

# Denmark

## Explanation of the table

The table considers a number of policy options, singly and when combined, listed in Column 1. Column 2 estimates their impact in terms of the number of healthy years gained for every one million people in the population. Column 3 provides the annual cost of implementing the policy (in Euros for the year 2005), both for the population as a whole and per person. Column 4 gives the cost effectiveness ratio (CER), which is the total cost of implementing the policy or action (compared to doing nothing), divided by the number of healthy years gained, again relative to no intervention. Thus, if we consider a comprehensive advertising ban, this is estimated to gain 951 healthy years of life per one million of the population (5,153 years for the whole population of the country). Implementing and monitoring an advertising ban is estimated to cost the country €9 million, equivalent to €1.65 per person. Thus, the cost-effectiveness ratio is €1,740 per healthy year of life gained (€9,000,000 / 5,153).

Column 1		Column 2	Column 3		Column 4
Country	<b>Denmark</b>	Annual healthy life years gained per 1 million population	Annual cost (Euros, 2005)		Cost per healthy year of life gained (Euros, 2005)
Population	5,419,400		Total	Per person	
Gross national income per person (Euros, 2005)	38,183				
Euro exchange rate (2005)	0.13				
Current taxation		2,118	€ 6,020,762	€ 1.11	€ 524
Increased taxation (Current + 25%)		2,440	€ 9,354,585	€ 1.73	€ 708
Increased taxation (Current + 50%)		2,712	€ 9,354,585	€ 1.73	€ 637
Reduced access to retail outlets (50% coverage)		223	€ 6,198,046	€ 1.14	€ 5,123
Comprehensive advertising ban (80% coverage)		951	€ 8,966,384	€ 1.65	€ 1,740
Brief advice in primary care (30% coverage)		1,298	€ 36,314,816	€ 6.70	€ 5,162
Roadside breath-testing (RBT; 80% coverage)		94	€ 15,769,984	€ 2.91	€ 31,049
Current Scenario - combination of interventions		2,585	€ 29,491,897	€ 5.44	€ 2,106
Combination 1: Increased tax and RBT		2,749	€ 23,868,340	€ 4.40	€ 1,602
Combination 2: Increased tax and Advertising Ban		3,589	€ 17,404,921	€ 3.21	€ 895
Combination 3: Increased tax and Brief advice		3,930	€ 44,416,555	€ 8.20	€ 2,086
Combination 4: Increased tax + Ad Ban + Brief advice		4,812	€ 51,957,749	€ 9.59	€ 1,992
Combination 5: Increased tax + Brief Advice + Ad ban + Reduced access		4,925	€ 57,845,893	€ 10.67	€ 2,167
Combination 6: Increased tax + Brief Advice + Ad ban + Reduced access + RBT		5,014	€ 72,827,378	€ 13.44	€ 2,680

## What the table means

In preventing alcohol-related ill-health, available resources can be put to best use via enhanced taxation policies, since these have a large health impact, are relatively cheap to implement, and thus have the lowest cost per healthy year of life gained. A comprehensive advertising ban and reduced access to retail outlets are also projected to be highly cost-effective measures. Brief interventions can also have a big impact but are relatively costly to implement, so they are not as cost-effective as taxation and advertising ban measures. The least cost-effective measure is road-side breath testing, generating higher costs but less health gains - each healthy year of life gained costs nearly the average income per person (which is a benchmark for considering an intervention to be very cost-effective).

## Explanation of the figure

This figure plots the total costs and effects of each single and combined intervention for a 10-year period. The blue line plots the increasing cost of gaining an extra year of healthy life in the population as interventions become less cost-effective (as the gradient becomes steeper, so the cost per unit of effect increases). It shows the most efficient way of combining different strategies. Interventions to the left of this line are less effective and/or more costly than other, more efficient interventions. The most cost-effective single and then combined options are those that occur on the points of the blue line when it changes direction.



## What the figure means - Denmark

The first point where the blue line changes direction is increased taxation (current + 50% increase), and thus this is the most cost-effective policy option. The second point where the blue line changes direction is increased tax plus a comprehensive advertising ban, and thus this is the best combination of two policy options from a cost-effectiveness point of view. The third point where the blue line changes direction is increased tax plus an advertising plan, plus brief interventions for hazardous drinkers, and thus this is the next best combination of policy options. The final point is a combination of increased tax, an advertising ban, brief advice programmes, reduced access and random breath-testing campaigns, which represents the combined effect and cost of all studied interventions. It should be noted that the current intervention mix (■) does not appear on the expansion path, indicating room for improvement from a cost-effectiveness point of view and that more health gains could be achieved by re-allocating existing resources.