-7	-11	+	-77	-260	-4	-341
17 Minimum price 50p + total off-t discount ba	-4.6	-1.1	-1.8	+.0	-7.5	-11.7	-.6	-19.9	-78	-9	-15	+	-102	-341	-6	-449
18 Minimum price 55p + total off-t discount ba	-5.9	-1.4	-2.3	+.0	-9.7	-15.1	-.8	-25.5	-100	-12	-19	+	-131	-436	-7	-574
19 Minimum price 60p + total off-t discount ba	-7.4	-1.8	-2.8	+.0	-12.0	-18.8	-1.0	-31.8	-124	-15	-24	+	-163	-539	-9	-710
20 Minimum price 65p + total off-t discount ba	-9.1	-2.1	-3.5	+.0	-14.7	-23.2	-1.2	-39.0	-152	-18	-29	+	-198	-652	-11	-861
21 Minimum price 70p + total off-t discount ba	-10.7	-2.5	-4.1	+.0	-17.3	-27.4	-1.4	-46.1	-179	-21	-34	+	-234	-763	-13	-1,009

Table A17.11: Summary tables for sensitivity analysis – lower crime AAFs – financial value – hazardous drinkers

SUMMARY - HARMFUL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	-0.2	-.0	-.1	-2.1	-2.4	-.4	-.0	-2.8	-4	-	-1	-18	-22	-16	-	-39
2 Minimum price 30p	-0.4	-.1	-.1	-5.4	-6.0	-1.0	-.0	-7.0	-9	-	-1	-45	-55	-40	-	-95
3 Minimum price 35p	-0.9	-.2	-.3	-11.0	-12.3	-2.1	-.1	-14.5	-19	-1	-2	-92	-114	-83	-1	-198
4 Minimum price 40p	-1.5	-.3	-.5	-19.4	-21.8	-3.7	-.2	-25.7	-34	-3	-4	-161	-202	-148	-2	-351
5 Minimum price 45p	-2.3	-.5	-.8	-29.6	-33.3	-5.8	-.3	-39.3	-51	-4	-7	-246	-308	-225	-2	-536
6 Minimum price 50p	-3.3	-.7	-1.1	-40.9	-46.0	-8.1	-.4	-54.5	-71	-6	-9	-340	-427	-313	-3	-743
7 Minimum price 55p	-4.3	-.9	-1.5	-52.2	-58.8	-10.5	-.5	-69.8	-91	-8	-12	-434	-545	-404	-5	-954
8 Minimum price 60p	-5.2	-1.1	-1.8	-61.4	-69.5	-12.8	-.6	-82.9	-110	-9	-15	-511	-646	-488	-6	-1,140
9 Minimum price 65p	-6.1	-1.3	-2.2	-69.8	-79.4	-15.2	-.7	-95.3	-130	-11	-18	-581	-739	-574	-7	-1,319
10 Minimum price 70p	-7.0	-1.5	-2.5	-76.8	-87.7	-17.4	-.8	-105.9	-148	-12	-21	-638	-819	-655	-7	-1,481
11 Total off-trade discount ban	-0.9	-.2	-.4	-14.1	-15.5	-2.3	-.1	-17.9	-20	-2	-3	-117	-141	-87	-1	-229
12 Minimum price 25p + total off-t discount ba	-1.1	-.2	-.4	-15.8	-17.5	-2.6	-.1	-20.3	-23	-2	-3	-132	-160	-102	-1	-263
13 Minimum price 30p + total off-t discount ba	-1.3	-.2	-.5	-18.3	-20.3	-3.1	-.1	-23.6	-27	-2	-4	-152	-186	-121	-1	-308
14 Minimum price 35p + total off-t discount ba	-1.6	-.3	-.6	-22.7	-25.3	-4.1	-.2	-29.5	-36	-3	-5	-189	-232	-159	-2	-393
15 Minimum price 40p + total off-t discount ba	-2.2	-.4	-.8	-29.4	-32.9	-5.5	-.2	-38.6	-48	-4	-7	-245	-303	-213	-2	-519
16 Minimum price 45p + total off-t discount ba	-2.9	-.6	-1.0	-37.9	-42.4	-7.2	-.3	-50.0	-63	-5	-9	-315	-392	-280	-3	-675
17 Minimum price 50p + total off-t discount ba	-3.7	-.8	-1.3	-47.3	-53.2	-9.3	-.4	-62.9	-81	-6	-11	-394	-492	-357	-4	-853
18 Minimum price 55p + total off-t discount ba	-4.6	-1.0	-1.7	-56.7	-64.0	-11.5	-.5	-76.0	-99	-8	-14	-472	-593	-439	-5	-1,037
19 Minimum price 60p + total off-t discount ba	-5.5	-1.2	-2.0	-64.9	-73.5	-13.6	-.6	-87.7	-117	-10	-16	-539	-682	-517	-6	-1,205
20 Minimum price 65p + total off-t discount ba	-6.4	-1.3	-2.3	-72.4	-82.4	-15.9	-.7	-99.0	-135	-11	-19	-602	-767	-599	-7	-1,373
21 Minimum price 70p + total off-t discount ba	-7.2	-1.5	-2.6	-78.7	-90.1	-18.0	-.8	-108.9	-153	-12	-22	-655	-841	-676	-8	-1,525

Table A17.12: Summary tables for sensitivity analysis – lower crime AAFs – financial value – harmful drinkers

Appendix 18: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade

SUMMARY - TOTAL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.1%	-1.7	+1.4	-0.7	+0.0	-1.0	+7.5	+6.9	-0.6	+2.1	+15.9	+0.6%	+4.16	+1.94
2 Minimum price 30p	-0.4%	-3.8	+3.0	-2.4	+0.0	-3.2	+15.9	+14.0	-2.2	+4.3	+32.1	+1.2%	+8.37	+4.76
3 Minimum price 35p	-1.1%	-6.2	+4.1	-6.7	+0.0	-8.7	+29.1	+23.2	-5.9	+7.2	+53.6	+1.9%	+13.97	+10.26
4 Minimum price 40p	-2.3%	-9.0	+3.1	-12.7	+0.0	-18.6	+47.4	+35.2	-12.6	+10.9	+81.0	+2.9%	+21.12	+19.44
5 Minimum price 45p	-4.0%	-12.6	+0.5	-20.3	+0.0	-32.4	+67.5	+48.7	-21.9	+15.1	+109.4	+4.0%	+28.53	+31.87
6 Minimum price 50p	-6.1%	-16.8	-4.3	-28.4	+0.0	-49.4	+86.8	+63.4	-33.8	+19.6	+135.9	+4.9%	+35.45	+47.06
7 Minimum price 55p	-8.5%	-20.5	-11.5	-36.8	-0.0	-68.8	+104.8	+79.3	-47.5	+24.3	+161.0	+5.8%	+41.99	+64.96
8 Minimum price 60p	-10.9%	-22.7	-20.3	-45.4	-0.1	-88.4	+120.5	+96.7	-61.9	+29.3	+184.5	+6.7%	+48.14	+84.76
9 Minimum price 65p	-13.4%	-24.9	-30.1	-53.9	-0.1	-109.1	+130.1	+115.5	-77.8	+34.3	+202.2	+7.3%	+52.74	+105.91
10 Minimum price 70p	-15.9%	-27.4	-40.7	-61.4	-0.2	-129.7	+133.4	+134.8	-94.3	+39.5	+213.3	+7.7%	+55.65	+127.72
11 Total off-trade discount ban	-2.6%	-4.5	-12.7	-3.6	-0.2	-21.0	+42.4	+11.8	-9.6	+3.7	+48.3	+1.7%	+12.60	+20.63
12 Minimum price 25p + total off-t discount ban	-2.7%	-5.8	-11.7	-4.3	-0.2	-22.0	+48.4	+17.8	-10.4	+5.5	+61.3	+2.2%	+16.00	+22.29
13 Minimum price 30p + total off-t discount ban	-2.9%	-7.2	-10.6	-6.0	-0.2	-23.9	+54.9	+23.6	-11.8	+7.3	+74.0	+2.7%	+19.30	+24.52
14 Minimum price 35p + total off-t discount ban	-3.5%	-8.8	-9.8	-9.9	-0.2	-28.6	+65.1	+31.6	-15.3	+9.8	+91.3	+3.3%	+23.81	+28.98
15 Minimum price 40p + total off-t discount ban	-4.5%	-10.7	-10.7	-15.3	-0.2	-36.9	+79.0	+42.3	-21.3	+13.1	+113.1	+4.1%	+29.51	+36.53
16 Minimum price 45p + total off-t discount ban	-6.0%	-13.5	-12.7	-22.1	-0.2	-48.6	+93.9	+54.5	-29.8	+16.9	+135.5	+4.9%	+35.34	+46.90
17 Minimum price 50p + total off-t discount ban	-7.8%	-17.1	-16.3	-29.6	-0.2	-63.2	+107.4	+68.1	-40.6	+21.0	+155.9	+5.6%	+40.66	+59.75
18 Minimum price 55p + total off-t discount ban	-9.8%	-20.5	-21.9	-37.5	-0.2	-80.1	+119.8	+83.1	-53.4	+25.5	+175.0	+6.3%	+45.65	+75.36
19 Minimum price 60p + total off-t discount ban	-12.0%	-22.5	-29.3	-46.0	-0.2	-98.0	+130.8	+99.9	-67.3	+30.2	+193.6	+7.0%	+50.51	+93.45
20 Minimum price 65p + total off-t discount ban	-14.4%	-24.7	-38.1	-54.4	-0.3	-117.4	+136.8	+118.2	-82.8	+35.2	+207.3	+7.5%	+54.09	+113.36
21 Minimum price 70p + total off-t discount ban	-16.9%	-27.1	-47.9	-61.8	-0.3	-137.1	+137.1	+137.2	-99.2	+40.2	+215.3	+7.8%	+56.17	+134.23

Table A18.1: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade – consumption analysis – overall population

SUMMARY - MODERATE	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	+0.0%	+0.0	+0.1	-0.0	+0.0	+0.1	+0.8	+1.3	-0.0	+0.4	+2.4	+0.3%	+1.00	+0.36
2 Minimum price 30p	-0.0%	+0.1	+0.2	-0.4	+0.0	-0.1	+1.9	+2.7	-0.2	+0.8	+5.2	+0.6%	+2.16	+0.95
3 Minimum price 35p	-0.3%	+0.2	+0.1	-1.2	+0.0	-0.9	+4.1	+4.5	-0.6	+1.4	+9.5	+1.1%	+3.90	+2.29
4 Minimum price 40p	-0.8%	+0.2	-0.5	-2.4	+0.0	-2.6	+7.5	+6.9	-1.3	+2.1	+15.2	+1.8%	+6.25	+4.63
5 Minimum price 45p	-1.6%	+0.2	-1.5	-3.9	+0.0	-5.3	+11.8	+9.5	-2.4	+2.9	+21.8	+2.6%	+9.00	+7.99
6 Minimum price 50p	-2.7%	+0.0	-2.9	-5.8	-0.0	-8.7	+16.6	+12.4	-3.8	+3.8	+29.1	+3.4%	+11.98	+12.26
7 Minimum price 55p	-4.0%	-0.2	-4.9	-7.6	-0.0	-12.8	+21.7	+15.6	-5.4	+4.7	+36.6	+4.3%	+15.08	+17.43
8 Minimum price 60p	-5.5%	-0.5	-7.3	-9.6	-0.1	-17.5	+26.5	+19.0	-7.4	+5.7	+43.9	+5.2%	+18.10	+23.27
9 Minimum price 65p	-7.0%	-0.8	-9.8	-11.7	-0.1	-22.5	+30.6	+22.9	-9.6	+6.8	+50.6	+6.0%	+20.86	+29.65
10 Minimum price 70p	-8.6%	-1.1	-12.5	-13.8	-0.2	-27.6	+33.7	+26.9	-12.0	+7.9	+56.4	+6.7%	+23.26	+36.28
11 Total off-trade discount ban	-1.5%	-0.5	-3.4	-1.0	-0.1	-4.9	+9.3	+2.4	-1.1	+0.7	+11.2	+1.3%	+4.63	+6.50
12 Minimum price 25p + total off-t discount ba	-1.5%	-0.5	-3.3	-1.0	-0.1	-4.9	+9.9	+3.4	-1.2	+1.0	+13.3	+1.6%	+5.47	+6.81
13 Minimum price 30p + total off-t discount ba	-1.6%	-0.4	-3.2	-1.3	-0.1	-5.0	+10.8	+4.6	-1.3	+1.4	+15.5	+1.8%	+6.40	+7.28
14 Minimum price 35p + total off-t discount ba	-1.8%	-0.2	-3.3	-2.1	-0.1	-5.7	+12.6	+6.2	-1.7	+1.9	+19.0	+2.2%	+7.84	+8.38
15 Minimum price 40p + total off-t discount ba	-2.2%	+0.0	-3.8	-3.2	-0.1	-7.1	+15.2	+8.4	-2.4	+2.5	+23.8	+2.8%	+9.79	+10.31
16 Minimum price 45p + total off-t discount ba	-2.9%	+0.1	-4.6	-4.6	-0.1	-9.2	+18.5	+10.8	-3.3	+3.3	+29.2	+3.4%	+12.03	+13.08
17 Minimum price 50p + total off-t discount ba	-3.8%	-0.0	-5.8	-6.2	-0.1	-12.1	+22.1	+13.5	-4.6	+4.1	+35.1	+4.1%	+14.46	+16.63
18 Minimum price 55p + total off-t discount ba	-4.9%	-0.2	-7.4	-7.9	-0.1	-15.6	+26.0	+16.4	-6.1	+5.0	+41.3	+4.9%	+17.00	+21.07
19 Minimum price 60p + total off-t discount ba	-6.2%	-0.4	-9.4	-9.9	-0.2	-19.8	+29.8	+19.7	-8.0	+5.9	+47.5	+5.6%	+19.55	+26.35
20 Minimum price 65p + total off-t discount ba	-7.7%	-0.8	-11.6	-11.9	-0.2	-24.6	+33.0	+23.5	-10.2	+7.0	+53.3	+6.3%	+21.96	+32.30
21 Minimum price 70p + total off-t discount ba	-9.2%	-1.1	-14.1	-14.0	-0.2	-29.4	+35.5	+27.4	-12.5	+8.0	+58.4	+6.9%	+24.07	+38.61

Table A18.2: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade – consumption analysis – moderate drinkers

SUMMARY - HAZARDOUS	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	+0.1%	-1.9	+3.9	-1.1	+0.0	+0.8	+3.3	+3.2	+0.1	+1.0	+7.6	+0.7%	+7.92	+2.90
2 Minimum price 30p	-0.0%	-4.2	+8.0	-3.9	+0.1	-0.1	+6.9	+6.5	-0.1	+2.0	+15.3	+1.3%	+16.08	+7.13
3 Minimum price 35p	-0.4%	-6.8	+11.3	-10.8	+0.1	-6.3	+12.7	+10.8	-1.3	+3.3	+25.5	+2.2%	+26.79	+15.78
4 Minimum price 40p	-1.5%	-10.0	+10.3	-21.2	+0.1	-20.7	+21.0	+16.5	-3.7	+5.1	+38.9	+3.4%	+40.81	+31.30
5 Minimum price 45p	-3.0%	-14.4	+5.9	-34.5	+0.1	-42.9	+30.3	+23.0	-7.6	+7.1	+52.9	+4.6%	+55.42	+52.94
6 Minimum price 50p	-5.1%	-19.8	-3.3	-49.0	+0.1	-72.0	+39.5	+30.0	-12.7	+9.3	+66.1	+5.8%	+69.29	+80.02
7 Minimum price 55p	-7.5%	-24.1	-18.3	-63.8	+0.1	-106.1	+48.4	+37.6	-18.7	+11.6	+79.0	+6.9%	+82.81	+112.62
8 Minimum price 60p	-10.0%	-26.3	-36.9	-78.8	+0.1	-141.9	+56.1	+45.9	-25.2	+13.9	+90.7	+7.9%	+95.14	+148.81
9 Minimum price 65p	-12.7%	-29.1	-57.7	-93.4	-0.0	-180.2	+60.8	+54.7	-32.5	+16.4	+99.4	+8.7%	+104.21	+187.41
10 Minimum price 70p	-15.5%	-32.4	-80.2	-106.5	-0.1	-219.2	+62.1	+63.8	-40.3	+18.8	+104.4	+9.1%	+109.48	+227.14
11 Total off-trade discount ban	-2.8%	-6.3	-27.2	-6.5	-0.2	-40.3	+19.3	+5.8	-4.8	+1.8	+22.1	+1.9%	+23.14	+39.02
12 Minimum price 25p + total off-t discount ba	-2.8%	-7.8	-24.3	-7.7	-0.2	-40.0	+21.9	+8.5	-4.8	+2.6	+28.3	+2.5%	+29.64	+41.51
13 Minimum price 30p + total off-t discount ba	-2.9%	-9.2	-21.4	-10.4	-0.2	-41.1	+24.8	+11.2	-5.1	+3.5	+34.5	+3.0%	+36.16	+44.87
14 Minimum price 35p + total off-t discount ba	-3.3%	-10.6	-18.9	-16.7	-0.2	-46.4	+29.4	+15.0	-6.2	+4.6	+42.8	+3.7%	+44.92	+51.88
15 Minimum price 40p + total off-t discount ba	-4.1%	-12.4	-19.8	-26.0	-0.2	-58.4	+35.8	+20.0	-8.4	+6.2	+53.6	+4.7%	+56.20	+64.53
16 Minimum price 45p + total off-t discount ba	-5.4%	-15.6	-23.1	-37.9	-0.2	-76.8	+42.7	+25.9	-11.9	+8.0	+64.7	+5.6%	+67.83	+82.40
17 Minimum price 50p + total off-t discount ba	-7.2%	-20.3	-29.8	-51.0	-0.2	-101.2	+49.1	+32.3	-16.4	+10.0	+74.9	+6.5%	+78.59	+104.97
18 Minimum price 55p + total off-t discount ba	-9.2%	-23.9	-41.2	-65.0	-0.2	-130.3	+55.2	+39.5	-22.0	+12.1	+84.9	+7.4%	+88.99	+133.00
19 Minimum price 60p + total off-t discount ba	-11.5%	-25.8	-56.6	-79.8	-0.2	-162.5	+60.5	+47.4	-28.2	+14.4	+94.2	+8.2%	+98.74	+165.76
20 Minimum price 65p + total off-t discount ba	-14.0%	-28.4	-75.2	-94.3	-0.2	-198.1	+63.3	+56.1	-35.3	+16.8	+100.8	+8.8%	+105.75	+201.87
21 Minimum price 70p + total off-t discount ba	-16.6%	-31.7	-96.0	-107.2	-0.3	-235.2	+63.2	+65.0	-43.0	+19.2	+104.3	+9.1%	+109.34	+239.76

Table A18.3: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade – consumption analysis – hazardous drinkers

SUMMARY - HARMFUL	Mean annual consumption per drinker (units)						Total spending on alcohol (£ millions)						Per drinker (£ p)	
Policy Scenario	% change in consumption (all beverages)	Beer/Cider	Wine	Spirit	RTD	All beverages	Off retail (exc duty + VAT)	On retail (exc duty + VAT)	Off duty + VAT	On duty + VAT	Total spending change	% spending change	Change in spend per drinker p.a.	Change in spend p.a. if no change in consump.
1 Minimum price 25p	-0.5%	-18.2	+5.4	-5.2	+0.1	-17.9	+3.6	+2.5	-0.7	+0.8	+6.3	+1.0%	+22.85	+14.64
2 Minimum price 30p	-1.4%	-41.2	+13.0	-17.8	+0.1	-46.0	+7.4	+4.8	-1.8	+1.5	+12.0	+1.9%	+43.75	+35.15
3 Minimum price 35p	-2.9%	-67.6	+18.6	-47.9	+0.0	-96.8	+13.1	+7.9	-4.2	+2.5	+19.3	+3.0%	+70.66	+72.11
4 Minimum price 40p	-5.2%	-98.3	+12.1	-88.5	-0.1	-174.8	+20.3	+11.9	-7.8	+3.7	+28.1	+4.3%	+102.68	+129.52
5 Minimum price 45p	-8.1%	-134.1	-1.5	-137.5	-0.1	-273.1	+27.3	+16.3	-12.5	+5.1	+36.2	+5.6%	+132.14	+202.87
6 Minimum price 50p	-11.4%	-173.5	-25.1	-189.0	-0.2	-387.8	+33.1	+21.0	-18.3	+6.5	+42.4	+6.5%	+154.71	+288.64
7 Minimum price 55p	-15.1%	-208.9	-59.1	-241.9	-0.4	-510.4	+37.5	+26.0	-24.7	+8.1	+46.9	+7.2%	+171.21	+384.91
8 Minimum price 60p	-18.5%	-228.8	-100.3	-296.2	-0.7	-626.0	+41.0	+31.3	-31.0	+9.6	+51.0	+7.9%	+186.20	+488.75
9 Minimum price 65p	-22.0%	-247.2	-146.7	-350.8	-1.0	-745.6	+42.0	+37.1	-37.9	+11.2	+52.4	+8.1%	+191.35	+598.27
10 Minimum price 70p	-25.4%	-267.3	-197.3	-395.0	-1.4	-860.9	+40.7	+42.9	-44.7	+12.9	+51.8	+8.0%	+189.03	+710.71
11 Total off-trade discount ban	-3.5%	-39.0	-57.7	-20.3	-0.8	-117.9	+14.7	+3.6	-3.9	+1.1	+15.5	+2.4%	+56.51	+100.85
12 Minimum price 25p + total off-t discount ba	-3.9%	-53.2	-54.2	-25.5	-0.8	-133.8	+17.5	+5.8	-4.6	+1.8	+20.5	+3.2%	+75.00	+113.32
13 Minimum price 30p + total off-t discount ba	-4.6%	-69.7	-49.1	-37.4	-0.8	-157.0	+20.4	+7.7	-5.7	+2.4	+24.9	+3.8%	+90.91	+129.48
14 Minimum price 35p + total off-t discount ba	-5.9%	-88.7	-45.1	-65.3	-0.8	-200.0	+24.7	+10.4	-7.8	+3.3	+30.6	+4.7%	+111.81	+159.69
15 Minimum price 40p + total off-t discount ba	-7.9%	-112.0	-51.0	-102.5	-0.9	-266.4	+30.0	+14.0	-11.1	+4.4	+37.3	+5.8%	+136.28	+207.35
16 Minimum price 45p + total off-t discount ba	-10.4%	-141.7	-62.0	-147.1	-1.0	-351.8	+35.1	+18.0	-15.4	+5.6	+43.4	+6.7%	+158.37	+269.67
17 Minimum price 50p + total off-t discount ba	-13.4%	-177.1	-80.1	-194.6	-1.1	-452.9	+39.0	+22.3	-20.7	+7.0	+47.6	+7.4%	+173.98	+343.78
18 Minimum price 55p + total off-t discount ba	-16.6%	-209.9	-107.3	-245.2	-1.3	-563.7	+41.7	+27.1	-26.8	+8.4	+50.4	+7.8%	+184.26	+429.85
19 Minimum price 60p + total off-t discount ba	-19.8%	-228.2	-142.6	-298.8	-1.5	-671.1	+43.8	+32.2	-32.9	+9.9	+53.1	+8.2%	+194.06	+526.29
20 Minimum price 65p + total off-t discount ba	-23.2%	-246.0	-184.3	-352.9	-1.8	-785.1	+43.7	+37.9	-39.6	+11.5	+53.4	+8.3%	+195.02	+630.46
21 Minimum price 70p + total off-t discount ba	-26.4%	-265.8	-231.5	-396.7	-2.1	-896.1	+41.5	+43.6	-46.4	+13.1	+51.8	+8.0%	+189.20	+738.86

Table A18.4: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade – consumption analysis – harmful drinkers

SUMMARY - TOTAL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-1	-0.0	+0.0	+0.0	+0.0	-13	-0.1	+0.0	-0.2	-0.1	+0.1	+0.1	+0.1	+0.3	+0.0	+0.0	-0.1
2 Minimum price 30p	-5	-0.0	-0.0	-0.1	-0.0	-38	-0.3	-0.0	-0.6	-0.8	+0.1	+0.1	+0.1	+0.3	+0.0	-0.7	-0.2
3 Minimum price 35p	-16	-0.1	-0.2	-0.3	-0.1	-95	-0.7	-0.2	-1.6	-2.4	+0.0	+0.1	-0.0	+0.1	+0.0	-3.2	-0.4
4 Minimum price 40p	-35	-0.1	-0.4	-0.7	-0.1	-194	-1.4	-0.4	-3.2	-5.0	-0.1	-0.1	-0.2	-0.4	-0.0	-8.4	-0.7
5 Minimum price 45p	-59	-0.2	-0.7	-1.2	-0.3	-320	-2.3	-0.8	-5.3	-8.6	-0.3	-0.5	-0.4	-1.3	-0.0	-16.2	-1.1
6 Minimum price 50p	-88	-0.3	-1.1	-1.9	-0.4	-469	-3.3	-1.2	-7.9	-12.8	-0.6	-1.0	-0.8	-2.4	-0.0	-26.4	-1.6
7 Minimum price 55p	-119	-0.4	-1.5	-2.6	-0.5	-626	-4.5	-1.7	-10.6	-17.4	-1.0	-1.5	-1.2	-3.8	-0.0	-38.3	-2.0
8 Minimum price 60p	-151	-0.5	-2.0	-3.3	-0.7	-779	-5.6	-2.2	-13.3	-22.0	-1.4	-2.1	-1.7	-5.2	-0.0	-51.0	-2.4
9 Minimum price 65p	-184	-0.7	-2.5	-4.1	-0.9	-935	-6.7	-2.7	-16.0	-26.7	-1.8	-2.7	-2.2	-6.7	-0.1	-64.6	-2.7
10 Minimum price 70p	-216	-0.8	-3.0	-4.8	-1.1	-1083	-7.8	-3.3	-18.7	-31.4	-2.2	-3.4	-2.7	-8.2	-0.1	-78.3	-3.0
11 Total off-trade discount ban	-32	-0.1	-0.5	-0.7	-0.2	-162	-1.2	-0.5	-2.8	-4.8	-0.5	-0.8	-0.6	-1.9	-0.0	-15.3	-0.6
12 Minimum price 25p + total off-t discount bar	-34	-0.1	-0.5	-0.8	-0.2	-175	-1.3	-0.5	-3.0	-5.1	-0.4	-0.7	-0.5	-1.6	-0.0	-15.4	-0.6
13 Minimum price 30p + total off-t discount bar	-37	-0.1	-0.5	-0.8	-0.2	-197	-1.4	-0.5	-3.4	-5.6	-0.4	-0.6	-0.5	-1.6	-0.0	-16.0	-0.7
14 Minimum price 35p + total off-t discount bar	-46	-0.2	-0.6	-1.0	-0.2	-246	-1.8	-0.7	-4.2	-6.9	-0.4	-0.7	-0.6	-1.7	-0.0	-18.0	-0.9
15 Minimum price 40p + total off-t discount bar	-62	-0.2	-0.8	-1.3	-0.3	-327	-2.3	-0.9	-5.5	-9.1	-0.5	-0.8	-0.7	-2.0	-0.0	-22.2	-1.1
16 Minimum price 45p + total off-t discount bar	-82	-0.3	-1.1	-1.8	-0.4	-435	-3.1	-1.2	-7.3	-12.1	-0.7	-1.0	-0.9	-2.6	-0.0	-28.7	-1.4
17 Minimum price 50p + total off-t discount bar	-107	-0.4	-1.4	-2.3	-0.5	-561	-4.0	-1.5	-9.5	-15.7	-0.9	-1.4	-1.2	-3.5	-0.0	-37.1	-1.8
18 Minimum price 55p + total off-t discount bar	-135	-0.5	-1.8	-3.0	-0.6	-699	-5.0	-2.0	-11.9	-19.7	-1.2	-1.9	-1.6	-4.7	-0.0	-47.4	-2.2
19 Minimum price 60p + total off-t discount bar	-164	-0.6	-2.2	-3.6	-0.8	-839	-6.0	-2.4	-14.3	-23.9	-1.6	-2.4	-2.0	-6.0	-0.0	-58.7	-2.5
20 Minimum price 65p + total off-t discount bar	-194	-0.7	-2.6	-4.3	-0.9	-985	-7.1	-2.9	-16.9	-28.3	-2.0	-3.0	-2.4	-7.4	-0.1	-71.3	-2.8
21 Minimum price 70p + total off-t discount bar	-225	-0.8	-3.1	-5.1	-1.1	-1126	-8.2	-3.5	-19.6	-32.8	-2.3	-3.6	-2.9	-8.8	-0.1	-84.3	-3.1

Table A18.5: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade – harm analysis – overall population

SUMMARY - MODERATE	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	+0	-0.0	+0.0	+0.0	+0.0	+0	-0.0	+0.0	+0.0	+0.1	+0.0	+0.1	+0.0	+0.2	+0.0	+0.4	+0.0
2 Minimum price 30p	-0	-0.0	-0.0	-0.0	+0.0	-0	-0.0	-0.0	-0.0	-0.1	+0.1	+0.1	+0.1	+0.3	+0.0	+0.6	+0.0
3 Minimum price 35p	-2	-0.0	-0.0	-0.0	-0.0	-2	-0.0	-0.0	-0.1	-0.3	+0.1	+0.2	+0.1	+0.4	+0.0	+0.3	+0.0
4 Minimum price 40p	-5	-0.0	-0.1	-0.1	-0.0	-6	-0.1	-0.1	-0.3	-0.8	+0.1	+0.2	+0.1	+0.4	+0.0	-0.8	+0.0
5 Minimum price 45p	-10	-0.0	-0.2	-0.3	-0.1	-11	-0.2	-0.2	-0.5	-1.5	+0.1	+0.2	+0.1	+0.4	+0.0	-2.7	+0.0
6 Minimum price 50p	-15	-0.0	-0.3	-0.4	-0.1	-16	-0.2	-0.3	-0.8	-2.4	+0.1	+0.1	+0.0	+0.2	+0.0	-5.4	+0.0
7 Minimum price 55p	-22	-0.0	-0.5	-0.6	-0.1	-23	-0.3	-0.5	-1.2	-3.4	-0.0	+0.0	-0.1	-0.0	-0.0	-8.9	+0.0
8 Minimum price 60p	-29	-0.0	-0.6	-0.8	-0.2	-31	-0.4	-0.7	-1.5	-4.4	-0.1	-0.1	-0.2	-0.3	-0.0	-13.0	+0.0
9 Minimum price 65p	-36	-0.1	-0.8	-1.0	-0.2	-38	-0.6	-0.8	-1.9	-5.5	-0.2	-0.2	-0.3	-0.7	-0.0	-17.5	+0.0
10 Minimum price 70p	-43	-0.1	-1.0	-1.2	-0.3	-46	-0.7	-1.0	-2.3	-6.6	-0.3	-0.4	-0.4	-1.1	-0.0	-22.1	+0.0
11 Total off-trade discount ban	-7	-0.0	-0.2	-0.2	-0.0	-8	-0.1	-0.2	-0.4	-1.1	-0.1	-0.2	-0.2	-0.5	-0.0	-5.0	+0.0
12 Minimum price 25p + total off-t discount ba	-7	-0.0	-0.2	-0.2	-0.0	-8	-0.1	-0.2	-0.4	-1.1	-0.1	-0.1	-0.1	-0.3	-0.0	-4.7	+0.0
13 Minimum price 30p + total off-t discount ba	-7	-0.0	-0.2	-0.2	-0.1	-8	-0.1	-0.2	-0.4	-1.2	-0.1	-0.1	-0.1	-0.2	-0.0	-4.6	+0.0
14 Minimum price 35p + total off-t discount ba	-9	-0.0	-0.2	-0.2	-0.1	-10	-0.1	-0.2	-0.5	-1.4	-0.0	-0.0	-0.1	-0.1	-0.0	-4.7	+0.0
15 Minimum price 40p + total off-t discount ba	-11	-0.0	-0.3	-0.3	-0.1	-13	-0.2	-0.3	-0.6	-1.8	-0.0	+0.0	-0.0	-0.0	-0.0	-5.5	+0.0
16 Minimum price 45p + total off-t discount ba	-15	-0.0	-0.3	-0.4	-0.1	-17	-0.2	-0.4	-0.8	-2.4	-0.0	+0.0	-0.1	-0.0	-0.0	-7.0	+0.0
17 Minimum price 50p + total off-t discount ba	-20	-0.0	-0.4	-0.5	-0.1	-22	-0.3	-0.5	-1.1	-3.1	-0.0	-0.0	-0.1	-0.1	-0.0	-9.1	+0.0
18 Minimum price 55p + total off-t discount ba	-25	-0.0	-0.6	-0.7	-0.2	-27	-0.4	-0.6	-1.4	-4.0	-0.1	-0.1	-0.2	-0.3	-0.0	-12.0	+0.0
19 Minimum price 60p + total off-t discount ba	-31	-0.1	-0.7	-0.9	-0.2	-34	-0.5	-0.7	-1.7	-4.9	-0.2	-0.2	-0.2	-0.6	-0.0	-15.6	+0.0
20 Minimum price 65p + total off-t discount ba	-38	-0.1	-0.9	-1.1	-0.3	-41	-0.6	-0.9	-2.1	-5.9	-0.3	-0.3	-0.4	-0.9	-0.0	-19.8	+0.0
21 Minimum price 70p + total off-t discount ba	-45	-0.1	-1.0	-1.3	-0.3	-48	-0.7	-1.1	-2.5	-6.9	-0.4	-0.4	-0.5	-1.3	-0.0	-24.1	+0.0

Table A18.6: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade – harm analysis – moderate drinkers

SUMMARY - HAZARDOUS	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	+1	+0.0	+0.0	+0.0	+0.0	+2	+0.0	+0.0	+0.0	+0.1	+0.0	+0.0	+0.0	+0.1	+0.0	+0.2	+0.0
2 Minimum price 30p	+0	-0.0	+0.0	+0.0	+0.0	-1	-0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.1	+0.0	+0.1	+0.0
3 Minimum price 35p	-3	-0.0	-0.0	-0.1	-0.0	-18	-0.1	-0.1	-0.3	-0.5	-0.0	-0.0	-0.0	-0.1	-0.0	-0.8	+0.0
4 Minimum price 40p	-10	-0.0	-0.1	-0.2	-0.0	-56	-0.4	-0.2	-0.8	-1.4	-0.1	-0.1	-0.1	-0.3	-0.0	-2.9	+0.0
5 Minimum price 45p	-20	-0.1	-0.3	-0.4	-0.1	-109	-0.7	-0.3	-1.7	-2.8	-0.2	-0.3	-0.3	-0.8	-0.0	-6.1	+0.0
6 Minimum price 50p	-32	-0.1	-0.4	-0.7	-0.1	-174	-1.1	-0.5	-2.7	-4.5	-0.4	-0.6	-0.5	-1.4	-0.0	-10.6	+0.0
7 Minimum price 55p	-46	-0.2	-0.6	-1.0	-0.2	-245	-1.6	-0.7	-3.8	-6.4	-0.5	-0.9	-0.7	-2.1	-0.0	-15.8	+0.0
8 Minimum price 60p	-60	-0.2	-0.8	-1.3	-0.3	-317	-2.1	-1.0	-5.0	-8.4	-0.7	-1.1	-0.9	-2.7	-0.0	-21.3	+0.0
9 Minimum price 65p	-74	-0.2	-1.0	-1.6	-0.4	-392	-2.6	-1.2	-6.3	-10.5	-0.9	-1.4	-1.1	-3.4	-0.0	-27.2	+0.0
10 Minimum price 70p	-88	-0.3	-1.2	-2.0	-0.4	-464	-3.2	-1.5	-7.6	-12.6	-1.1	-1.7	-1.4	-4.2	-0.0	-33.3	+0.0
11 Total off-trade discount ban	-14	-0.0	-0.2	-0.3	-0.1	-80	-0.5	-0.2	-1.2	-2.1	-0.3	-0.4	-0.3	-0.9	-0.0	-6.9	+0.0
12 Minimum price 25p + total off-t discount ba	-14	-0.0	-0.2	-0.3	-0.1	-79	-0.5	-0.2	-1.2	-2.1	-0.2	-0.4	-0.3	-0.9	-0.0	-6.9	+0.0
13 Minimum price 30p + total off-t discount ba	-15	-0.0	-0.2	-0.3	-0.1	-82	-0.5	-0.2	-1.3	-2.2	-0.2	-0.4	-0.3	-0.9	-0.0	-7.0	+0.0
14 Minimum price 35p + total off-t discount ba	-17	-0.1	-0.2	-0.4	-0.1	-97	-0.6	-0.3	-1.5	-2.5	-0.2	-0.4	-0.3	-0.9	-0.0	-7.7	+0.0
15 Minimum price 40p + total off-t discount ba	-23	-0.1	-0.3	-0.5	-0.1	-127	-0.8	-0.4	-1.9	-3.3	-0.3	-0.5	-0.4	-1.1	-0.0	-9.4	+0.0
16 Minimum price 45p + total off-t discount ba	-31	-0.1	-0.4	-0.7	-0.2	-171	-1.1	-0.5	-2.6	-4.5	-0.4	-0.6	-0.5	-1.5	-0.0	-12.1	+0.0
17 Minimum price 50p + total off-t discount ba	-41	-0.1	-0.6	-0.9	-0.2	-224	-1.5	-0.7	-3.5	-5.9	-0.5	-0.8	-0.6	-2.0	-0.0	-15.8	+0.0
18 Minimum price 55p + total off-t discount ba	-53	-0.2	-0.7	-1.2	-0.3	-285	-1.9	-0.9	-4.5	-7.6	-0.7	-1.0	-0.8	-2.5	-0.0	-20.2	+0.0
19 Minimum price 60p + total off-t discount ba	-66	-0.2	-0.9	-1.4	-0.3	-350	-2.3	-1.1	-5.6	-9.3	-0.8	-1.3	-1.0	-3.1	-0.0	-25.0	+0.0
20 Minimum price 65p + total off-t discount ba	-79	-0.3	-1.1	-1.7	-0.4	-419	-2.8	-1.3	-6.7	-11.2	-1.0	-1.6	-1.2	-3.8	-0.0	-30.5	+0.0
21 Minimum price 70p + total off-t discount ba	-93	-0.3	-1.3	-2.1	-0.5	-488	-3.3	-1.6	-8.0	-13.3	-1.2	-1.9	-1.5	-4.5	-0.0	-36.2	+0.0

Table A18.7: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade – harm analysis – hazardous drinkers

SUMMARY - HARMFUL	Health outcomes p.a. (first year)					Health outcomes p.a. (full effect)					Crime outcomes p.a.					Workplace harm p.a.	
Policy Scenario	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	QALYs saved ('000s)	Deaths	Chronic illness ('000s)	Acute illness ('000s)	Hospital admissions ('000s)	Cum. dicounted QALYs Years 1-10 ('000s)	Violent crime ('000s)	Criminal damage ('000s)	Other crime ('000s)	Total crimes ('000s)	QALYs of crime victims ('000s)	Days Absence ('000s days)	Unemployed ('000s people)
1 Minimum price 25p	-2	-0.0	-0.0	-0.0	-0.0	-15	-0.1	-0.0	-0.2	-0.3	+0.0	+0.0	-0.0	+0.0	-0.0	-0.5	-0.1
2 Minimum price 30p	-5	-0.0	-0.0	-0.1	-0.0	-36	-0.3	-0.0	-0.6	-0.7	-0.0	-0.0	-0.0	-0.1	-0.0	-1.3	-0.2
3 Minimum price 35p	-11	-0.1	-0.1	-0.2	-0.0	-75	-0.5	-0.1	-1.2	-1.6	-0.1	-0.1	-0.1	-0.3	-0.0	-2.6	-0.4
4 Minimum price 40p	-19	-0.1	-0.2	-0.4	-0.1	-133	-0.9	-0.2	-2.1	-2.8	-0.1	-0.2	-0.2	-0.5	-0.0	-4.7	-0.7
5 Minimum price 45p	-29	-0.1	-0.2	-0.6	-0.1	-201	-1.4	-0.2	-3.2	-4.2	-0.2	-0.4	-0.3	-0.9	-0.0	-7.3	-1.1
6 Minimum price 50p	-40	-0.2	-0.3	-0.8	-0.1	-279	-2.0	-0.3	-4.4	-5.8	-0.3	-0.5	-0.4	-1.2	-0.0	-10.3	-1.6
7 Minimum price 55p	-52	-0.3	-0.5	-1.0	-0.2	-358	-2.5	-0.5	-5.6	-7.5	-0.4	-0.7	-0.5	-1.7	-0.0	-13.6	-2.0
8 Minimum price 60p	-63	-0.3	-0.6	-1.2	-0.2	-431	-3.0	-0.6	-6.7	-9.1	-0.6	-0.9	-0.6	-2.1	-0.0	-16.6	-2.4
9 Minimum price 65p	-74	-0.3	-0.7	-1.4	-0.3	-504	-3.5	-0.7	-7.8	-10.7	-0.6	-1.0	-0.7	-2.4	-0.0	-19.8	-2.7
10 Minimum price 70p	-85	-0.4	-0.8	-1.7	-0.3	-573	-4.0	-0.8	-8.8	-12.2	-0.7	-1.2	-0.8	-2.7	-0.0	-22.8	-3.0
11 Total off-trade discount ban	-11	-0.1	-0.1	-0.2	-0.0	-75	-0.6	-0.1	-1.2	-1.6	-0.1	-0.2	-0.1	-0.4	-0.0	-3.3	-0.6
12 Minimum price 25p + total off-t discount ba	-13	-0.1	-0.1	-0.3	-0.0	-88	-0.6	-0.1	-1.4	-1.9	-0.1	-0.2	-0.1	-0.4	-0.0	-3.8	-0.6
13 Minimum price 30p + total off-t discount ba	-15	-0.1	-0.1	-0.3	-0.1	-106	-0.8	-0.1	-1.7	-2.3	-0.1	-0.2	-0.2	-0.5	-0.0	-4.4	-0.7
14 Minimum price 35p + total off-t discount ba	-20	-0.1	-0.2	-0.4	-0.1	-139	-1.0	-0.2	-2.2	-3.0	-0.2	-0.3	-0.2	-0.6	-0.0	-5.5	-0.9
15 Minimum price 40p + total off-t discount ba	-27	-0.1	-0.2	-0.5	-0.1	-188	-1.3	-0.2	-3.0	-4.0	-0.2	-0.3	-0.3	-0.8	-0.0	-7.3	-1.1
16 Minimum price 45p + total off-t discount ba	-36	-0.2	-0.3	-0.7	-0.1	-247	-1.8	-0.3	-3.9	-5.2	-0.3	-0.5	-0.3	-1.1	-0.0	-9.5	-1.4
17 Minimum price 50p + total off-t discount ba	-46	-0.2	-0.4	-0.9	-0.2	-315	-2.2	-0.4	-4.9	-6.7	-0.4	-0.6	-0.4	-1.4	-0.0	-12.2	-1.8
18 Minimum price 55p + total off-t discount ba	-56	-0.3	-0.5	-1.1	-0.2	-387	-2.7	-0.5	-6.0	-8.2	-0.5	-0.8	-0.6	-1.8	-0.0	-15.1	-2.2
19 Minimum price 60p + total off-t discount ba	-67	-0.3	-0.6	-1.3	-0.3	-455	-3.2	-0.6	-7.1	-9.6	-0.6	-0.9	-0.7	-2.2	-0.0	-17.9	-2.5
20 Minimum price 65p + total off-t discount ba	-77	-0.4	-0.7	-1.5	-0.3	-525	-3.7	-0.7	-8.1	-11.1	-0.7	-1.1	-0.8	-2.5	-0.0	-20.9	-2.8
21 Minimum price 70p + total off-t discount ba	-87	-0.4	-0.8	-1.7	-0.3	-591	-4.1	-0.8	-9.1	-12.6	-0.7	-1.2	-0.9	-2.8	-0.0	-23.8	-3.1

Table A18.8: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade – harm analysis – harmful drinkers

SUMMARY - TOTAL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.2	-.0	-1.9	-1.6	+.4	+.1	-1.1	-1	+2	-	-16	-15	-7	+1	-21
2 Minimum price 30p	-0.3	+.2	-.1	-4.8	-4.9	-.6	+.1	-5.4	-9	+2	-1	-40	-47	-40	+1	-86
3 Minimum price 35p	-1.3	+.1	-.3	-9.9	-11.4	-3.0	+.0	-14.4	-26	+1	-2	-82	-110	-119	+	-229
4 Minimum price 40p	-2.9	-.4	-.8	-17.6	-21.6	-7.1	-.3	-29.0	-55	-3	-6	-146	-211	-252	-3	-465
5 Minimum price 45p	-5.2	-1.1	-1.5	-26.9	-34.7	-12.8	-.8	-48.3	-95	-9	-13	-224	-340	-429	-8	-776
6 Minimum price 50p	-7.9	-2.1	-2.5	-37.4	-49.9	-19.6	-1.6	-71.0	-141	-17	-20	-311	-490	-639	-14	-1,143
7 Minimum price 55p	-11.0	-3.3	-3.6	-47.7	-65.6	-27.5	-2.4	-95.5	-192	-27	-30	-397	-646	-869	-22	-1,538
8 Minimum price 60p	-14.2	-4.5	-4.7	-56.3	-79.7	-35.5	-3.3	-118.5	-244	-37	-39	-468	-789	-1,098	-30	-1,917
9 Minimum price 65p	-17.5	-5.8	-6.0	-64.1	-93.3	-43.9	-4.2	-141.4	-298	-48	-50	-533	-928	-1,335	-38	-2,301
10 Minimum price 70p	-20.9	-7.1	-7.3	-70.6	-105.9	-52.7	-5.1	-163.7	-352	-59	-61	-587	-1,058	-1,568	-47	-2,674
11 Total off-trade discount ban	-3.2	-1.6	-1.4	-12.9	-19.1	-8.3	-1.1	-28.5	-52	-13	-12	-108	-185	-239	-11	-434
12 Minimum price 25p + total off-t discount ban	-3.3	-1.4	-1.5	-14.5	-20.7	-8.6	-1.0	-30.3	-55	-12	-12	-121	-200	-254	-9	-463
13 Minimum price 30p + total off-t discount ban	-3.6	-1.4	-1.5	-16.7	-23.2	-9.2	-1.0	-33.4	-61	-11	-13	-139	-224	-280	-9	-513
14 Minimum price 35p + total off-t discount ban	-4.4	-1.4	-1.7	-20.7	-28.2	-11.1	-1.1	-40.3	-75	-12	-14	-172	-274	-345	-10	-628
15 Minimum price 40p + total off-t discount ban	-5.7	-1.7	-2.1	-26.8	-36.3	-14.5	-1.3	-52.1	-100	-14	-17	-223	-354	-456	-12	-822
16 Minimum price 45p + total off-t discount ban	-7.7	-2.3	-2.7	-34.5	-47.1	-19.2	-1.7	-68.0	-133	-19	-22	-287	-461	-605	-15	-1,082
17 Minimum price 50p + total off-t discount ban	-10.0	-3.1	-3.5	-43.3	-59.8	-25.0	-2.2	-87.0	-173	-25	-29	-360	-587	-784	-21	-1,391
18 Minimum price 55p + total off-t discount ban	-12.7	-4.0	-4.4	-52.0	-73.2	-31.8	-2.9	-108.0	-218	-34	-37	-433	-721	-985	-27	-1,733
19 Minimum price 60p + total off-t discount ban	-15.6	-5.1	-5.5	-59.5	-85.7	-39.2	-3.7	-128.6	-265	-43	-45	-495	-848	-1,194	-34	-2,077
20 Minimum price 65p + total off-t discount ban	-18.7	-6.3	-6.6	-66.6	-98.2	-47.1	-4.6	-149.8	-316	-53	-55	-554	-977	-1,416	-42	-2,435
21 Minimum price 70p + total off-t discount ban	-22.0	-7.6	-7.8	-72.6	-109.9	-55.6	-5.4	-171.0	-368	-63	-65	-603	-1,100	-1,641	-50	-2,791

Table A18.9: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade – financial value – overall population

SUMMARY - MODERATE	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.1	+.0	+.0	+.3	+.3	+.1	+.7	+1	+1	+	+	+2	+3	+1	+6
2 Minimum price 30p	-0.0	+.3	+.1	+.0	+.3	+.1	+.2	+.6	-1	+2	+	+	+2	-3	+2	+
3 Minimum price 35p	-0.2	+.4	+.0	+.0	+.2	-.4	+.2	-.0	-3	+3	+	+	+	-17	+2	-15
4 Minimum price 40p	-0.6	+.4	-.1	+.0	-.3	-1.4	+.2	-1.4	-8	+3	-1	+	-5	-41	+2	-45
5 Minimum price 45p	-1.2	+.3	-.2	+.0	-1.1	-2.9	+.2	-3.9	-15	+2	-2	+	-14	-77	+2	-89
6 Minimum price 50p	-1.9	+.2	-.5	+.0	-2.2	-4.7	+.1	-6.9	-23	+1	-4	+	-26	-120	+1	-145
7 Minimum price 55p	-2.8	-.0	-.8	+.0	-3.6	-7.0	-.1	-10.7	-34	-	-7	+	-40	-170	-1	-211
8 Minimum price 60p	-3.7	-.3	-1.2	+.0	-5.2	-9.4	-.3	-14.9	-44	-2	-10	+	-57	-221	-2	-280
9 Minimum price 65p	-4.7	-.6	-1.6	+.0	-7.0	-12.0	-.5	-19.5	-56	-5	-13	+	-74	-276	-5	-355
10 Minimum price 70p	-5.7	-1.0	-2.0	+.0	-8.7	-14.6	-.8	-24.1	-67	-8	-17	+	-92	-330	-7	-429
11 Total off-trade discount ban	-0.9	-.4	-.5	+.0	-1.8	-2.5	-.3	-4.5	-10	-3	-4	+	-18	-53	-3	-73
12 Minimum price 25p + total off-t discount ba	-0.9	-.3	-.4	+.0	-1.7	-2.5	-.2	-4.3	-11	-2	-4	+	-17	-55	-2	-73
13 Minimum price 30p + total off-t discount ba	-1.0	-.2	-.4	+.0	-1.6	-2.6	-.1	-4.3	-11	-1	-3	+	-16	-58	-1	-76
14 Minimum price 35p + total off-t discount ba	-1.2	-.1	-.4	+.0	-1.7	-3.0	-.1	-4.7	-14	-1	-4	+	-18	-70	-1	-88
15 Minimum price 40p + total off-t discount ba	-1.5	-.0	-.5	+.0	-2.0	-3.8	-.0	-5.9	-18	-	-4	+	-22	-90	-	-113
16 Minimum price 45p + total off-t discount ba	-2.0	-.0	-.6	+.0	-2.7	-5.0	-.1	-7.7	-23	-	-5	+	-29	-120	-1	-149
17 Minimum price 50p + total off-t discount ba	-2.6	-.1	-.8	+.0	-3.5	-6.5	-.1	-10.2	-30	-1	-7	+	-38	-155	-1	-195
18 Minimum price 55p + total off-t discount ba	-3.3	-.3	-1.1	+.0	-4.7	-8.4	-.2	-13.3	-39	-2	-9	+	-50	-198	-2	-250
19 Minimum price 60p + total off-t discount ba	-4.2	-.5	-1.4	+.0	-6.1	-10.6	-.4	-17.1	-49	-4	-12	+	-65	-245	-4	-314
20 Minimum price 65p + total off-t discount ba	-5.1	-.8	-1.8	+.0	-7.7	-13.0	-.6	-21.3	-60	-7	-15	+	-81	-296	-6	-383
21 Minimum price 70p + total off-t discount ba	-6.1	-1.1	-2.2	+.0	-9.4	-15.5	-.9	-25.7	-71	-9	-18	+	-98	-347	-8	-453

Table A18.10: Summary tables for sensitivity analysis - Nielsen-based preference for off-trade – financial value – moderate drinkers

SUMMARY - HAZARDOUS	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	+0.1	+.1	+.0	+.0	+.2	+.4	+.0	+.7	+1	+	+	+	+2	+6	+	+8
2 Minimum price 30p	+0.1	+.1	+.0	+.0	+.1	+.2	+.0	+.4	+	+	+	+	+1	+1	+	+2
3 Minimum price 35p	-0.3	-.0	-.1	+.0	-.4	-.7	-.0	-1.1	-5	-	-1	+	-6	-24	-	-30
4 Minimum price 40p	-0.9	-.3	-.3	+.0	-1.4	-2.2	-.2	-3.8	-16	-2	-2	+	-20	-72	-2	-94
5 Minimum price 45p	-1.8	-.6	-.6	+.0	-3.0	-4.6	-.4	-8.0	-32	-5	-5	+	-42	-141	-4	-187
6 Minimum price 50p	-3.0	-1.2	-1.0	+.0	-5.1	-7.5	-.8	-13.4	-52	-10	-8	+	-69	-227	-8	-304
7 Minimum price 55p	-4.3	-1.8	-1.4	+.0	-7.5	-10.8	-1.2	-19.5	-74	-15	-12	+	-100	-322	-11	-434
8 Minimum price 60p	-5.7	-2.3	-1.9	+.0	-9.9	-14.3	-1.6	-25.8	-97	-19	-16	+	-132	-421	-15	-569
9 Minimum price 65p	-7.1	-2.9	-2.5	+.0	-12.5	-17.9	-2.0	-32.4	-121	-24	-21	+	-166	-523	-19	-708
10 Minimum price 70p	-8.7	-3.6	-3.0	+.0	-15.3	-22.0	-2.5	-39.8	-147	-30	-25	+	-202	-628	-23	-853
11 Total off-trade discount ban	-1.4	-.8	-.7	+.0	-2.8	-3.7	-.6	-7.1	-23	-7	-5	+	-35	-105	-5	-145
12 Minimum price 25p + total off-t discount ba	-1.4	-.7	-.6	+.0	-2.8	-3.6	-.5	-7.0	-23	-6	-5	+	-35	-104	-5	-144
13 Minimum price 30p + total off-t discount ba	-1.4	-.7	-.7	+.0	-2.8	-3.8	-.5	-7.1	-24	-6	-5	+	-36	-109	-5	-149
14 Minimum price 35p + total off-t discount ba	-1.7	-.8	-.7	+.0	-3.2	-4.3	-.6	-8.1	-28	-7	-6	+	-41	-127	-5	-174
15 Minimum price 40p + total off-t discount ba	-2.2	-.9	-.9	+.0	-4.0	-5.6	-.7	-10.3	-37	-8	-7	+	-52	-167	-6	-225
16 Minimum price 45p + total off-t discount ba	-3.0	-1.2	-1.1	+.0	-5.3	-7.6	-.9	-13.8	-51	-10	-9	+	-70	-225	-8	-303
17 Minimum price 50p + total off-t discount ba	-3.9	-1.7	-1.4	+.0	-7.1	-10.0	-1.2	-18.2	-67	-14	-12	+	-93	-295	-11	-399
18 Minimum price 55p + total off-t discount ba	-5.1	-2.2	-1.8	+.0	-9.1	-12.9	-1.5	-23.5	-86	-18	-15	+	-120	-378	-14	-512
19 Minimum price 60p + total off-t discount ba	-6.3	-2.7	-2.3	+.0	-11.3	-16.0	-1.9	-29.2	-108	-22	-19	+	-149	-467	-17	-633
20 Minimum price 65p + total off-t discount ba	-7.6	-3.2	-2.8	+.0	-13.6	-19.4	-2.3	-35.3	-130	-27	-23	+	-180	-562	-21	-763
21 Minimum price 70p + total off-t discount ba	-9.2	-3.8	-3.3	+.0	-16.3	-23.4	-2.7	-42.4	-155	-32	-27	+	-214	-663	-25	-902

Table A18.11: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade – financial value – hazardous drinkers

SUMMARY - HARMFUL	Value of harm reduction in year 1 (£ millions)								Cumulative discounted value of harm reduction over 10 years (£m)							
Policy Scenario	Healthcare costs Year 1	Crime costs Year 1	Absence costs Year 1	Unemployment costs Year 1	Total direct costs Year 1	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1	Healthcare costs Years 1-10	Crime costs Years 1-10	Absence costs Years 1-10	Unemployment costs Years 1-10	Total direct costs Years 1-10	Health QALY value	Crime QALY value	Total value of harm reduction incl. QALYs Year 1-10
1 Minimum price 25p	-0.2	+.0	-.1	-1.9	-2.1	-.4	-.0	-2.5	-4	+	-	-16	-20	-15	-	-35
2 Minimum price 30p	-0.4	-.1	-.1	-4.8	-5.4	-.9	-.1	-6.4	-9	-1	-1	-40	-50	-37	-1	-88
3 Minimum price 35p	-0.8	-.2	-.3	-9.9	-11.2	-1.9	-.2	-13.3	-18	-2	-2	-83	-105	-78	-2	-184
4 Minimum price 40p	-1.4	-.5	-.5	-17.6	-19.9	-3.4	-.4	-23.7	-31	-4	-4	-146	-185	-138	-3	-327
5 Minimum price 45p	-2.2	-.8	-.7	-26.9	-30.5	-5.3	-.6	-36.4	-48	-6	-6	-224	-284	-210	-5	-499
6 Minimum price 50p	-3.0	-1.1	-1.0	-37.4	-42.5	-7.4	-.8	-50.7	-66	-9	-8	-311	-394	-292	-8	-694
7 Minimum price 55p	-3.9	-1.5	-1.3	-47.7	-54.5	-9.7	-1.1	-65.2	-85	-12	-11	-397	-505	-377	-10	-892
8 Minimum price 60p	-4.8	-1.8	-1.6	-56.3	-64.5	-11.8	-1.3	-77.6	-103	-15	-14	-468	-599	-455	-12	-1,067
9 Minimum price 65p	-5.6	-2.1	-1.9	-64.1	-73.7	-13.9	-1.5	-89.2	-120	-17	-16	-533	-687	-535	-14	-1,236
10 Minimum price 70p	-6.5	-2.4	-2.2	-70.6	-81.7	-16.0	-1.7	-99.4	-137	-20	-18	-587	-763	-609	-16	-1,388
11 Total off-trade discount ban	-0.8	-.4	-.3	-12.9	-14.5	-2.1	-.3	-16.9	-18	-3	-3	-108	-132	-81	-2	-215
12 Minimum price 25p + total off-t discount ba	-1.0	-.4	-.4	-14.5	-16.2	-2.4	-.3	-18.9	-21	-3	-3	-121	-148	-95	-2	-245
13 Minimum price 30p + total off-t discount ba	-1.2	-.4	-.4	-16.7	-18.8	-2.9	-.3	-22.0	-26	-3	-4	-139	-172	-113	-3	-288
14 Minimum price 35p + total off-t discount ba	-1.5	-.5	-.5	-20.7	-23.3	-3.8	-.4	-27.5	-33	-4	-5	-172	-215	-148	-4	-366
15 Minimum price 40p + total off-t discount ba	-2.1	-.7	-.7	-26.8	-30.3	-5.0	-.5	-35.9	-45	-6	-6	-223	-280	-199	-5	-483
16 Minimum price 45p + total off-t discount ba	-2.7	-1.0	-.9	-34.5	-39.1	-6.6	-.7	-46.5	-59	-8	-8	-287	-362	-261	-7	-629
17 Minimum price 50p + total off-t discount ba	-3.5	-1.2	-1.2	-43.3	-49.2	-8.5	-.9	-58.6	-75	-10	-10	-360	-455	-333	-9	-797
18 Minimum price 55p + total off-t discount ba	-4.3	-1.6	-1.5	-52.0	-59.4	-10.6	-1.2	-71.1	-92	-13	-12	-433	-551	-409	-11	-971
19 Minimum price 60p + total off-t discount ba	-5.1	-1.9	-1.8	-59.5	-68.2	-12.5	-1.4	-82.2	-109	-16	-15	-495	-634	-482	-13	-1,129
20 Minimum price 65p + total off-t discount ba	-5.9	-2.2	-2.0	-66.6	-76.7	-14.6	-1.6	-92.9	-126	-18	-17	-554	-714	-557	-15	-1,287
21 Minimum price 70p + total off-t discount ba	-6.7	-2.4	-2.3	-72.6	-84.0	-16.6	-1.8	-102.4	-142	-20	-19	-603	-785	-629	-17	-1,431

Table A18.12: Summary tables for sensitivity analysis – Nielsen-based preference for off-trade – financial value – harmful drinkers

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