



Public Health  
England

Protecting and improving the nation's health

# **Alcohol-attributable fractions for England: An update**

## Appendix 1: Alcohol consumption relative risk search strategy

# About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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## Search strategy for relative risks

### Search terms

Search	Concept 1	Concept 2	Concept 3	Concept 4
1	Alcohol Spirits Beer Wine	Tuberculosis	“Relative risk” “Odds ratios” “Hazard ratios” RR	
2	Alcohol Spirits Beer Wine	Lip “Oral cavity” Pharynx Oesophagus Colon Rectum Liver “Intrahepatic bile ducts” Larynx Breast	“Relative risk” “Odds ratios” “Hazard ratios” RR	Cancer Neoplasm
3	Alcohol Spirits Beer Wine	“Diabetes mellitus (type II)” “Type II Diabetes” “Type 2 Diabetes”	“Relative risk” “Odds ratios” “Hazard ratios” RR	

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Search	Concept 1	Concept 2	Concept 3	Concept 4
4	Alcohol Spirits Beer Wine	"Epilepsy and Status epilepticus"	"Relative risk" "Odds ratios" "Hazard ratios" RR	
5	Alcohol Spirits Beer Wine	"Hypertensive diseases" "Ischaemic heart disease" "Myocardial infarction" "Cardiac arrhythmias" "Heart failure" "Haemorrhagic stroke" "Ischaemic stroke" "Oesophageal varices"	"Relative risk" "Odds ratios" "Hazard ratios" RR	
6	Alcohol Spirits Beer Wine	Pneumonia	"Relative risk" "Odds ratios" "Hazard ratios" RR	
7	Alcohol Spirits Beer Wine	"Gastro-oesophageal laceration-haemorrhage syndrome" "Cholelithiasis" "gall stones" "Acute and chronic pancreatitis"	"Relative risk" "Odds ratios" "Hazard ratios" RR	
8	Alcohol	Psoriasis	"Relative risk"	

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Search	Concept 1	Concept 2	Concept 3	Concept 4
	Spirits Beer Wine		“Odds ratios” “Hazard ratios” RR	
9	Alcohol Spirits Beer Wine	“Spontaneous abortion” “Low birth weight”	“Relative risk” “Odds ratios” “Hazard ratios” RR	
10	Alcohol Spirits Beer Wine	“Road/pedestrian traffic accidents” Poisoning “Fall injuries” “Fire injuries” Drowning “Other unintentional injuries” “Water transport accidents” “Air/space transport accidents” “Work/machine injuries” “Firearm injuries” “Inhalation of gastric contents/Inhalation and ingestion of food causing obstruction of the respiratory tract” “Accidental excessive cold”	“Relative risk” “Odds ratios” “Hazard ratios” RR	

Search	Concept 1	Concept 2	Concept 3	Concept 4
		“Intentional self-harm” “Event of undetermined intent” Assault		

## Limits

The scope will cover just Europe, Australia, New Zealand, Canada and the United States, where population demographics are comparable to the UK<sup>1</sup>.

### Inclusion criteria:

- publication dates: 01/01/2013 to 31/12/2018
- languages – English only (Y/N): yes
- humans only (Y/N): yes

## Databases

Database	Required? (tick)
Pubmed <sup>2</sup>	✓

<sup>1</sup> Country exclusions required should be done at the sifting stage

<sup>2</sup> Medline and PubMed are technically the same. PubMed is broader

## Results by search string

Searches were run by individual disease type. First, they were run by all article types, then filtered by 'meta-analysis' and 'review'. Each set of results has been exported into individual Endnote databases (available on request).

### Tuberculosis

```
(((((wine[Title/Abstract] OR beer[Title/Abstract]) OR alcohol[Title/Abstract]) OR spirits[Title/Abstract]) OR "wine"[MeSH Terms] OR "beer"[MeSH Terms]) OR "alcohol drinking"[MeSH Terms]) AND tuberculosis[Title/Abstract]) AND (((("odds ratio"[Title/Abstract] OR "risk"[MeSH Terms]) OR "relative risk"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND (("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang])
```

**Results exported: 110**

```
(((((wine[Title/Abstract] OR beer[Title/Abstract]) OR alcohol[Title/Abstract]) OR spirits[Title/Abstract]) OR "wine"[MeSH Terms] OR "beer"[MeSH Terms]) OR "alcohol drinking"[MeSH Terms]) AND tuberculosis[Title/Abstract]) AND (((("odds ratio"[Title/Abstract] OR "risk"[MeSH Terms]) OR "relative risk"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND ((Review[ptyp] OR Meta-Analysis[ptyp]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang])
```

**Results exported: 5**

### Cancers

```
(((((wine[Title/Abstract] OR beer[Title/Abstract]) OR alcohol[Title/Abstract]) OR spirits[Title/Abstract]) OR "wine"[MeSH Terms] OR "beer"[MeSH Terms]) OR "alcohol drinking"[MeSH Terms]) AND (((((((breast[Title/Abstract] OR larynx[Title/Abstract]) OR "intrahepatic bile ducts"[Title/Abstract]) OR liver[Title/Abstract]) OR rectum[Title/Abstract]) OR colon[Title/Abstract]) OR colon[Title/Abstract]) OR oesophagus[Title/Abstract]) OR pharynx[Title/Abstract]) OR "oral cavity"[Title/Abstract]) OR lip[Title/Abstract]) AND (cancer[Title/Abstract] OR neoplasm[Title/Abstract])) AND (((("odds ratio"[Title/Abstract] OR "risk"[MeSH Terms]) OR "relative risk"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND
```



((("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang])

**Results exported: 644**

(((((wine[Title/Abstract] OR beer[Title/Abstract]) OR alcohol[Title/Abstract]) OR spirits[Title/Abstract]) OR "wine"[MeSH Terms]) OR "beer"[MeSH Terms]) OR "alcohol drinking"[MeSH Terms] AND (((((((breast[Title/Abstract] OR larynx[Title/Abstract]) OR "intrahepatic bile ducts"[Title/Abstract]) OR liver[Title/Abstract]) OR rectum[Title/Abstract]) OR colon[Title/Abstract]) OR colon[Title/Abstract]) OR oesophagus[Title/Abstract]) OR pharynx[Title/Abstract]) OR "oral cavity"[Title/Abstract]) OR lip[Title/Abstract]) AND (cancer[Title/Abstract] OR neoplasm[Title/Abstract])) AND (((("odds ratio"[Title/Abstract] OR "risk"[MeSH Terms]) OR "relative risk"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND ((("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang]) AND (Meta-Analysis[ptyp] OR Review[ptyp]))

**Results exported: 142**

## Type 2 Diabetes

(((((wine[Title/Abstract] OR beer[Title/Abstract]) OR alcohol[Title/Abstract]) OR spirits[Title/Abstract]) OR "wine"[MeSH Terms]) OR "beer"[MeSH Terms]) OR "alcohol drinking"[MeSH Terms] AND ("type 2 diabetes"[Title/Abstract] OR "diabetes mellitus, type 2"[MeSH Terms])) AND (((("odds ratio"[Title/Abstract] OR "risk"[MeSH Terms]) OR "relative risk"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND ((("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang]))

**Results exported: 363**

(((((wine[Title/Abstract] OR beer[Title/Abstract]) OR alcohol[Title/Abstract]) OR spirits[Title/Abstract]) OR "wine"[MeSH Terms]) OR "beer"[MeSH Terms]) OR "alcohol drinking"[MeSH Terms] AND ("type 2 diabetes"[Title/Abstract] OR "diabetes mellitus, type 2"[MeSH Terms])) AND (((("odds ratio"[Title/Abstract] OR "risk"[MeSH Terms]) OR "relative risk"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND ((Review[ptyp] OR Meta-Analysis[ptyp]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang]))

**Results exported: 38**

## Epilepsy

(((((wine[Title/Abstract] OR beer[Title/Abstract]) OR alcohol[Title/Abstract]) OR spirits[Title/Abstract]) OR "wine"[MeSH Terms] OR "beer"[MeSH Terms]) OR "alcohol drinking"[MeSH Terms]) AND (((("status epilepticus"[Title/Abstract] OR "epilepsy"[MeSH Terms]) OR "status epilepticus"[MeSH Terms]) OR epilepsy[Title/Abstract])) AND (((("odds ratio"[Title/Abstract] OR "risk"[MeSH Terms]) OR "relative risk"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang])

### Results exported: 38

(((((wine[Title/Abstract] OR beer[Title/Abstract]) OR alcohol[Title/Abstract]) OR spirits[Title/Abstract]) OR "wine"[MeSH Terms] OR "beer"[MeSH Terms]) OR "alcohol drinking"[MeSH Terms]) AND (((("status epilepticus"[Title/Abstract] OR "epilepsy"[MeSH Terms]) OR "status epilepticus"[MeSH Terms]) OR epilepsy[Title/Abstract])) AND (((("odds ratio"[Title/Abstract] OR "risk"[MeSH Terms]) OR "relative risk"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND ((Review[ptyp] OR Meta-Analysis[ptyp]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang])

### Results exported: 8

## Hypertension, stroke etc

(((((wine[Title/Abstract] OR "wine"[MeSH Terms]) OR beer[Title/Abstract]) OR "beer"[MeSH Terms]) OR spirits[Title/Abstract]) OR alcohol[Title/Abstract]) OR "alcohol drinking"[MeSH Terms]) AND (((((((("oesophageal varices"[Title/Abstract] OR "esophageal and gastric varices"[MeSH Terms]) OR ischaemic stroke[Title/Abstract]) OR "haemorrhagic stroke"[Title/Abstract]) OR "heart failure"[Title/Abstract]) OR "cardiac arrhythmias"[Title/Abstract]) OR "myocardial infarction"[Title/Abstract]) OR "ischaemic heart disease"[Title/Abstract]) OR ("myocardial ischemia"[MeSH Terms] OR "coronary artery disease"[MeSH Terms])) OR "hypertensive disease"[Title/Abstract]) OR "hypertension"[MeSH Terms])) AND (((("hazards ratio"[Title/Abstract] OR "odds ratio"[Title/Abstract]) OR "relative risk"[Title/Abstract]) OR "risk"[MeSH Terms]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang])

**Results exported: 1048**(((((wine[Title/Abstract] OR "wine"[MeSH Terms]) OR beer[Title/Abstract]) OR "beer"[MeSH Terms]) OR spirits[Title/Abstract]) OR alcohol[Title/Abstract]) OR "alcohol drinking"[MeSH Terms]) AND (((((((("oesophageal varices"[Title/Abstract] OR "esophageal and gastric varices"[MeSH Terms]) OR ischaemic stroke[Title/Abstract]) OR "haemorrhagic stroke"[Title/Abstract]) OR "heart failure"[Title/Abstract]) OR "cardiac arrhythmias"[Title/Abstract]) OR "myocardial infarction"[Title/Abstract]) OR "ischaemic heart disease"[Title/Abstract]) OR ("myocardial ischemia"[MeSH Terms] OR "coronary artery disease"[MeSH Terms])) OR "hypertensive disease"[Title/Abstract]) OR "hypertension"[MeSH Terms])) AND (((("hazards ratio"[Title/Abstract] OR "odds ratio"[Title/Abstract]) OR "relative risk"[Title/Abstract]) OR "risk"[MeSH Terms]) AND ((Review[ptyp] OR Meta-Analysis[ptyp]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang]))

**Results exported: 90**

### Pneumonia

(((((wine[Title/Abstract] OR "wine"[MeSH Terms]) OR beer[Title/Abstract]) OR "beer"[MeSH Terms]) OR spirits[Title/Abstract]) OR alcohol[Title/Abstract]) OR "alcohol drinking"[MeSH Terms]) AND (((("hazards ratio"[Title/Abstract] OR "odds ratio"[Title/Abstract]) OR "relative risk"[Title/Abstract]) OR "risk"[MeSH Terms])) AND ("pneumonia"[MeSH Terms] OR pneumonia[Title/Abstract]) AND ((("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang]))

**Results exported: 69**

(((((wine[Title/Abstract] OR "wine"[MeSH Terms]) OR beer[Title/Abstract]) OR "beer"[MeSH Terms]) OR spirits[Title/Abstract]) OR alcohol[Title/Abstract]) OR "alcohol drinking"[MeSH Terms]) AND (((("hazards ratio"[Title/Abstract] OR "odds ratio"[Title/Abstract]) OR "relative risk"[Title/Abstract]) OR "risk"[MeSH Terms])) AND ("pneumonia"[MeSH Terms] OR pneumonia[Title/Abstract]) AND ((Review[ptyp] OR Meta-Analysis[ptyp]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang]))

**Results exported: 7**

## Psoriasis

(((((wine[Title/Abstract] OR "wine"[MeSH Terms]) OR beer[Title/Abstract]) OR "beer"[MeSH Terms]) OR spirits[Title/Abstract]) OR alcohol[Title/Abstract]) OR "alcohol drinking"[MeSH Terms]) AND (psoriasis[Title/Abstract] OR "psoriasis"[MeSH Terms])) AND (((("hazards ratio"[Title/Abstract] OR "odds ratio"[Title/Abstract]) OR "relative risk"[Title/Abstract]) OR "risk"[MeSH Terms]) AND (("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang]))

### Results exported: 63

(((((wine[Title/Abstract] OR "wine"[MeSH Terms]) OR beer[Title/Abstract]) OR "beer"[MeSH Terms]) OR spirits[Title/Abstract]) OR alcohol[Title/Abstract]) OR "alcohol drinking"[MeSH Terms]) AND (psoriasis[Title/Abstract] OR "psoriasis"[MeSH Terms])) AND (((("hazards ratio"[Title/Abstract] OR "odds ratio"[Title/Abstract]) OR "relative risk"[Title/Abstract]) OR "risk"[MeSH Terms]) AND ((Review[ptyp] OR Meta-Analysis[ptyp]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang]))

### Results exported: 11

## Gastro-oesophageal laceration-haemorrhage syndrome, cholelithiasis etc

(((((("alcohol drinking"[MeSH Terms] OR wine[Title/Abstract]) OR beer[Title/Abstract]) OR spirits[Title/Abstract]) OR alcohol[Title/Abstract]) AND ((((((gastro-oesophageal[Title/Abstract] AND haemorrhage[Title/Abstract]) OR "mallory-weiss syndrome"[Title/Abstract]) OR cholelithiasis[Title/Abstract]) OR "gall stones"[Title/Abstract]) OR "acute pancreatitis"[Title/Abstract]) OR "chronic pancreatitis"[Title/Abstract])) AND (((("relative risk"[Title/Abstract] OR "risk"[MeSH Terms]) OR "odds ratio"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang]))

### Results exported: 143

(((((("alcohol drinking"[MeSH Terms] OR wine[Title/Abstract]) OR beer[Title/Abstract]) OR spirits[Title/Abstract]) OR alcohol[Title/Abstract]) AND ((((((gastro-oesophageal[Title/Abstract] AND haemorrhage[Title/Abstract]) OR "mallory-weiss syndrome"[Title/Abstract]) OR cholelithiasis[Title/Abstract]) OR "gall

stones"[Title/Abstract]) OR "acute pancreatitis"[Title/Abstract]) OR "chronic pancreatitis"[Title/Abstract])) AND (((("relative risk"[Title/Abstract] OR "risk"[MeSH Terms]) OR "odds ratio"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND ((Review[ptyp] OR Meta-Analysis[ptyp]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang])

**Results exported: 35**

### Low birth weight

("spontaneous abortion"[Title/Abstract] OR "low birth weight"[Title/Abstract])) AND (((("relative risk"[Title/Abstract] OR "risk"[MeSH Terms]) OR "odds ratio"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang])

**Results exported: 48**

(((((("alcohol drinking"[MeSH Terms] OR wine[Title/Abstract]) OR beer[Title/Abstract]) OR spirits[Title/Abstract]) OR alcohol[Title/Abstract]) AND ("spontaneous abortion"[Title/Abstract] OR "low birth weight"[Title/Abstract])) AND (((("relative risk"[Title/Abstract] OR "risk"[MeSH Terms]) OR "odds ratio"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang])

**Results exported: 5**

### Accident/Injuries

(((((("alcohol drinking"[MeSH Terms] OR wine[Title/Abstract]) OR beer[Title/Abstract]) OR spirits[Title/Abstract]) OR alcohol[Title/Abstract]) AND (((((((((((((((assault[Title/Abstract] OR "intentional self-harm"[Title/Abstract]) OR "inhalation of gastric contents"[Title/Abstract]) OR machine injuries[Title/Abstract]) OR "work injuries"[Title/Abstract]) OR "accidents, aviation"[MeSH Terms]) OR "maritime accidents"[Title/Abstract]) OR "aviation accidents"[Title/Abstract]) OR "other unintentional injuries"[Title/Abstract]) OR drowning[Title/Abstract]) OR "fire injuries"[Title/Abstract]) OR "fall injuries"[Title/Abstract]) OR poisoning[Title/Abstract]) OR "pedestrian traffic accidents"[Title/Abstract]) OR "road traffic accidents"[Title/Abstract])) AND (((("relative risk"[Title/Abstract] OR "risk"[MeSH Terms]) OR "odds ratio"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND

("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang])

**Results exported: 166**

(((((("alcohol drinking"[MeSH Terms] OR wine[Title/Abstract]) OR beer[Title/Abstract]) OR spirits[Title/Abstract]) OR alcohol[Title/Abstract]) AND (((((((((((((((assault[Title/Abstract] OR "intentional self-harm"[Title/Abstract]) OR "inhalation of gastric contents"[Title/Abstract]) OR machine injuries[Title/Abstract]) OR "work injuries"[Title/Abstract]) OR "accidents, aviation"[MeSH Terms]) OR "maritime accidents"[Title/Abstract]) OR "aviation accidents"[Title/Abstract]) OR "other unintentional injuries"[Title/Abstract]) OR drowning[Title/Abstract]) OR "fire injuries"[Title/Abstract]) OR "fall injuries"[Title/Abstract]) OR poisoning[Title/Abstract]) OR "pedestrian traffic accidents"[Title/Abstract]) OR "road traffic accidents"[Title/Abstract])) AND (((("relative risk"[Title/Abstract] OR "risk"[MeSH Terms]) OR "odds ratio"[Title/Abstract]) OR "hazards ratio"[Title/Abstract]) AND ((Review[ptyp] OR Meta-Analysis[ptyp]) AND ("2013/01/01"[PDAT] : "2018/12/31"[PDAT]) AND "humans"[MeSH Terms] AND English[lang]))

**Results exported: 13**