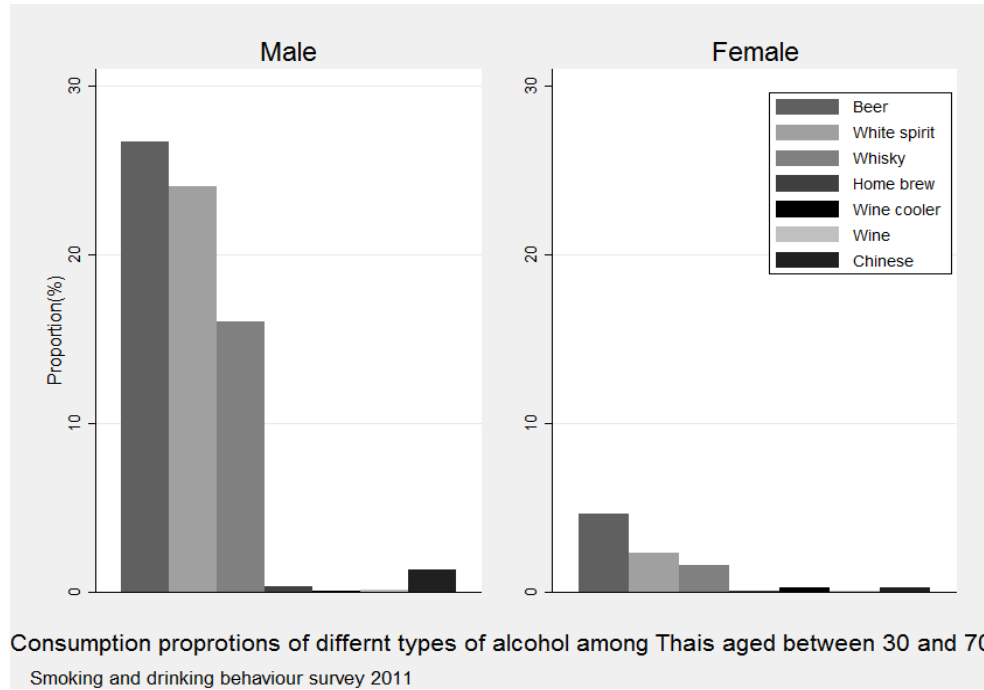


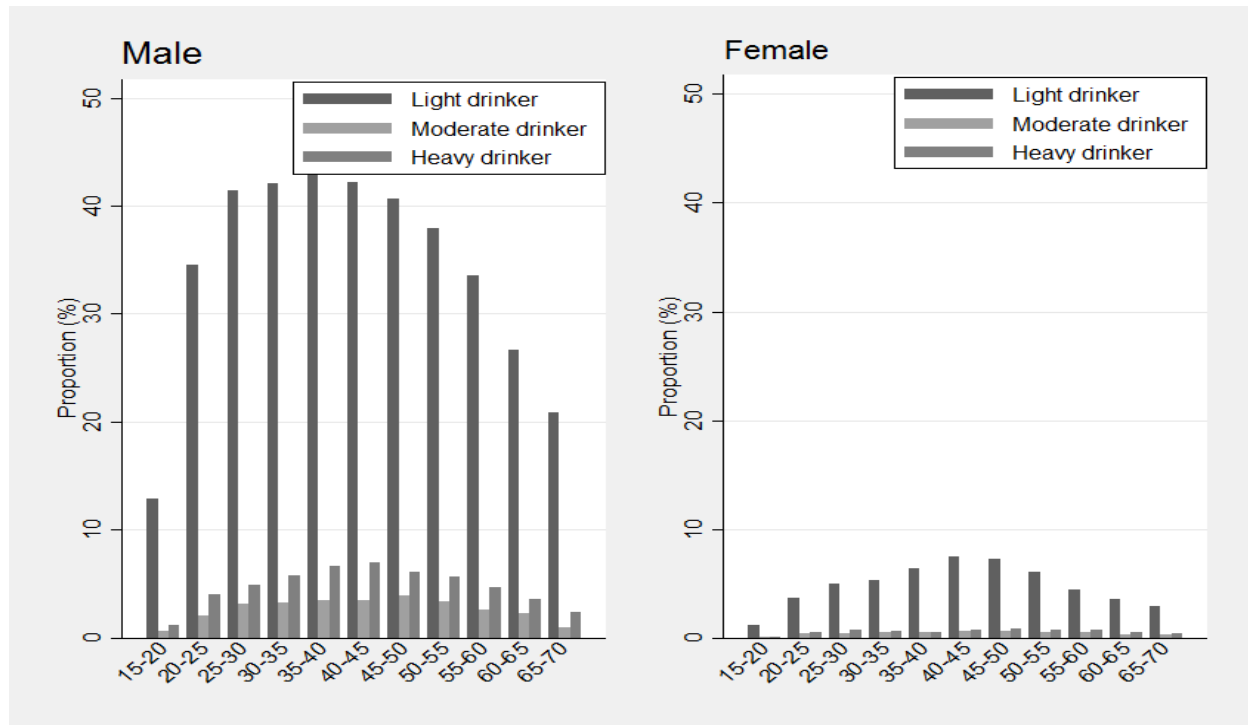
Supplementary Materials

Figure S1. Proportions of drinkers consuming 7 types of alcoholic beverages by sex, estimated from the Tobacco and Alcohol Consumption Behavior Survey 2011



Note: The proportions are weighted estimates based on a total sample of 128,847 TAC respondents.

Figure S2. Percentages of drinking categories in Thai population by sex and age groups, estimated from the Tobacco and Alcohol Drinking Behavior survey 2011



Note: Definition of risk drinking level (WHO, 2000): high/heavy is >60 g/day in men or >40 g/day in women, moderate is >40 to 60 g/day in men or >20 to 40 g/day in women, and low/light is 1 to 40 g/day in men or 1 to 20 g/day in women. The proportions are weighted estimates based on a total sample of 128,847 TAC respondents.

Table S1. Categories of non-communication diseases (NCDs), ICD codes, Relative Risks (RR) by NCDs and groups of drinkers.

NCDs categories	Diseases (ICD code)	Non-drinker	RRs by Drinker group			Sources
			High	Moderate	Low-	
Cancers	Mouth oropharynx (C0-C10)	1	5.13	1.83	1.13	(Bagnardi <i>et al.</i> , 2015)
	Oesophageal (C15)	1	3.59	1.93	1.39	(Corrao <i>et al.</i> , 2004)
	Colon and rectum (C18-C21)	1	1.44	1.17	1.00	(Bagnardi <i>et al.</i> , 2015)
	Liver (C22)	1	2.07	1.08	1.00	(Bagnardi <i>et al.</i> , 2015)
	Pancreas (C25)	1	1.19	1.03	1.00	(Bagnardi <i>et al.</i> , 2015)
	Breast (C50)	1	F=1.61	F=1.23	F=1.04	(Bagnardi <i>et al.</i> , 2015)
Cardiovascular diseases	Ischaemic heart disease (I20-I25)	1	M=1.04; F=1.23	M=1.04; F=1.41	M=1.04; F=1.03	(Roerecke & Rehm, 2014)*
	Ischaemic stroke (I63-I67)	1	1.04	1.04	1.04	(Patra <i>et al.</i> , 2010)*
	Haemorrhagic stroke (I60-I62, I69)	1	M=1.11; F=1.17	M=1.11; F=1.17	M=1.11; F=1.17	(Patra <i>et al.</i> , 2010)*
	Hypertensive heart disease (I11, I13)	1	4.15	2.04	1.43	(Corrao <i>et al.</i> , 2004)
	Atrial fibrillation and flutter (I48)	1	M=1.53; F=2.18	M=1.25; F=1.17	M=1.02; F=1.00	(Samokhvalov <i>et al.</i> , 2010)
Diabetes	Diabetes (E10-E14)	1	M=1.01; F=1.02	M=1.00; F=1.00	M=1.00; F=1.00	(Baliunas <i>et al.</i> , 2009)

Note: M=male, F=female, * There are RRs for all drinkers but no stratified RRs by drinker group.

Although some studies reported protective effects of moderating drinking toward preventing cardiovascular diseases and diabetes (Di Castelnuovo *et al.*, 2006; Ronksley *et al.*, 2011), a recent study stated that the existing evidence fails to approve a safe level of alcohol drinking without any negative impacts (GBD 2016 Alcohol Collaborators, 2018). Considering that this study only focuses on the detrimental effects of alcohol use, all the positive effects ($RR < 1$) from the literature reviews were replaced with no effects ($RR = 1$).

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