Prompting healthy food choices: what does economics tell us?

Anne Ludbrook

Rowett Institute of Nutrition and Health
Choice: the **rational** economic model

- Basic theory of demand (and supply) focuses on aggregate behaviour: how markets work
- Individuals behave *as if* they make choices that provide them with the most benefit; subject to constraints on income/wealth, time etc
- Assumes perfect *information* and well-defined preferences

- Change in price changes quantity – *moving along the demand curve*
- Change in price also changes income – *shifting the demand curve*
- Relative price change - *moving demand between products*
Choice: extending the rational economic model

- Basic model has been developed to consider household behaviour – production of outputs e.g. health
- Provides a more formal framework for considering how time affects choice (higher income increases the cost of time) and incorporating ‘home production’ of meals – requires skills, equipment, fuel as well as time
- Goods are purchased because of their attributes: price is one attribute traded off against others.
- Education and income can exert separate influence


Choices are also influenced by those around them – within households, peer groups or social networks
Choice: the behavioural model

- Behavioural economics combines economics and insights from psychology
- Decision complexity leads to short cuts / rules of thumb / habit forming (*automatic*)
- These decision rules lead to suboptimal decision-making (*bias*) – ‘nudging’ can lead to better outcomes but not always
- Perspective remains that of the *individual* maximising their well-being
- Mental accounting is an example of bias in decision making – subsidies on healthy food increase total calorie purchase
- Information can lead to *perverse outcomes* depending on direction of bias
- Conflicting objectives – short run / long run

There are about 10bn distinct products and services on sale in London alone, according to an educated guess by the complexity economist Eric Beinhocker. If each of them had a single undisputed price, it would take 317 years to memorise every one of those prices at a rate of one a second (Adapted from Tim Harford http://timharford.com/)
Market intervention – prices and/or food availability

- Demand responds to price – differs from incentive effect which may be temporary
- Price (tax/subsidy) intervention has most supporting evidence in terms of effectiveness
- Substitution effects may reduce impact of interventions targeting specific products
- Effect of general price increases on real income may increase demand for cheaper, less healthy products

DEFRA Family Food 2010

- Long term decline in price has been one driver of increased food consumption

- Regulation of availability has mainly been public sector focussed – e.g. vending machines / healthy snacks in schools – sometimes restricting choice
- ‘Nudging’ – making healthy choice more visible – without restricting choice has worked
- Reformulation can improve diet – again sometimes restricting choice
Measures to enable informed choice

- Social media campaigns and advertising: some evidence to support media campaigns (e.g. 5 a day) on self-reported measures. Capacci S, Mazzocchi M. Five-a-day, a price to pay: an evaluation of the UK program impact accounting for market forces. J Health Econ. 2011;30:89–98.
- Advertising bans mainly aimed at children and evaluated in terms of exposure

- Nutritional information has been shown to be effective for those who use the labels.

No, it's not one of your five a day: Scots in a jam over their fruit preserve (Independent 11 Aug 2013)

Ham Sandwich………..
290 calories

23 min
Conclusions

• There are no silver bullets – scattergun needed?
• Joining up the dots – consistent approaches act as reinforcement and whole diet perspective identifies potential substitution effects
• Behavioural approaches cannot always replace conventional solutions George Loewenstein, David A Asch, Joelle Y Friedman, Lori A Melichar, Kevin G Volpp Can behavioural economics make us healthier? *BMJ* 2012;344:e3482 doi: 10.1136/bmj.e3482

“Behavioural economics can confer great benefits if it is used appropriately to augment or strengthen policies grounded in conventional economics. But it cannot overcome large price distortions or perverse incentives for patients or providers, and it will be unfortunate if behavioural economics is treated as a substitute for more fundamental policies that deal with these problems.”

Professor Anne Ludbrook Health Economics Research Unit a.ludbrook@abdn.ac.uk