

Supplementary information

Table S1. Relative risks used in modelling [relationships between average alcohol consumption levels and chronic disease mortality in PRIME-Alcohol](#)

Outcome	Alcohol consumption level (g/day)	Relative Risk for mortality	
CHD (Ronksley et al., 2011)	0	1.00	
	<2.5	0.92 (0.80 to 1.06)	
	2.5 – 15	0.79 (0.73 to 0.86)	
	15 – 30	0.79 (0.71 to 0.88)	
	30 – 60	0.77 (0.72 to 0.83)	
	>60	0.75 (0.63 to 0.89)	
Stroke (Ronksley et al., 2011)	0	1.00	
	<2.5	1.00 (0.75 to 1.34)	
	2.5 – 15	0.86 (0.75 to 0.99)	
	15 – 30	1.15 (0.86 to 1.54)	
	30 – 60	1.10 (0.85 to 1.45)	
	>60	1.44 (0.99 to 2.10)	
Diabetes (Koppes et al., 2005)	0	1.00	
	<6	0.88 (0.80 to 0.95)	
	6-12	0.73 (0.62 to 0.86)	
	12-24	0.66 (0.59 to 0.75)	
	24-48	0.74 (0.63 to 0.88)	
	>48	0.93 (0.74 to 1.18)	
Hypertensive disease – men (Taylor et al., 2009)	per 10g	1.09 (1.07 to 1.12)	
Hypertensive disease – women (Taylor et al., 2009)	per 10g	1.10 (1.06 to 1.14)	
Epilepsy (Samokhvalov et al., 2010)	0	1.00	
	<12	1.00	
	12 – 48	1.17 (1.13 to 1.21)	
	48 – 72	1.81 (1.59 to 2.07)	
	72 -96	2.44 (2.00 to 2.97)	
	>96	3.27 (2.52 to 4.26)	
Liver cirrhosis – men (Rehm et al., 2010)	0	1.00	
	<12	1.0 (0.6 to 1.6)	
	12-24	1.6 (1.4 to 2.0)	
	24-36	2.8 (2.3 to 3.4)	
	36-48	5.6 (4.5 to 7.0)	
	48-60	7.0 (5.8 to 8.5)	
	>60	14 (11.7 to 16.7)	
Liver cirrhosis – women (Rehm et al., 2010)	0	1.00	
	<12	1.9 (1.1 to 3.1)	
	12-24	5.6 (4.5 to 6.9)	
	24-36	7.7 (6.3 to 9.5)	
	36-48	10.1 (7.5 to 13.5)	
	48-60	14.7 (11.0 to 19.6)	
	>60	22.7 (17.2 to 30.1)	
Cancer (WCRF / AICR, 2007)			
	Liver	Per 10g	1.10 (1.02 to 1.07)
	Mouth, larynx, pharynx	Per drink per week	1.24 (1.18 to 1.30)
	Oesophagus	Per drink per week	1.04 (1.03 to 1.05)
	Breast	10g	1.10 (1.06 to 1.14)
	Colorectum	10g	1.09 (1.03 to 1.14)

[chronic disease mortality in PRIME-Alcoholmption levels an cenario, however the standard eviation of d, and this is emphasised](#)

Table S2. Calculating impact on deaths from liver cirrhosis of increasing consumption of alcohol by 8g/d (one unit). Results shown for men aged 75-79 as example

Alcohol consumption (g/d)	Relative risk ¹	Baseline population ²	Baseline deaths ³	Mortality rate per 1,000 ⁴	Counterfactual population ⁵	Counterfactual deaths ⁶
<=1	1.0	229,532	24	0.11	229,532	24
1 - <=12	1.0	232,024	24	0.11	146,491	15
12 - <=24	1.6	126,930	21	0.17	130,440	22
24 - <=36	2.8	54,831	16	0.29	73,789	22
36 - <=48	5.6	27,303	16	0.59	43,678	26
48 - <=60	7.0	15,076	11	0.74	27,400	20
>60	14.0	28,404	42	1.47	68,950	101
		<i>TOTAL</i>	<i>154</i>		<i>TOTAL</i>	<i>230</i>

¹ Taken from meta-analysis of prospective cohort studies (Rehm et al., 2010); ² The total population of men aged 75-79 in England in 2006, following the distribution of alcohol consumption described by the General Household Survey 2006; ³ The total number of deaths from liver cirrhosis in men aged 75-79 in England in 2006, split so that mortality rates respect the relative risks; ⁴ Mortality rates, which follow the relative risks shown in the earlier column; ⁵ The population of men aged 75-79 under the counterfactual scenario, in which all drinkers drink one unit per day more; ⁶ The counterfactual number of deaths, calculated using the mortality rates and the counterfactual population.

Table S3. Population size and alcohol consumption [characteristics by sex and 5-year age group](#) in England, 2006

Sex	Age group, years	Population size ¹	Non-drinkers (<1g/day) ²	Daily intake (g/day) among drinkers, median ²
Male	15-19	1,719,800	30.9%	14.9
	20-24	1,716,200	15.3%	18.0
	25-29	1,636,900	16.5%	19.3
	30-34	1,714,100	16.2%	14.8
	35-39	1,933,300	16.5%	17.3
	40-44	1,939,700	16.5%	17.5
	45-49	1,717,700	15.6%	17.0
	50-54	1,511,900	18.6%	18.0
	55-59	1,608,900	17.4%	17.5
	60-64	1,320,600	18.3%	17.4
	65-69	1,074,300	20.6%	14.8
	70-74	906,300	23.4%	13.3
	75-79	714,100	31.6%	12.5
	80-84	476,000	32.7%	10.9
85+	323,700	43.7%	10.1	
Female	15-19	1,614,800	33.4%	10.4
	20-24	1,654,200	25.6%	10.9
	25-29	1,633,900	26.4%	9.9
	30-34	1,719,100	33.3%	10.9
	35-39	1,946,400	30.1%	10.0
	40-44	1,971,700	27.2%	9.8
	45-49	1,740,000	30.5%	11.0
	50-54	1,546,900	29.4%	11.3
	55-59	1,652,000	36.3%	10.6
	60-64	1,376,400	41.7%	9.9
	65-69	1,155,800	54.5%	9.4
	70-74	1,034,900	49.7%	8.2
	75-79	923,800	54.6%	7.8
	80-84	746,000	61.2%	7.2
85+	731,200	68.7%	7.9	

¹ Population estimates from Office for National Statistics; ² Estimates taken from the General Household Survey 2006(Office for National Statistics, 2008) (n = 14,306)

Table S4. Annual chronic disease deaths averted or delayed in counterfactual scenarios in which the percentage of non-drinkers in the population varies from 0% to 100%

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Total	4,160	2,727	1,259	-59	-441	-844	-1,269	-1,714	-2,178	-2,660	-3,160
Males	1,462	960	444	-42	-312	-602	-910	-1,236	-1,578	-1,936	-2,309
Females	2,698	1,767	815	-18	-129	-243	-359	-479	-600	-725	-851
Males under 75 years	-201	-124	-54	23	157	276	379	468	544	607	659
Females under 75 years	-472	-300	-134	22	159	293	426	557	685	812	937
CVD	7,705	4,994	2,280	-228	-1,649	-3,071	-4,494	-5,918	-7,342	-8,767	-10,193
Cancer	-2,771	-1,765	-792	104	738	1,351	1,943	2,516	3,071	3,608	4,129
Liver disease	-1,265	-819	-374	77	558	1,039	1,521	2,002	2,483	2,964	3,445

A positive number indicates lives saved compared to 2006 mortality, a negative number denotes a net increase in mortality compared to 2006. Assumes that the distribution of consumption in drinkers remains constant

References for supplementary information:

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