The evidence provided by Professor Beath included the suggestion of a scenario whereby prices over recent years have been falling, encouraging increased drinking and causing dependence on alcohol. If such price falls were now reversed, the suggestion is that because people are now dependent, they would not reverse their drinking. We would like to respond to the issues raised in three ways:

1) **Were prices falling or rising during the period used to estimate elasticities?**

The econometrics model that informs both the original and updated epidemiological modelling is based on 5-years worth of EFS data from 2001-2005/6, adjusted to current prices using sales data from market research companies. It is probably helpful to show two graphs using data derived from the ONS publication Focus on Consumer Price Indices.

![Graph showing trends in on- and off-trade prices, inflation and income](image)

**Fig. 1. Trends in on- and off-trade prices, inflation and income**
Figure 1 shows that prices for beers, wines and spirits have increased over the same period, but off-trade prices have not kept up with inflation. At the same time, household disposable income rose. Figure 2 shows that affordability of alcohol, when considering alcohol prices in comparison to all-item inflation and disposable income, has increased throughout the 1990s and 2000s, and more for off-trade than on-trade alcohol. There is no evidence of a sudden price fall during the modelled period.

2) Elasticities and dependent drinkers

When the Sheffield report talks about heavy drinkers, these are all drinkers who drink beyond the recommended limits (>21/14 units per week for men/women), who make up just under 30% of the Scottish population (around 21% hazardous and 6% harmful drinkers). Heavy drinker elasticities were estimated for these groups. Dependent drinkers, mentioned during the meeting as possibly not responding to price as much because of their addiction, make up only 1% of the population (or 3% of the heavy drinkers). Because they are a relatively small population group, it has not been possible in our study to estimate their price responsiveness separately. Our thinking is that it is unlikely that a differential response to price would affect the results of the population-level Sheffield model substantially.

3) International evidence

It is worth reiterating that our own-price price elasticities, which are approximately -0.5 and thus indicate that alcohol is inelastic, are consistent with the international literature. Meta-analyses of over one hundred studies show similar aggregate elasticities to those estimated in our study.
It is not correct, as was mentioned in the evidence session, that other studies have already demonstrated decreased price sensitivity for dependent drinkers: The only other studies separately estimating elasticities for heavy drinkers are studies that have used heavy episodic drinking ("binge" drinking) as an indicator and are mostly based on university student samples (see the meta-analysis by Wagenaar et al 2009 in Addiction for a list of these studies).

Sensitivity analyses replacing our elasticity matrices with such alternative estimates (see report for NICE: http://guidance.nice.org.uk/PHG/Wave15/1) and another which assumes that heavy drinkers respond to price 1/3 less than moderate drinkers have shown that our model predictions are fairly robust to alternative assumptions around price elasticities.

We hope that this brief reply is helpful. Please do not hesitate to contact us should you have further queries regarding the original or the updated model.

Best regards

Dr Petra Meier
(on behalf of the Sheffield Alcohol Policy Research Team)