

The financial costs and benefits of alcohol

Christine Godfrey

Department of Health Sciences
& Centre for Health Economics

University of York

Structure

- Definition of terms
- Different types of study
 - What is the policy question?
 - What costs and benefits are included?
 - Some examples
 - How easy are they to replicate in different countries

Definition of terms

- Financial or economic
 - Costs can be just those costs falling on governments, these costs with any other impacts generally given in money terms or any impact that can be valued in money terms for example loss of life, fear of crime
- Private, external and social
 - Private borne by individuals/families
 - External borne by others
 - Social = private + external

Three types of study

- Cost of illness
 - What are the costs of alcohol at a specific time period compared to the situation where there was no alcohol?
- Externality based
 - Is there evidence that there are excess costs of alcohol given current policies?
- Economic evaluations
 - Is a policy good value for money compared to doing nothing or some alternative?

Features of cost of illness studies

- Aim to give a global figure for a specific year. Very useful for advocacy purposes.
- Often expressed as a percentage of GDP, compared to other drugs.
- Guide for conducting studies exists (Single et al, 2003) BUT a lot of differences between studies which make comparisons difficult

Contents of cost of illness studies

- Health care costs
- Workplace
- Crime
- Accidents particularly road traffic
- Loss of life
- Policy and research costs

What is not generally included and why

- Most individual costs and benefits
 - Assumed in a market model individual consumers take costs into account
- Alcohol revenue
- Other welfare/transfer payments
 - Both revenue and welfare benefits are transfers not resources
- Benefits of having an alcohol industry
 - Jobs and other "benefits" of an industry follow consumer spending patterns and not seen as independent - as consumers spend differently

Why include alcohol related deaths?

- Could argue main costs of loss of life to individual drinkers and their families and should be excluded
- Argument is that loss of life is a loss of productive worth in an economy - productivity loss. Valued by loss of life time earnings
- But this valuation gives lower value to women, disabled etc
- Could argue that loss of life is a "cost" to the whole society and value by "willingness to pay" - yields much higher values £1,144,890 compared to £147,187 for UK

Summary of some estimates

Study	Country	Year	Costs (€ billion)
Collins, 1991	Australia	1988	1.19
Collins, 1996	Australia	1992	1.52
Collins, 2002	Australia	1998	3.28
Rice, 1990	US	1995	72.4
Harwood 1997	US	1992	141.0
ONDCP 2001	US	1998	127.8
Maynard 1992	England	1985	3.73
Fenoglio 2003	France	1997	17.6

Example - England, £ billion, 2002. Rannia, 2003

Health care	1.7 (8.5%) €2.5
Workplace	3.9 (19.5%) €5.8
Lost output to premature death	2.5 (12.5%) €3.7
Crime	11.9 (59.5%) €17.7
Total	20.0 €30

How easy are these studies to complete

- Can be a substantial research exercise
- But for health, international reviews and WHO figures available
- But need routine data on deaths and health service use in disease categories for detailed own country estimate
- Crime and workplace costs need local data on risks and costs
- Figures can be used for other types of studies

Externality study

- Question is at a moment in time, with current alcohol policies, is there evidence of excess costs.
- Part of the study may be to compare any excess costs to the revenue yield

What should count?

	Addicted	Not addicted
Unaware of adverse consequences	Private and external costs + production resources	Private and external costs
Aware of adverse consequences	External costs + ?	External costs

Implications of different assumptions: 1. Consumers fully informed and rational

- There is a case for ignoring individual adverse consequences
- Economic models are generally based on families as the decision making unit and therefore family consequences may also be ignored
- Policies that lead to an involuntary change in alcohol consumption could be seen to have adverse consequences as individuals lose the benefits of consumption

Implications of different assumptions: not informed but not addicted

- Alcohol consumers are not aware of the consequences and therefore cannot act in their own best interests - there is a potential gain in overall welfare (reduction in social costs) if governments act to reduce consumption
- Models would therefore include a value for the costs to individuals and their families

Implications of assumptions: what about addiction

- At the extreme end if people cannot make rational decisions and get no benefit from their consumption, the resources being devoted to the production and distribution of the goods consumed in these circumstances could yield more social benefits if used for some other good
- However, some would argue that addiction does not preclude all benefit or all choice - the rational addiction model

Externality studies: some conclusions

- Framework not generally used in empirical studies BUT would be a useful
- Clear economic case for policy action
- Could use many of same components as cost of illness with addition of many private costs, e.g. Fenoglio et al (2003)

Economic evaluation

- What are all the costs and consequences (bads as well as benefits), private and external of two or more alternative scenarios/policies
- Most developed in health care fields, explicit cost effectiveness criteria in a number of countries e.g. UK, £30,000/€45,000 per Quality Adjusted Life Year
- Uses some of the same information as other studies but more explicit policy

What do we know

- WHO Choice project
- Brief interventions and specialist treatment - benefits greater than costs - save resources but not necessarily immediately
- Many interventions favoured by the industry e.g. school education costly and not effective
- Cost effectiveness not equivalent to lowest cost to the state

How to conduct

- Expensive well conducted research studies with experimental design, e.g. UKATT
- Add on studies to existing research, e.g. MATCH
- Modelling using systematic reviews of the data and local resource estimates, e.g. Slattery et al (2003)
- Broader based programme budgeting approach

Example of local policy simulation - Scottish Treatment Simulation (Slattery et al, 2003)

Treatment type	Net health care cost per death averted, £
Coping/social skills	-3073
BSCT	-1278
MET	-2089
Marital/family	-2388
Acamprosate	-1122
Naltrexone	2076
Unsupervised disulfiram	5536

Conclusions

- Governments often require economic information in a number of forms, the exact question being asked is important
- Estimating the financial burden of alcohol through cost of illness studies is a way of getting alcohol onto the agenda
- However, in getting specific actions implemented the question of value for money in the long term is sometimes sacrificed to the issue of current financial implications

- Economic information is limited but many interventions, even of limited effectiveness, save resources
- While well conducted research is needed, a lot can be done with limited data