

Fact sheet:

Societal determinants of alcohol consumption

December 2012

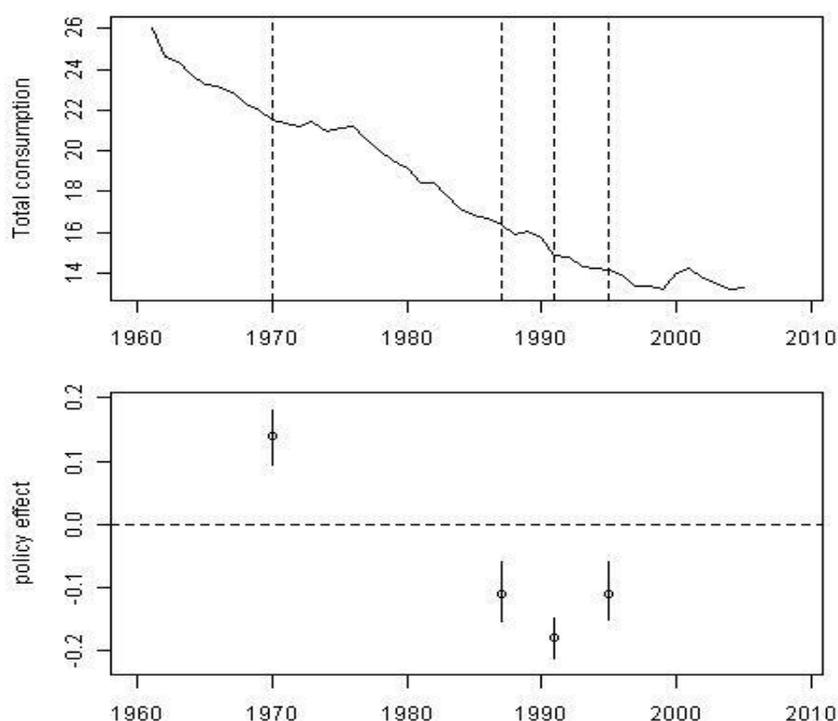


Planned policy measures

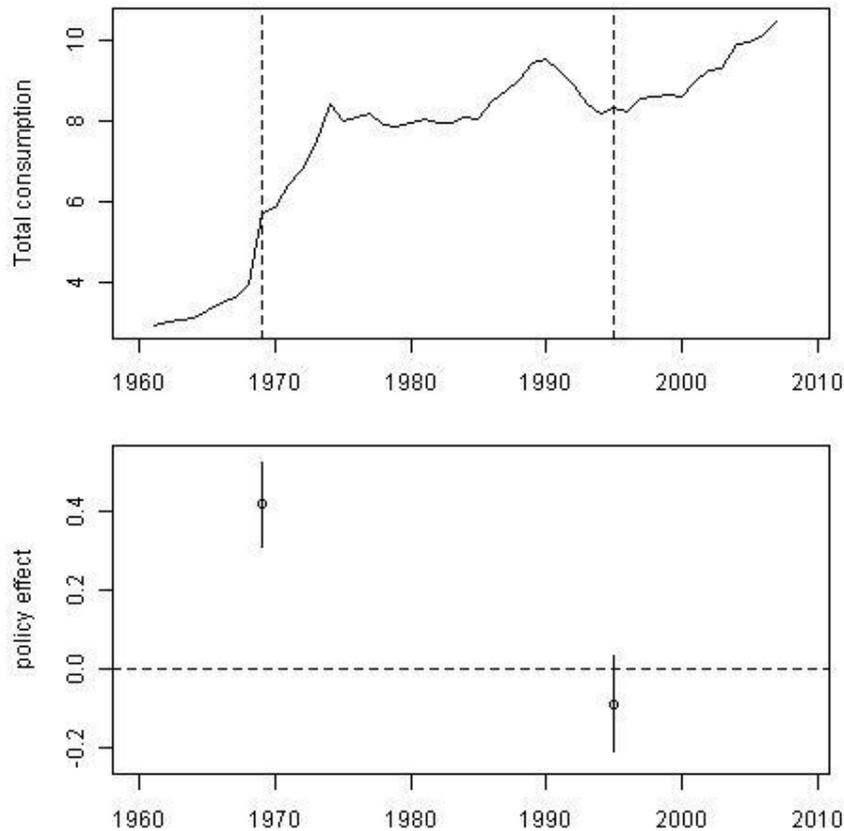
A twelve country study involving Austria, Finland, France, Hungary, Italy, Netherlands, Norway, Poland, Spain, Sweden, Switzerland, and the United Kingdom analysed the impact of a range of societal determinants on alcohol consumption and alcohol-related harm. These included planned policy measures, and socio-demographic changes that were occurring in the societies.

A whole range of alcohol policy measures were found to impact on alcohol consumption. France and Finland are taken as examples.

Taking France, for example the upper graph in the figure below plots per capita alcohol consumption over time, and the lower figure plots the impact of policy measures in reducing alcohol consumption, when controlling for levels of female employment (the largest unplanned determinant of alcohol consumption). Whereas the introduction of a legal level for blood alcohol concentration for driving of 0.8g/L was actually associated with a 14% increase in alcohol consumption, the 1987 total ban on advertising on TV and sports sponsorship was associated with a 11% reduction, the 1991 introduction of a minimum legal age of purchase of 16 years was associated with a 18% reduction, and the reduction of the legal blood alcohol level for driving to 0.5g/L with a 11% reduction. The adverting ban was also associated with reductions in deaths from liver cirrhosis and transport accidents.



Taking Finland as a second example, and this time controlling for rates of urbanization (the largest unplanned determinant of alcohol consumption), the 1969 act that allowed grocery stores to sell beer (previously, only available through government retail monopoly stores, was associated with a 42% increase in consumption. In contrast, the 1995 act which only led to marginal changes in availability was not associated with any changes in consumption.



Socio-demographic changes

A wide range of socio-economic variables were analysed, but two stood out in particular in being associated with levels of per capita alcohol consumption: the role of women in society as measured by levels of employment and mean maternal age for all child births, and urbanization. The tables below for France and Finland demonstrate that as the levels of female employment increased, alcohol consumption increased and as the mean maternal age for all child births went up, alcohol consumption went down. Finally, as levels of urbanization increased, consumption went up.

Regression coefficients describing the relationship between 15+ per capita recorded alcohol consumption (source: WHO 2009) and three selected unplanned indicators in France*, with 90% confidence intervals (CI 90)

France	coefficient	CI 90
Female employment	2,46	(2.03, 2.9)
Urbanization	0,21	(-0.65, 1.07)
Mother's age, all childbirths	-3,52	(-4.75, -2.29)

* results from 3 separate regression models for each unplanned factor, adjusted for time trend, income, proportion of males >65 of age, and prices of beer & wine

Regression coefficients describing the relationship between 15+ per capita recorded alcohol consumption (source: WHO 2009) and four selected unplanned indicators in Finland*, with 90% confidence intervals (CI 90)

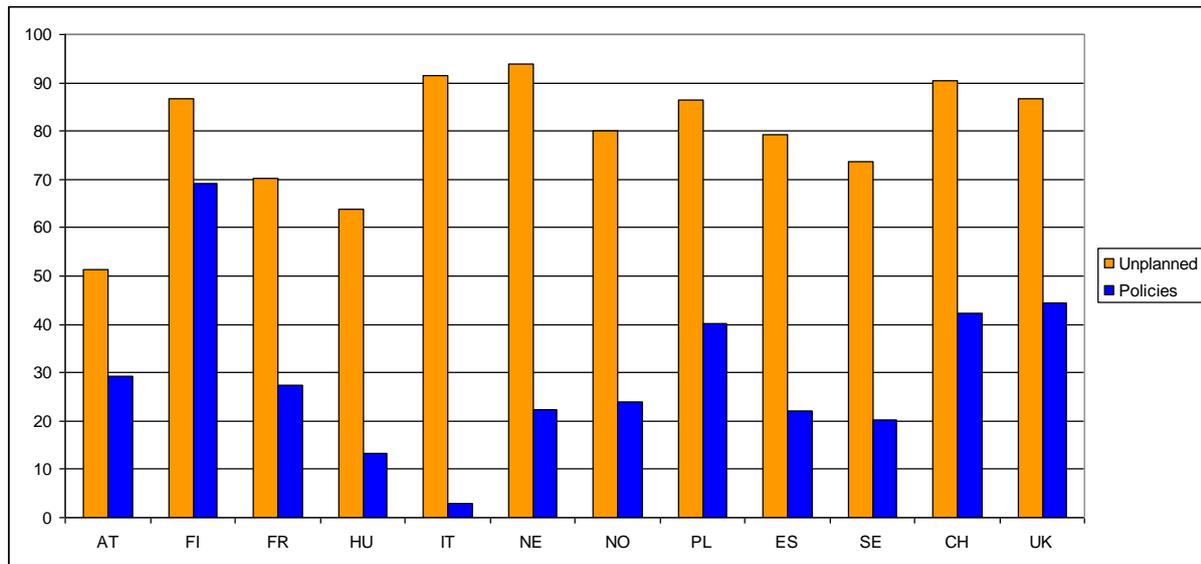
Finland	coefficient	CI90
Female employment	0,77	(0.4, 1.15)
Urbanization	1,23	(0.91, 1.55)
Mother's age at all childbirths	-0,65	(-3.25, 1.94)

* results from 4 separate regression models for each unplanned factor, adjusted for time trend, income, proportion of males >65 of age, and prices of beer & wine

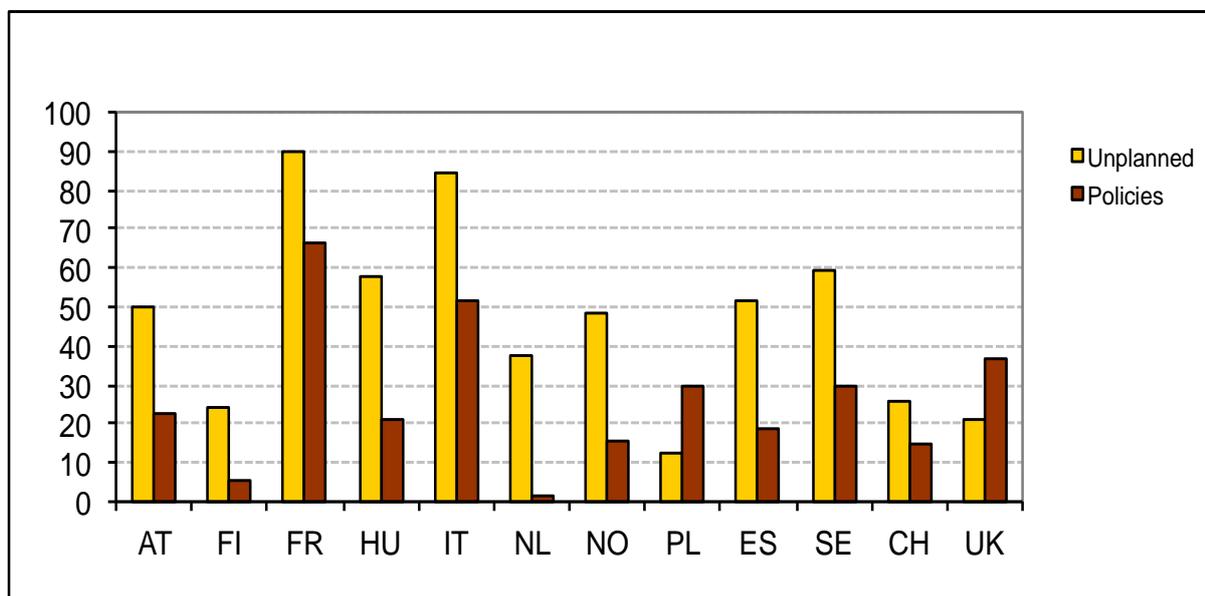
Relative importance of planned policy measures and socio-demographic changes

Looking across the twelve countries, the first figure below shows that the 'unplanned' socio-demographic changes had a greater impact on changes in alcohol consumption than the planned policy measures. The second figure finds a similar picture on changes in liver cirrhosis death rates, although here the difference between the impact of the socio-demographic changes and planned policy changes is less than for alcohol consumption.

Policy measures and unplanned variables: partial square correlation coefficients (x 100) with total alcohol consumption, 12 EU countries, 1960-2008



Policy measures and unplanned variables: partial square correlation coefficients (x 100) with chronic liver and cirrhosis deaths in 12 EU countries, 1970-2008



Take home messages

1. Alcohol policies impact on alcohol consumption and alcohol-related harm. In general, liberalization of policies is associated with increased consumption and harm, and the introduction of policies is associated with decreased consumption and harm.
2. Socio-demographic factors impact on alcohol consumption and alcohol-related harm. In general, levels of female employment and rates of urbanization are related to increased consumption and harm, and higher mean maternal age for all childbirths with decreased consumption and harm.
3. Unplanned factors seem to have a greater impact than policies. This applies to both consumption and harm, although more so to consumption than harm. Understanding the role of these factors needs to be taken into account when implementing existing evidence-based alcohol policies and designing new policies.

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