Tornata Accademia Vite e Vino, 7 dicembre 2013, Biblioteca la Vigna – Vicenza
*A ricordo e onore di **Francesco Orlandi**, Consigliere e Coordinatore del Gruppo di Lavoro Umberto Pallotta "Vino e Salute"*

Vino e salute: Studi di popolazione e su gruppi selezionati di consumatori

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Pozzilli (IS)

COME E ‘ COMINCIATA LA RICERCA MODERNA SUI RAPPORTI TRA VINO E SALUTE?

THE "FRENCH PARADOX"

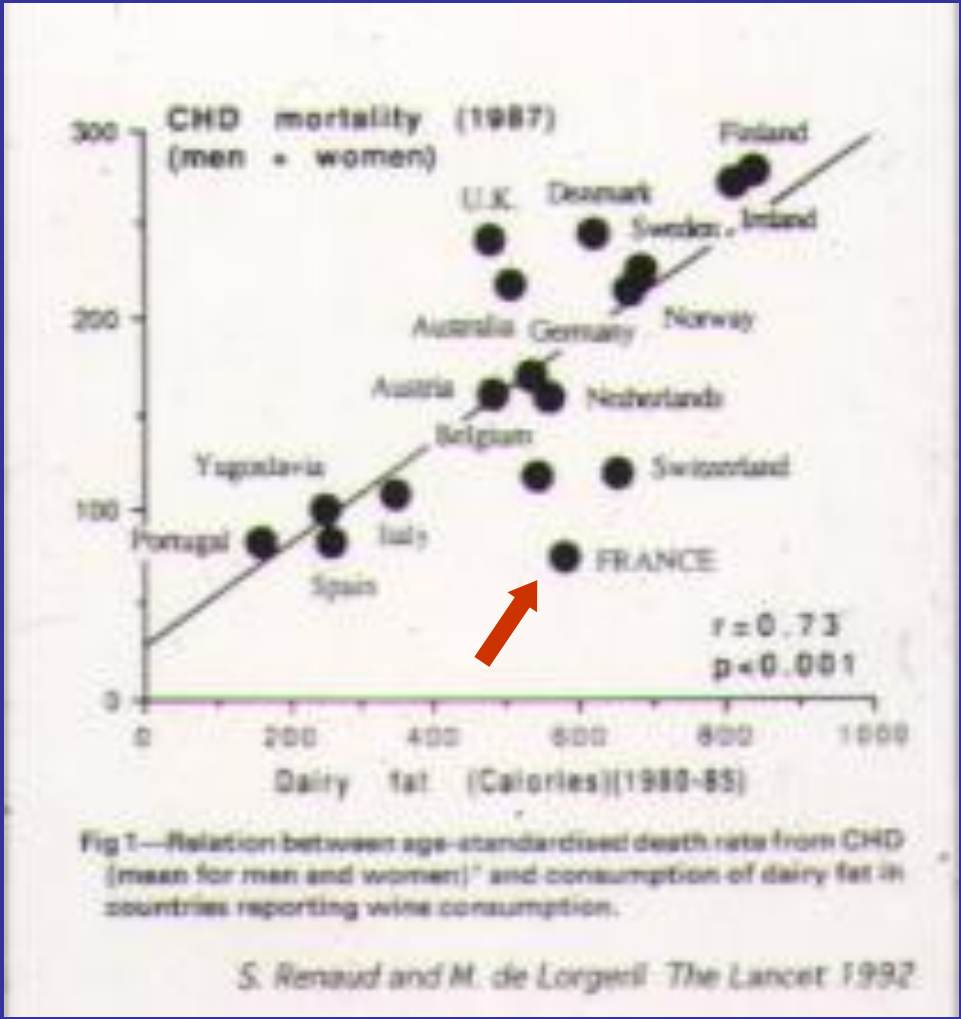


Fig 1—Relation between age-standardised death rate from CHD (mean for men and women)* and consumption of dairy fat in countries reporting wine consumption.

S. Renaud and M. de Lorgeril The Lancet 1992

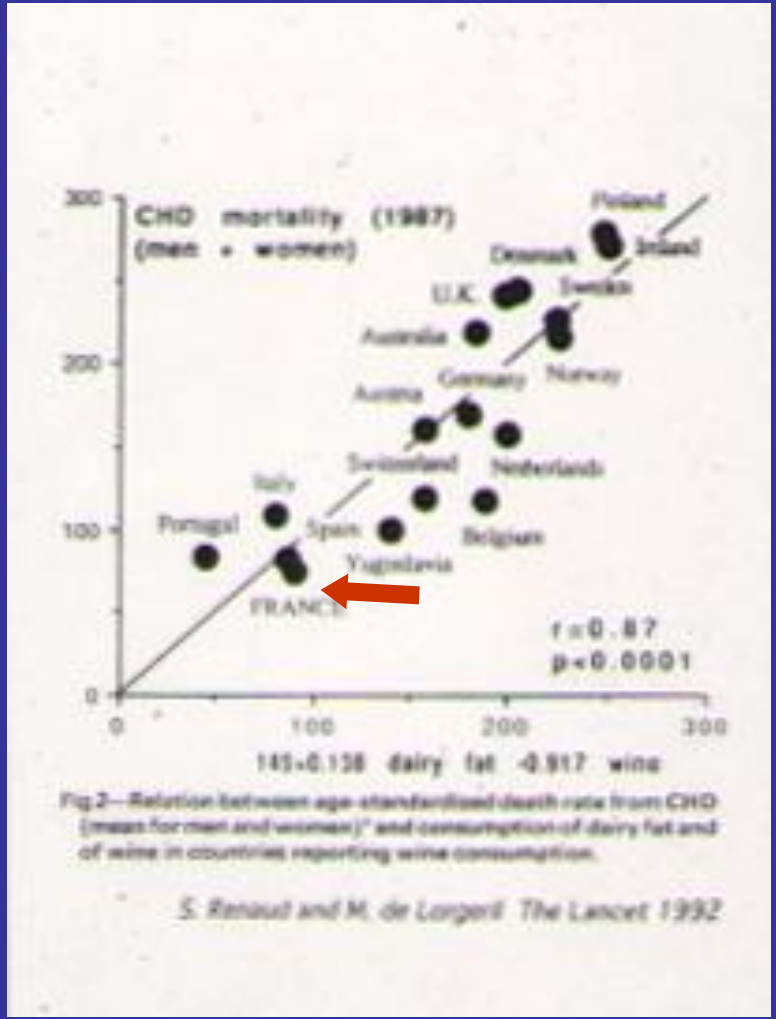


Fig 2—Relation between age-standardised death rate from CHD (mean for men and women)* and consumption of dairy fat and of wine in countries reporting wine consumption.

S. Renaud and M. de Lorgeril The Lancet 1992

CI SONO PROVE SCIENTIFICHE CHE IL VINO FA BENE ALLA SALUTE?

Renato Guttuso
La Vucciria, 1974.
Olio su tela, 300x300.
Universita' degli Studi di Palermo

Meta-Analysis of Wine and Beer Consumption in Relation to Vascular Risk

Augusto Di Castelnuovo, MS; Serenella Rotondo, MS; Licia Iacoviello, MD, PhD; Maria Benedetta Donati, MD, PhD; Giovanni de Gaetano, MD, PhD

Background—Many epidemiological studies have evaluated whether different alcoholic beverages protect against cardiovascular disease. We performed a meta-analysis of 26 studies on the relationship between wine or beer consumption and vascular risk.

Methods and Results—General variance-based method and fitting models were applied to pooled data derived from 26 studies that gave a quantitative estimation of the vascular risk associated with either beverage consumption. From 13 studies involving 209 418 persons, the relative risk of vascular disease associated with wine intake was 0.68 (95% confidence interval, 0.59 to 0.77) relative to nondrinkers. There was strong evidence from 10 studies involving 176 042 persons to support a J-shaped relationship between different amounts of wine intake and vascular risk. A statistically significant inverse association was found up to a daily intake of 150 mL of wine. The overall relative risk of moderate beer consumption, which was measured in 15 studies involving 208 036 persons, was 0.78 (95% confidence interval, 0.70 to 0.86). However, no significant relationship between different amounts of beer intake and vascular risk was found after meta-analyzing 7 studies involving 136 382 persons.

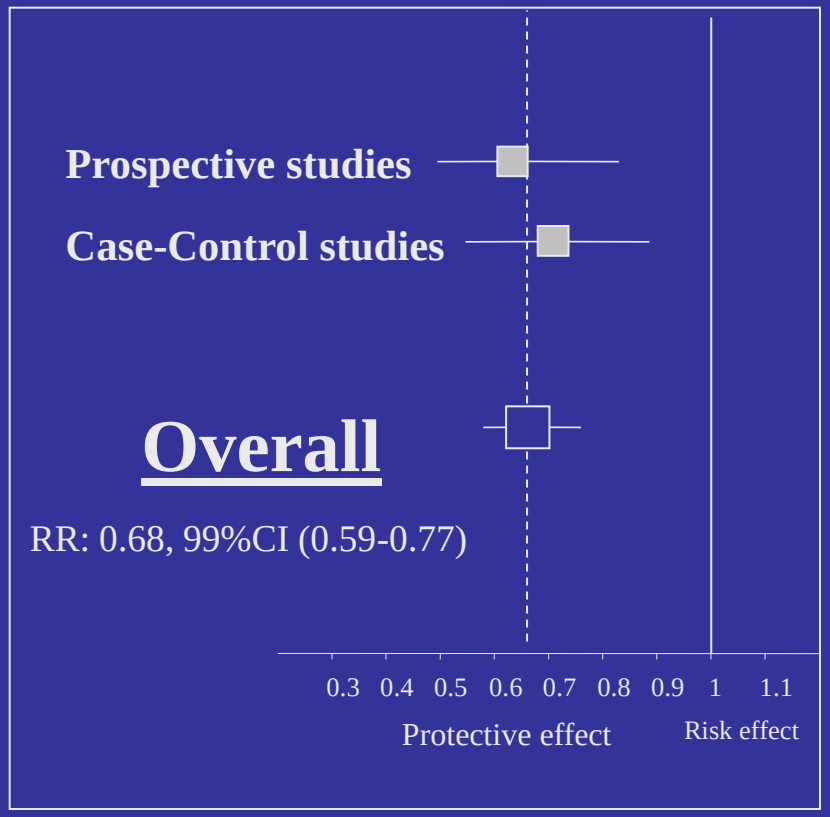
Conclusions—These findings show evidence of a significant inverse association between light-to-moderate wine consumption and vascular risk. A similar, although smaller association was also apparent in beer consumption studies. The latter finding, however, is difficult to interpret because no meaningful relationship could be found between different amounts of beer intake and vascular risk. **(*Circulation*. 2002;105:2836-2844.)**

Key Words: cardiovascular diseases ■ wine ■ beer ■ meta-analysis

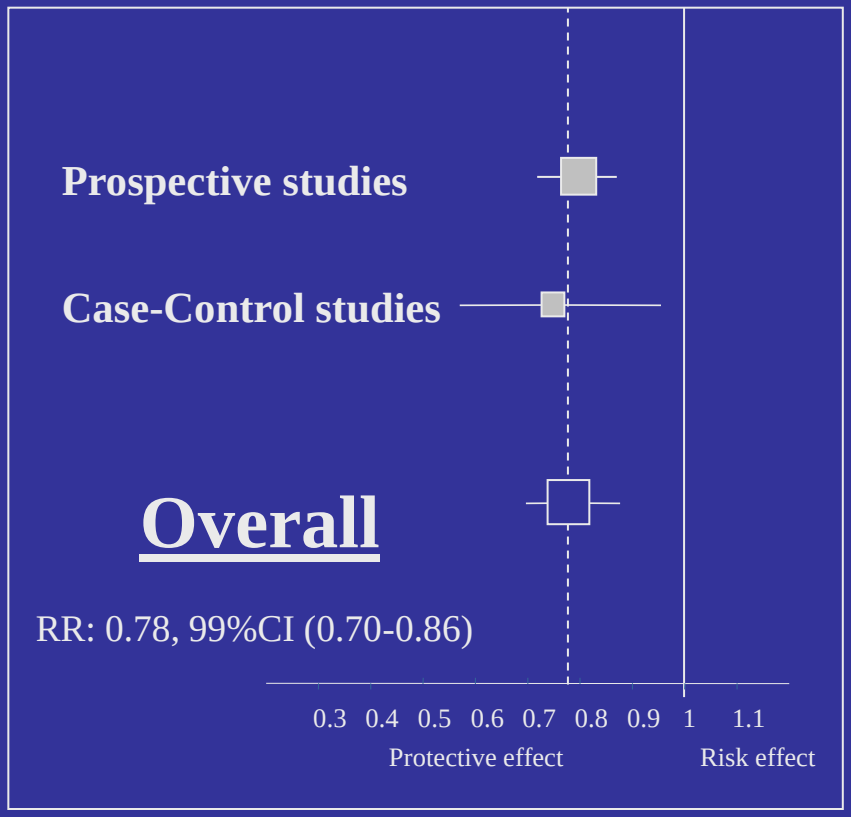
Odds Ratios for Vascular Disease comparing

Wine intake vs **no wine** intake **Beer** intake vs **no beer** intake

13 studies reporting data for wine
209,418 subjects



15 studies reporting data for beer
208,036 subjects



Di Castelnuovo et al, Circulation 2002

Subgroup analysis

	WINE			BEER		
SUBGROUP	N	RR	99%CI	N	RR	99%CI
Gender effect						
Only males	6	0.87	0.68-1.12	6	0.82	0.68-0.99
Both gender	7	0.53	0.42-0.68	9	0.72	0.58-0.90
Age effect						
All ages	6	0.69	0.50-0.94	8	0.75	0.60-0.94
<65 years	6	0.78	0.60-1.00	6	0.82	0.67-1.02

Di Castelnuovo et al, Circulation, 2002

Fotoğraf: George Steinmetz

Dev Develer

Subgroup analysis

	WINE			BEER		
SUBGROUP	N	RR	99%CI	N	RR	99%CI
Adjustment for different types of alcoholic beverages						
Not Adjusted	3	0.53	0.39-0.73	4	0.79	0.62-1.01
Adjusted	10	0.75	0.61-0.93	11	0.77	0.65-0.92
Adjustment for indicators of social class level						
Not Adjusted	3	0.78	0.56-1.08	3	0.68	0.41-1.14
Adjusted	10	0.64	0.52-0.79	12	0.78	0.68-0.91

Di Castelnuovo et al, Circulation, 2002

THE DEFINITION OF REFERENCE GROUP

Subgroup analysis

	WINE			BEER		
SUBGROUP	N	RR	99%CI	N	RR	99%CI
No light or occasional drinkers in the reference group	10	**0.73**	0.59-0.91	11	**0.80**	0.66-0.97
No ex-drinkers in the reference group	5	**0.61**	0.47-0.79	5	**0.77**	0.63-0.94
With the same reference group both for wine and beer	9	**0.62**	0.50-0.77	9	**0.72**	0.59-0.88

Di Castelnuovo et al, Circulation, 2002

QUANTO VINO SI PUO' BERE PER AVERE QUALCHE VANTAGGIO PER LA SALUTE?

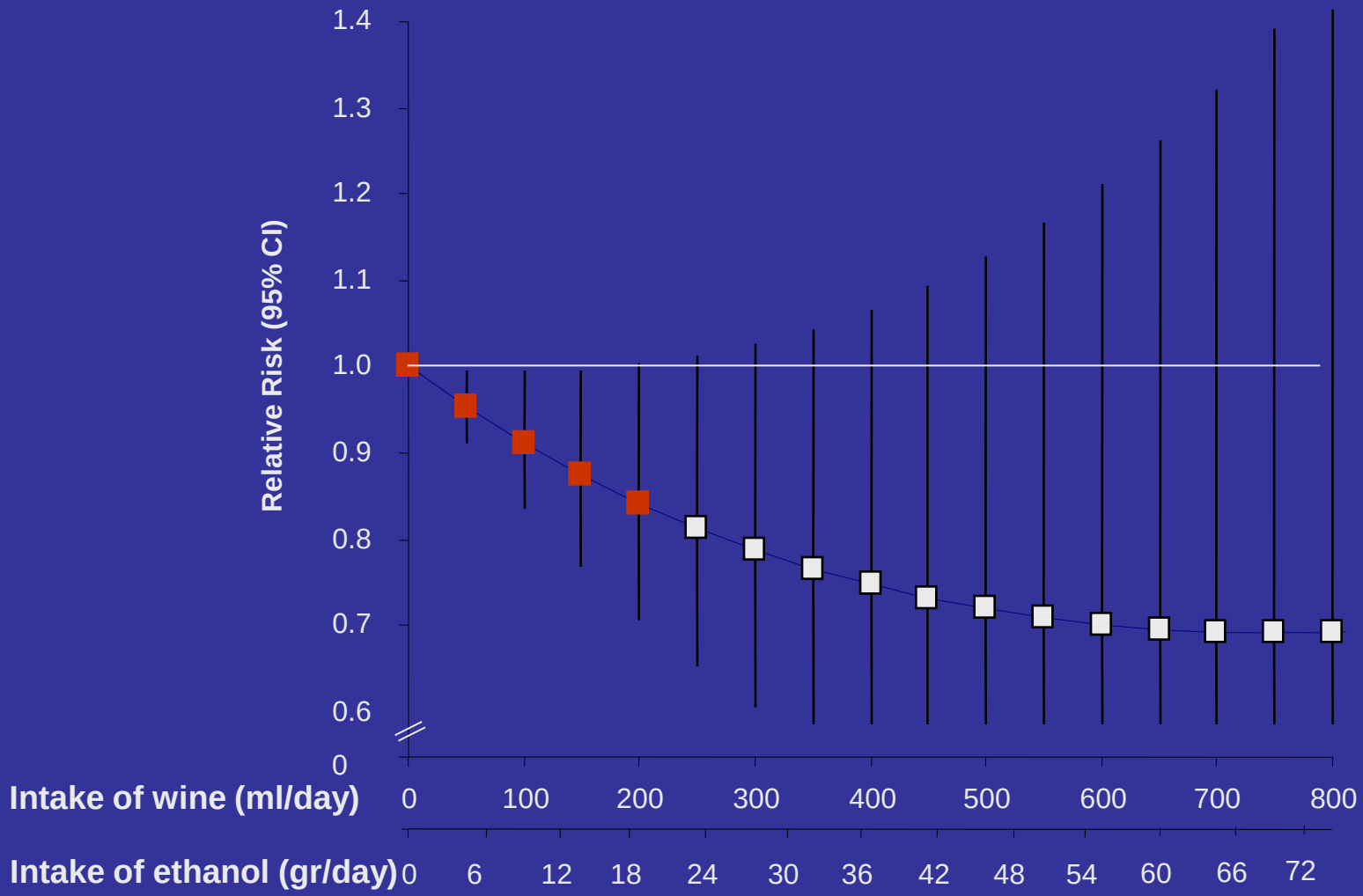
B. “Dose-Response” meta-analysis

- 10 studies reporting trend analysis for **WINE**
  176,042 subjects

- 7 studies reporting trend analysis for **BEER**
  136,382 subjects

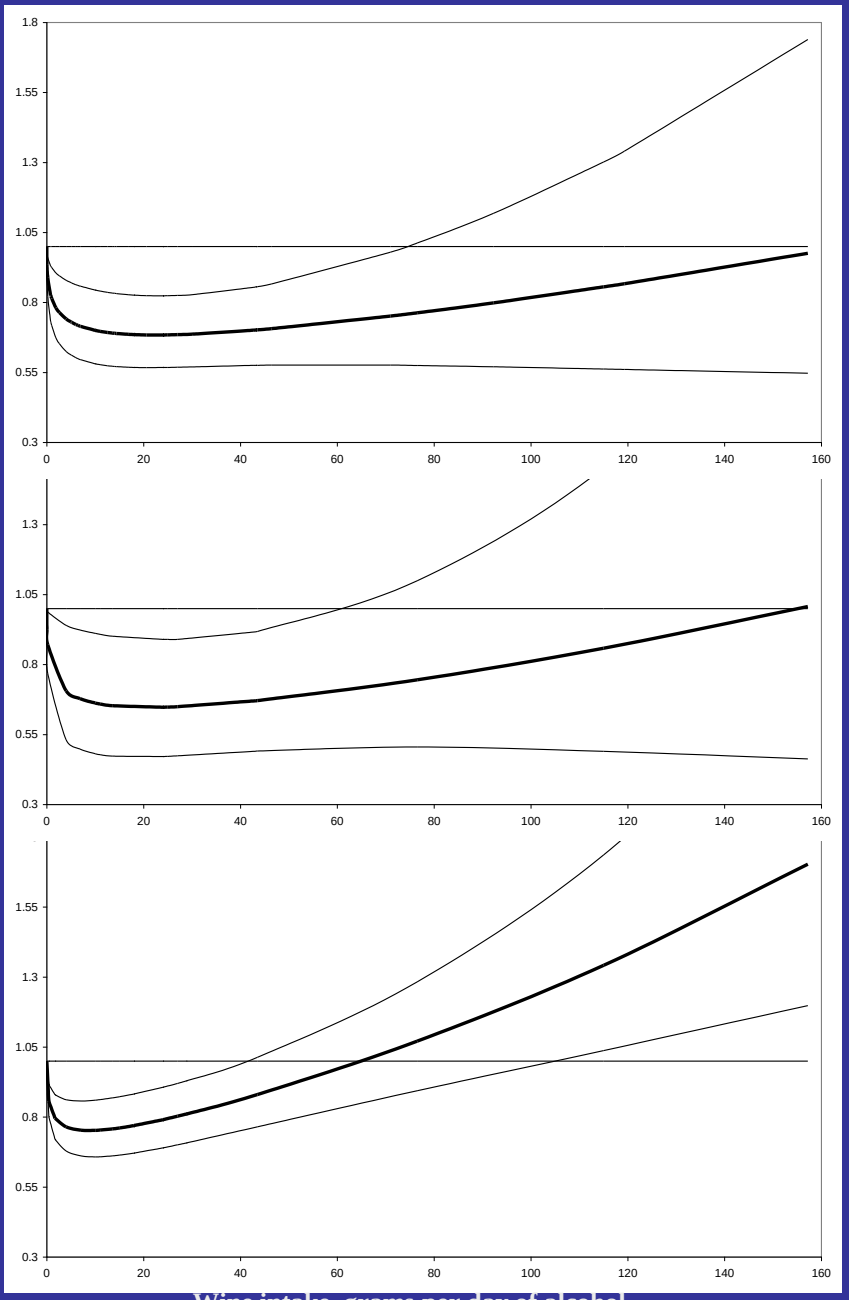
Di Castelnuovo et al, Circulation, 2002

BEST FITTING MODEL FOR WINE EFFECT



Di Castelnuovo et al, Circulation, 2002

Up-date 2011: Wine consumption and …



Fatal and not fatal CVD events: 14 Studies

9 prospective studies involving 247,141 subjects

5 case-control studies 2,621 case *vs* 5,086 controls

CVD mortality: 5 Studies

5 prospective studies involving 71,699 subjects

Total mortality, 5 Studies

5 prospective studies involving 56.696 subjects

Costanzo et al, Eur J Epidemiol. 2011

IL VINO IN MODERAZIONE FA BENE ALLA SALUTE IN QUALUNQUE MODO LO SI BEVA?

Does drinking pattern modify the effect of alcohol on the risk of coronary heart disease? Evidence from a meta-analysis

V Bagnardi,[1,2] W Zatonski,[3] L Scotti,[1,4] C La Vecchia,[4,5] G Corrao[1]

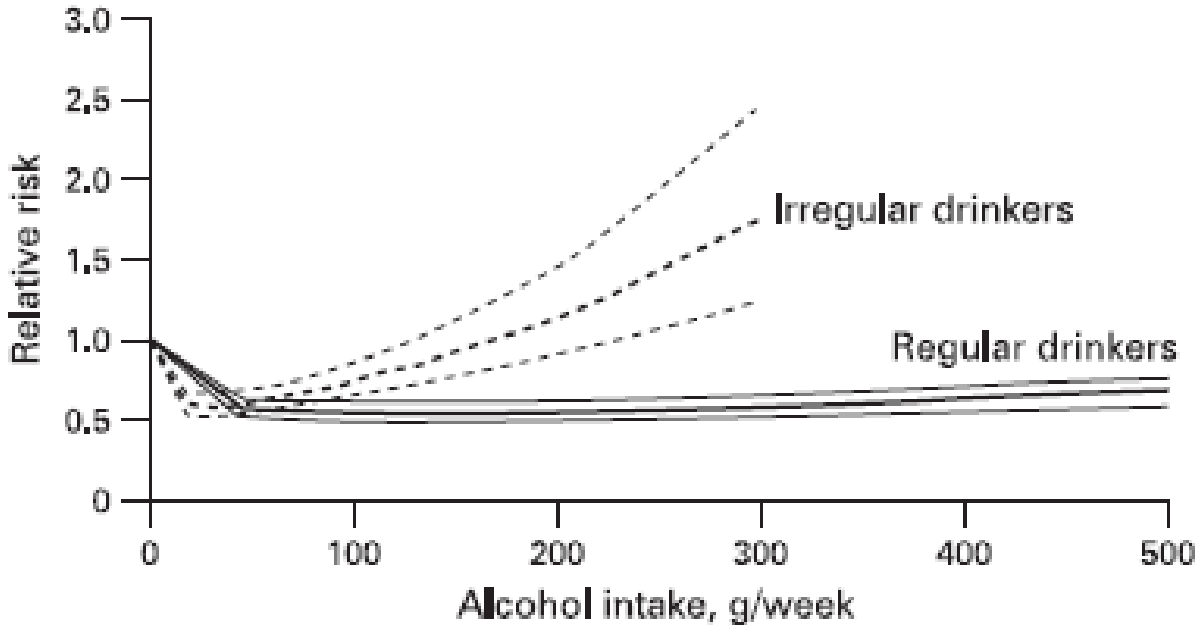


Figure 2 Meta-regression of dose–response relation between weekly alcohol intake and relative risk (and the corresponding 95% confidence bands) of coronary heart disease in regular and irregular drinkers.

Bagnardi et al, J Epidemiol Community Health 2008

SE UNO HA GIA' AVUTO UN INFARTO CARDIACO O UN'ALTRA MALATTIA CARDIOVASCOLARE PUO' BERE UN PO' DI VINO OPPURE E' MEGLIO ASTENERSI?

Journal of the American College of Cardiology

Published by Elsevier Inc.

Vol. 55, No. 13, 2010
ISSN 0735-1097/10/$36.00
doi:10.1016/j.jacc.2010.01.006

QUARTERLY FOCUS ISSUE: PREVENTION/OUTCOMES

Alcohol Consumption and Mortality in Patients With Cardiovascular Disease

A Meta-Analysis

Simona Costanzo, ScD, Augusto Di Castelnuovo, ScD, Maria Benedetta Donati, MD, PhD, Licia Iacoviello, MD, PhD, Giovanni de Gaetano, MD, PhD

Campobasso, Italy

Objectives The purpose of this study was to quantify the relation between alcohol consumption and cardiovascular and total mortality in patients with a history of cardiovascular events.

Background Regular, moderate alcohol consumption by healthy people is associated with lower cardiovascular and all-cause mortality. No extensive meta-analysis is presently available on the possible association of alcohol consumption with secondary events in patients with cardiovascular disease.

Methods Articles were retrieved through October 2009 by search in PubMed and EMBASE. Fifty-four publications were identified, but only 8 were selected for our analyses, including 16,351 patients with a history of cardiovascular disease. Secondary events were cardiovascular or all-cause mortality. All selected studies were prospective. Data were pooled with a weighted, least-squares regression analysis of second-order fractional polynomial models.

Results The meta-analysis on cardiovascular mortality showed a J-shaped pooled curve with a significant maximal protection (average 22%) by alcohol at approximately 26 g/day. In the meta-analysis on mortality for any cause, J-shaped pooled curves were observed in the overall analysis (average maximal protection of 18% in the range of 5 to 10 g/day) and in all subgroups according to either the type of patients or the characteristics of the studies.

Conclusions In patients with cardiovascular disease, light to moderate alcohol consumption (5 to 25 g/day) was significantly associated with a lower incidence of cardiovascular and all-cause mortality. (J Am Coll Cardiol 2010;55: 1339–47) © 2010 by the American College of Cardiology Foundation

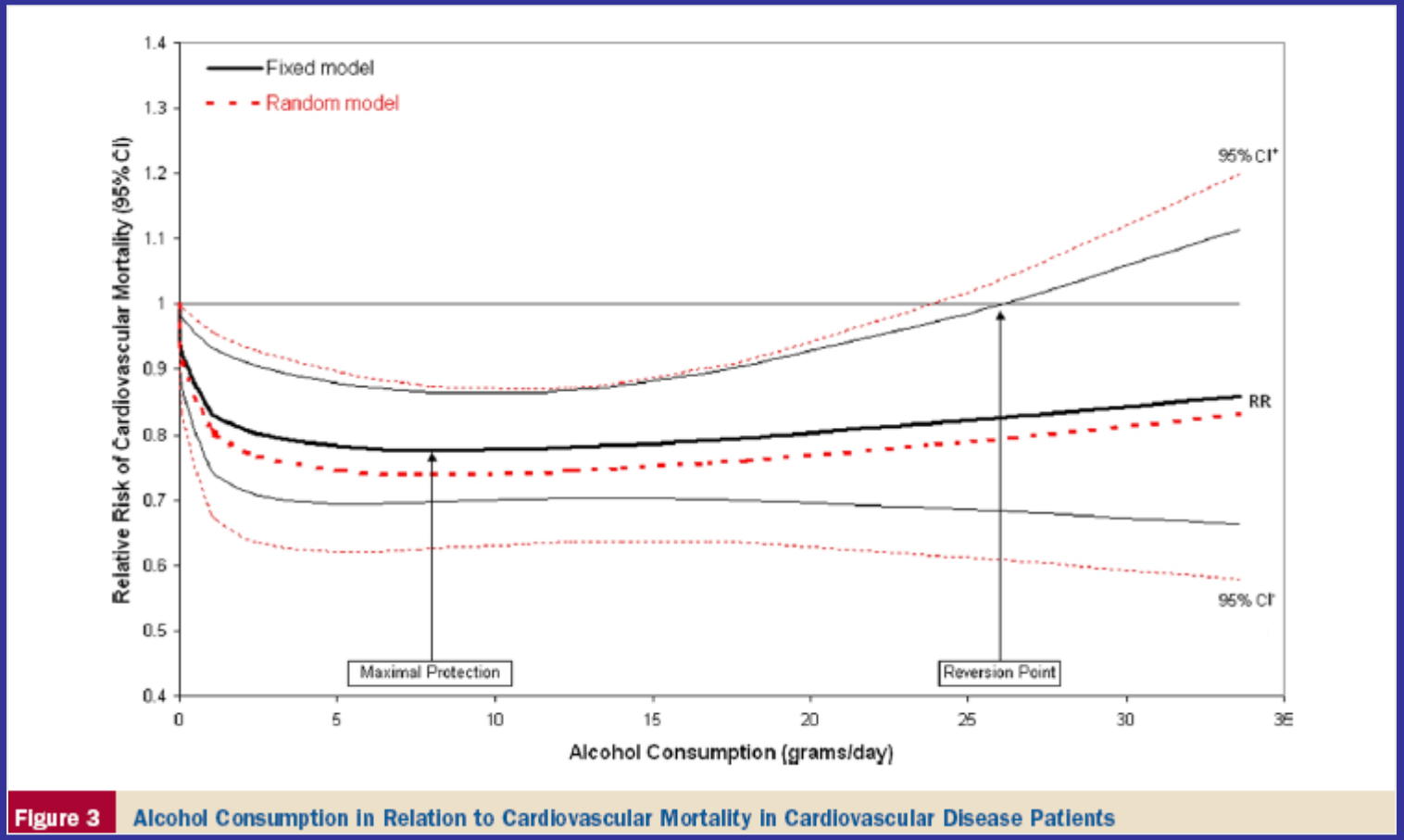


Figure 3 Alcohol Consumption in Relation to Cardiovascular Mortality in Cardiovascular Disease Patients

Costanzo et al, JACC 2010

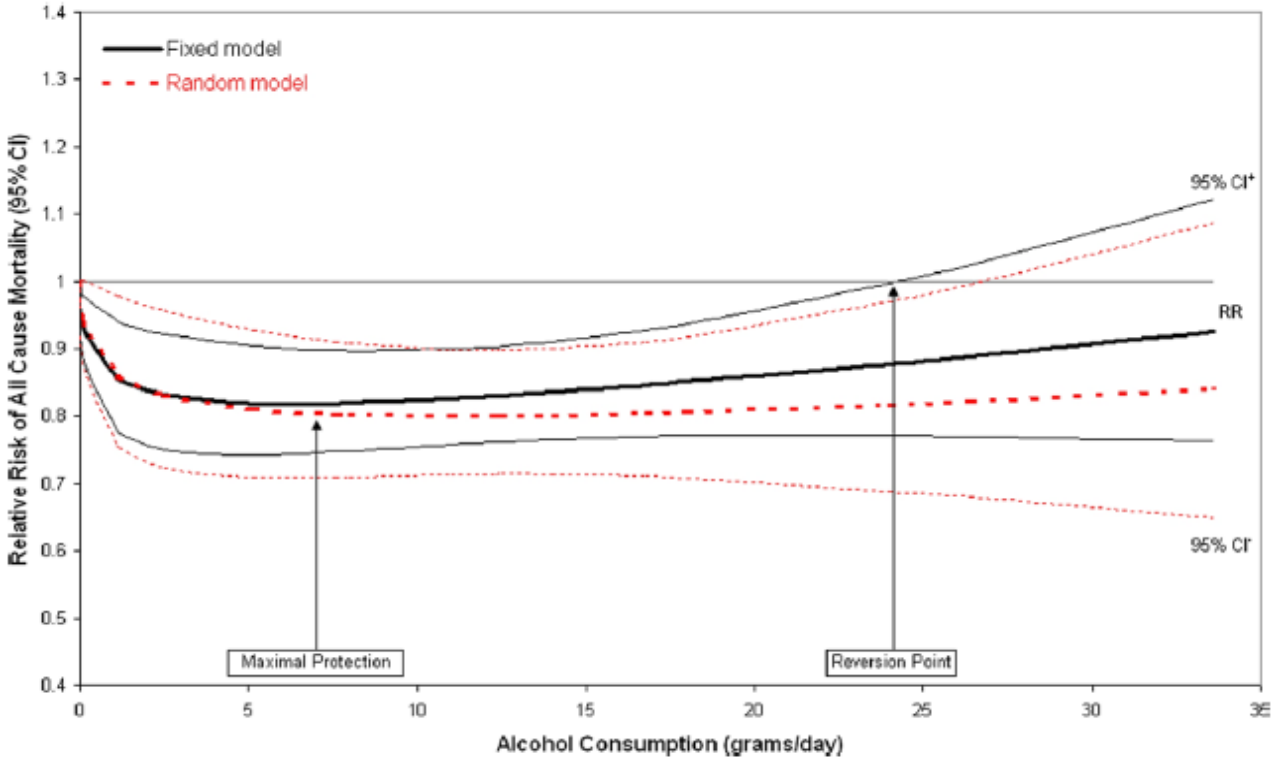


Figure 4 Alcohol Consumption in Relation to All-Cause Mortality in Cardiovascular Disease Patients

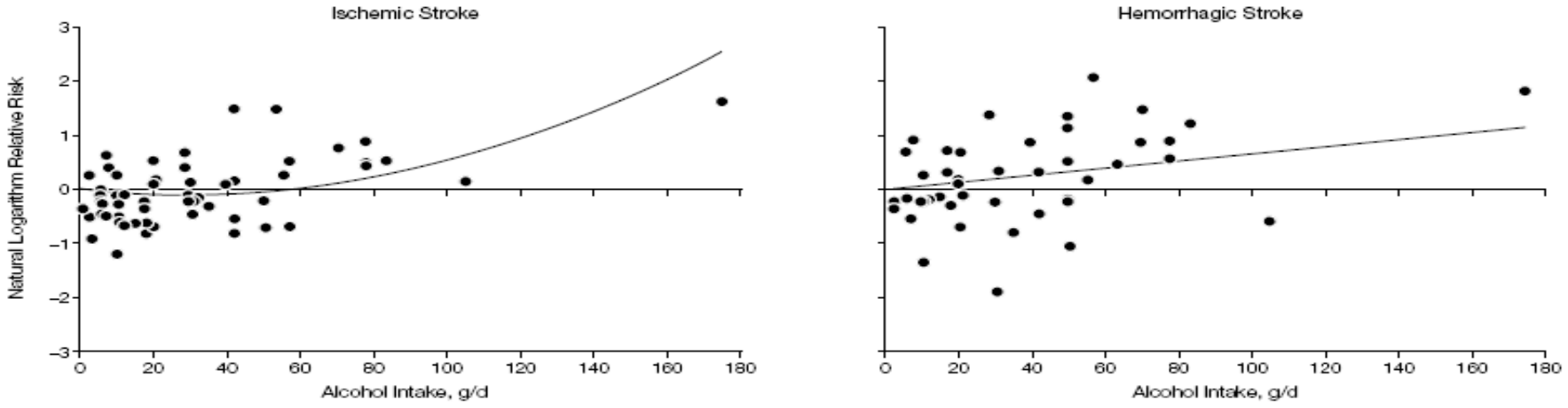
Costanzo et al, JACC 2010

MA SE IL VINO IN MODERAZIONE FA BENE CONTRO LE MALATTIE CARDIOVASCOLARI,

NON E' CHE POI FA MALE CONTRO ALTRE MALATTIE?

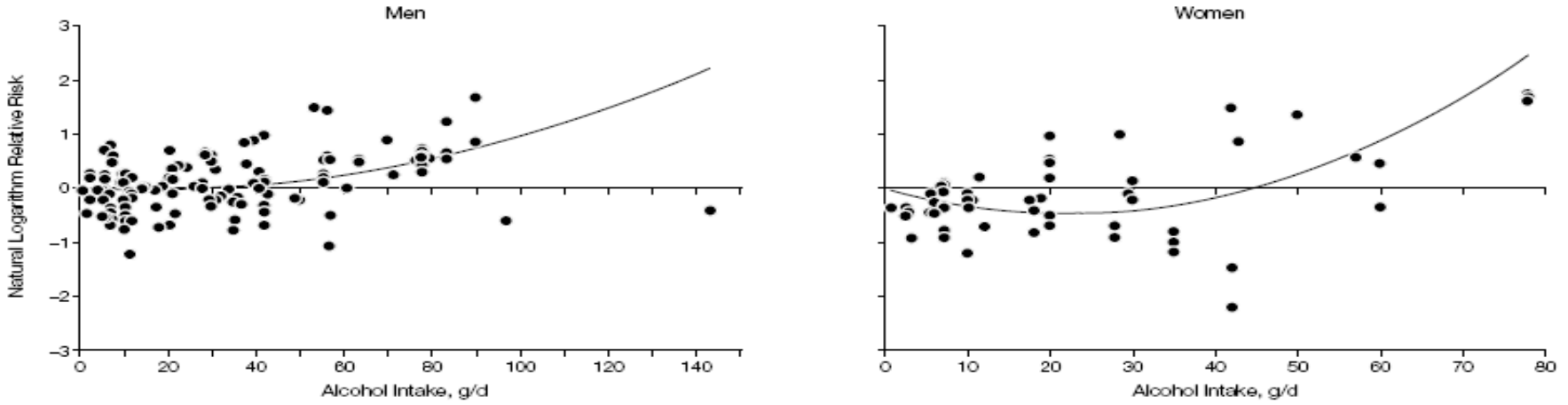
Alcohol Consumption and Risk of Stroke

Figure 1. Scatterplot of Log Relative Risk and Meta-Regression Curve of Stroke Associated With Alcohol Consumption by Subtypes of Stroke



Most studies provided more than 1 relative risk estimate for multiple levels of alcohol consumption.

Figure 2. Scatterplot of Log Relative Risk and Meta-Regression Curve of Stroke Associated With Alcohol Consumption by Sex



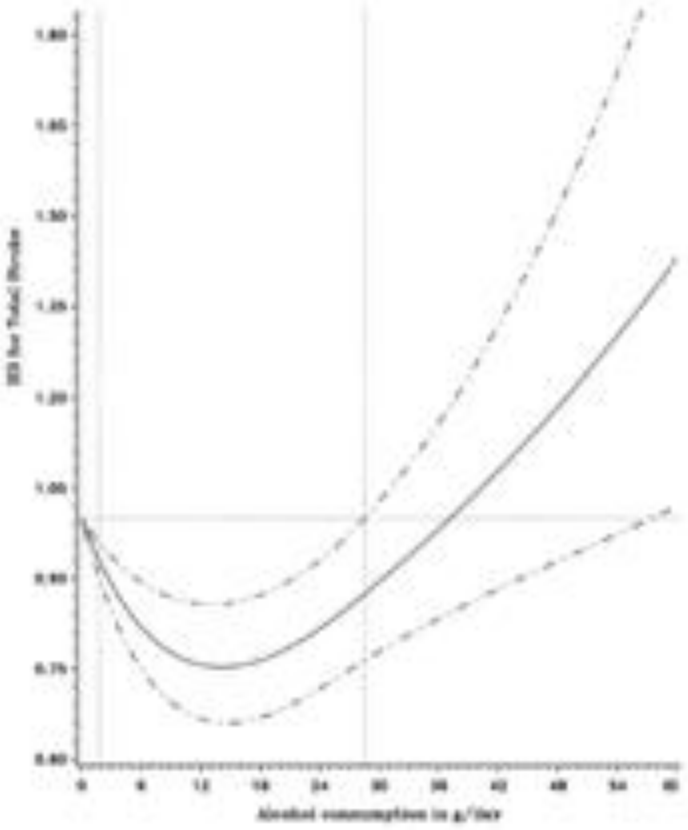
Most studies provided more than 1 relative risk estimate for multiple levels of alcohol consumption.

Reynolds et al, JAMA 2003

Alcohol Consumption and Risk of Stroke in Women

Monik Jimenez, ScD; Stephanie E. Chiuve, ScD; Robert J. Glynn, PhD, ScD; Meir J. Stampfer, MD, DrPH; Carlos A. Camargo, Jr, MD, DrPH; Walter C. Willett, MD, DrPH; JoAnn E. Manson, MD, DrPH; Kathryn M. Rexrode, MD, MPH

Multivariable association between alcohol consumption and total stroke



Stroke, April 2012

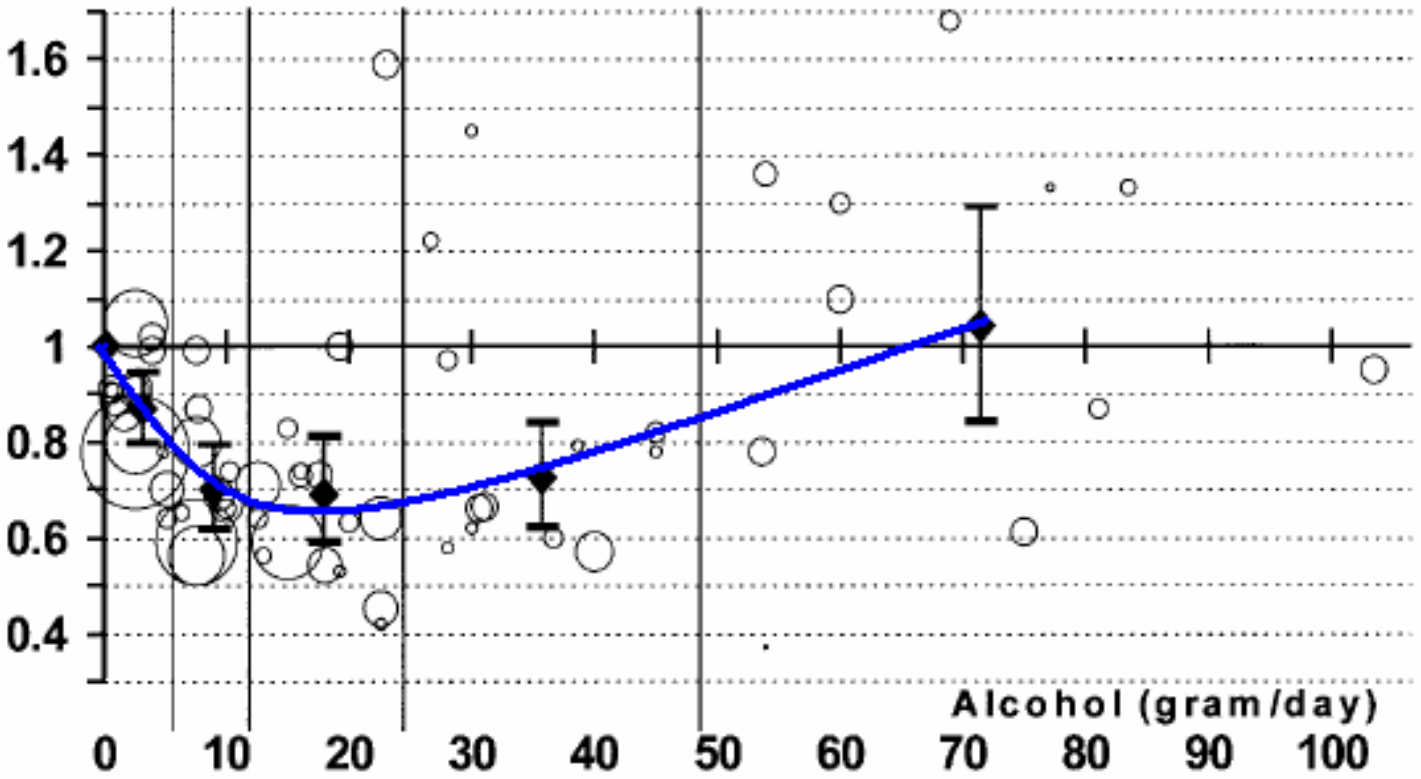
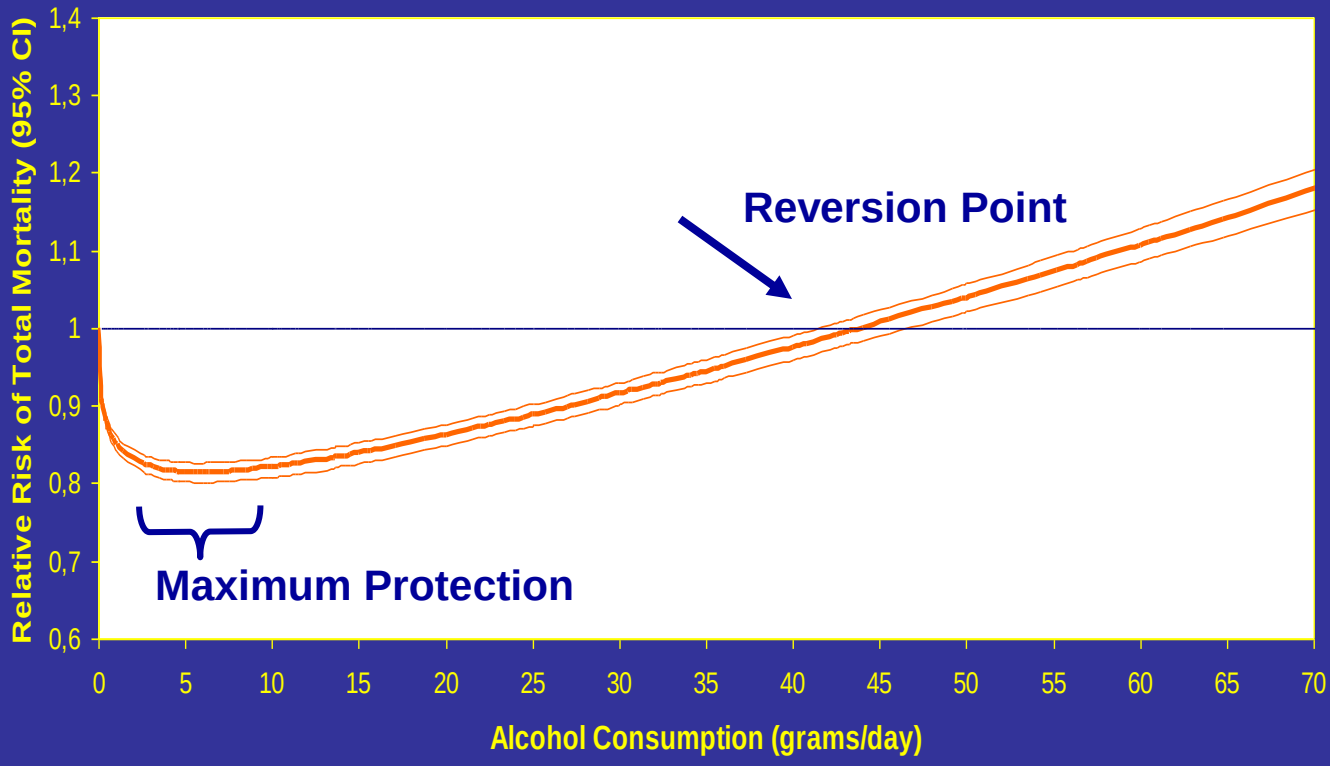


Figure 1—*Scatterplot of the RR estimates of type 2 diabetes reported in the 15 included studies, and the pooled RR estimates with corresponding 95% CIs for five alcohol consumption categories with the nonconsumers as reference category. Each study provides more than one RR estimate. The area of each circle is proportional to the precision of the RR estimate (inverse of its variance).*

Koppes et al, Diabetes Care 2005

QUALE E' L'EFFETTO DI UN CONSUMO MODERATO DI ALCOL SULLA MORTALITA' TOTALE?

ALL STUDIES
(1,015,835 SUBJECTS and 94,533 DEATHS)



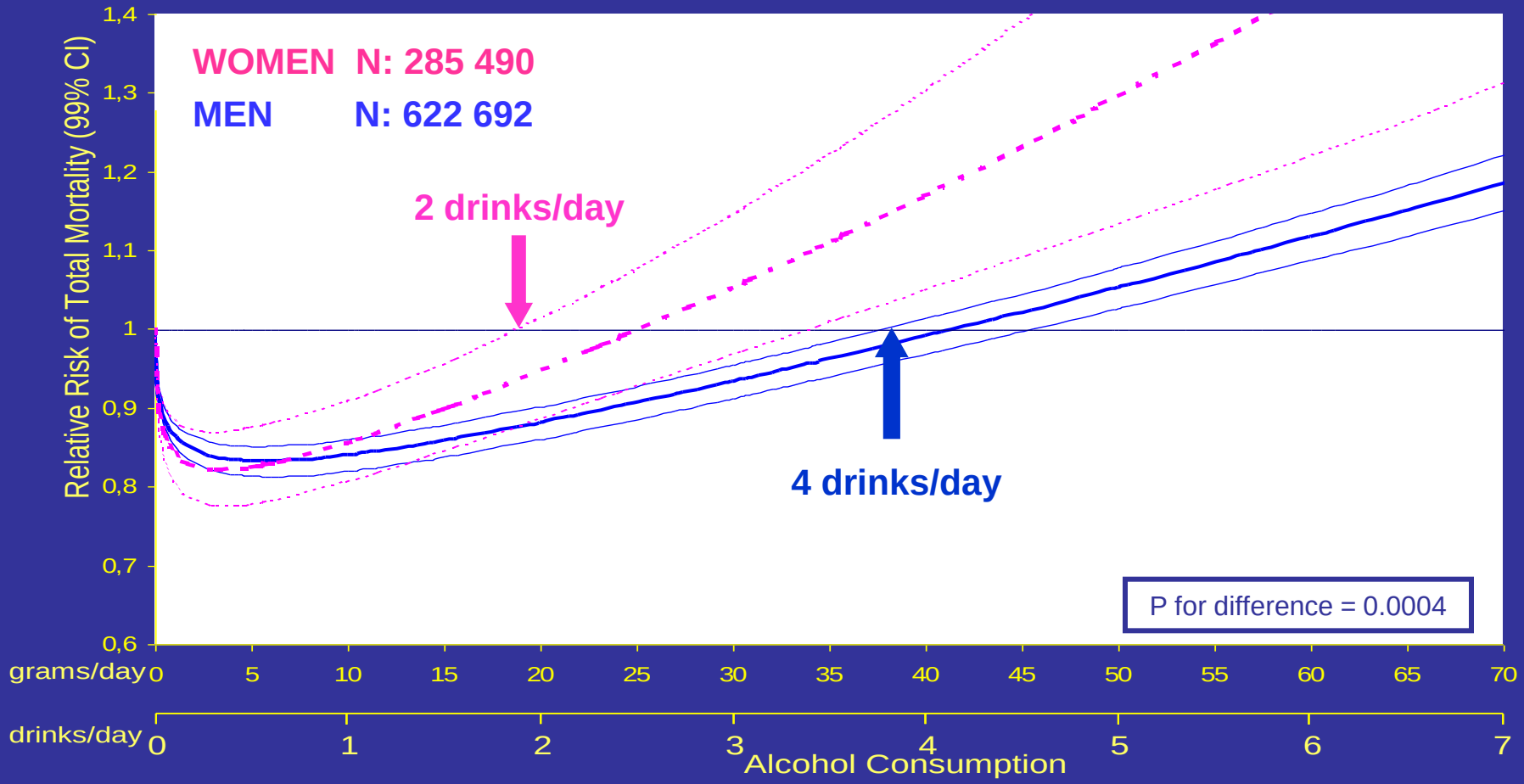
MAX PROTECTION: RR= 0.81 (0.80-0.83) → ALCOHOL INTAKE = 6 gr/day

REVERSION POINT: → ALCOHOL INTAKE = 42 gr/day

Di Castelnuovo et al, Arch Intern Med 2006

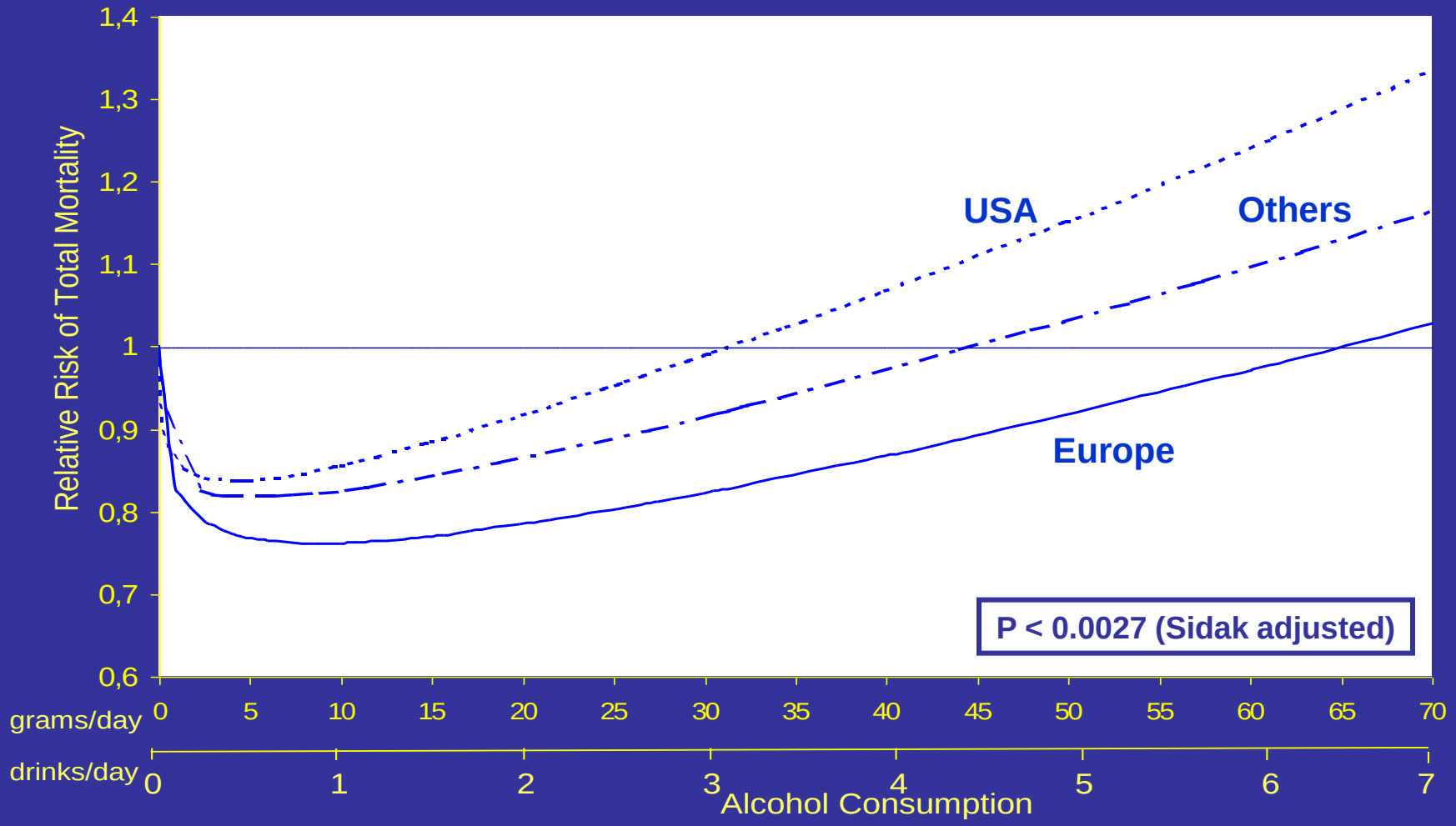
SEX DIFFERENCES

(WOMEN 285 490 ; MEN 622 692)



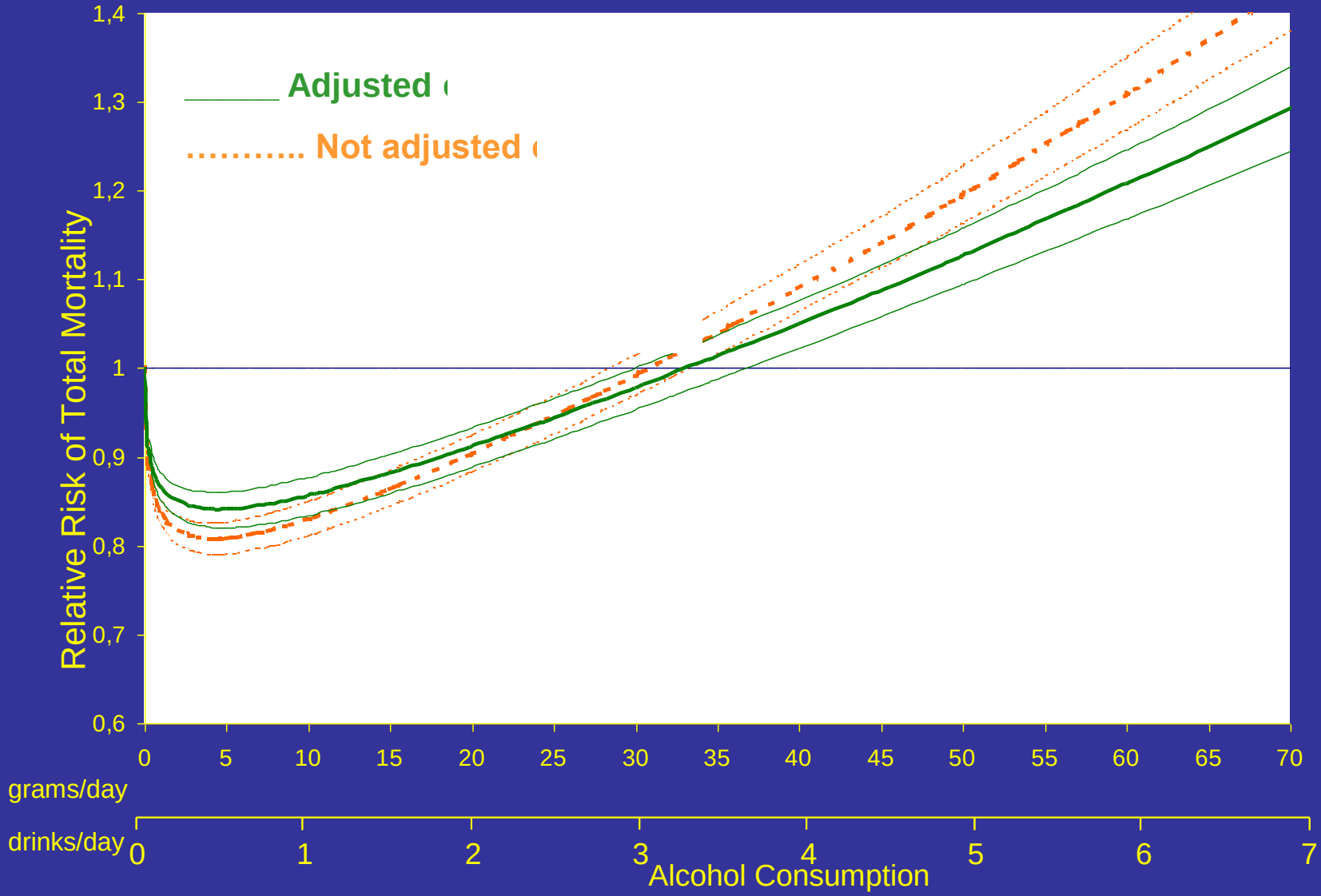
Di Castelnuovo et al, Arch Intern Med 2006

COUNTRY DIFFERENCES (MEN)



Di Castelnuovo et al, Arch Intern Med 2006

EFFECT OF ADJUSTMENT



Di Castelnuovo et al, Arch Intern Med 2006

IL VINO FA BENE A TUTTE LE ETA'?

RELATION BETWEEN ALL CAUSE MORTALITY AND ALCOHOL CONSUMPTION, BY AGE AND SEX

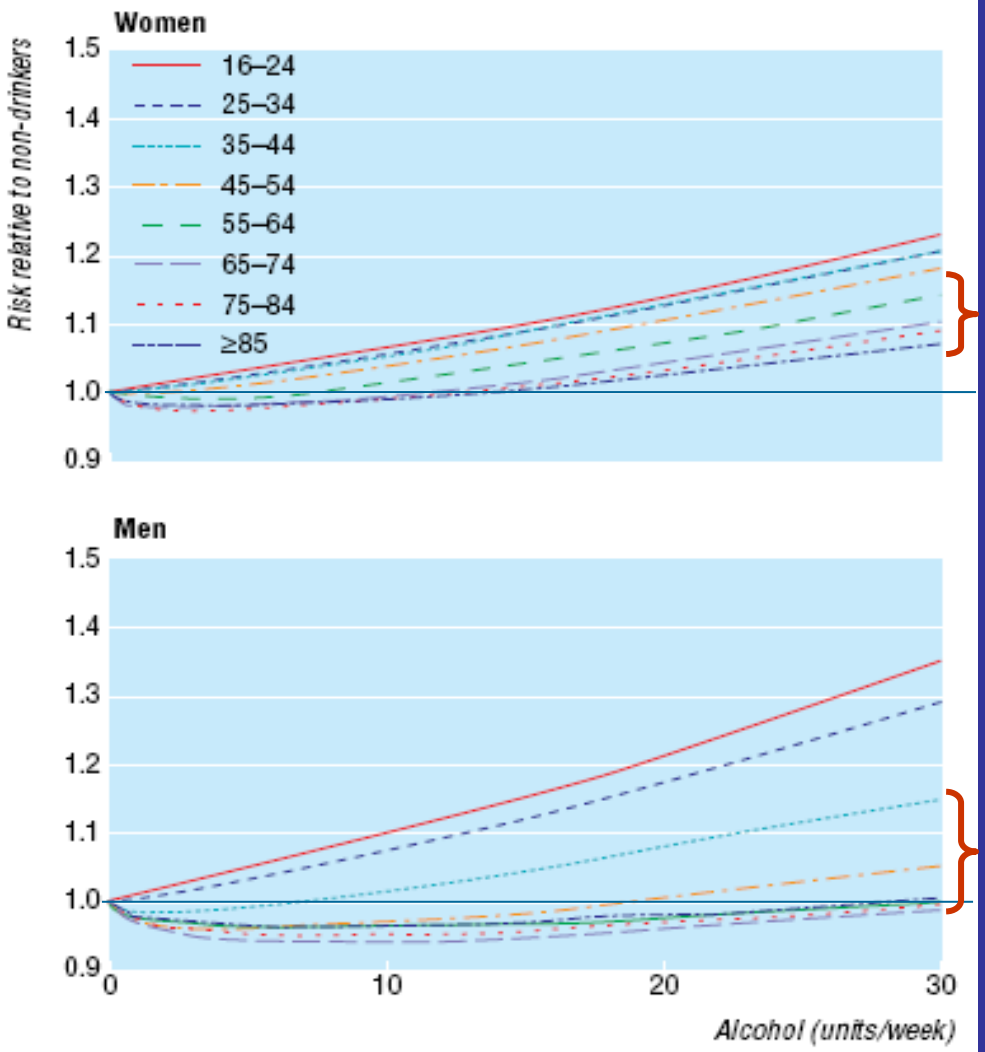


Fig 4 Risk of all cause mortality (relative to non-drinkers) by level of alcohol consumption in women and men

Women:

Positive relation up to age 35-44, but U shape appears from age 45-54.

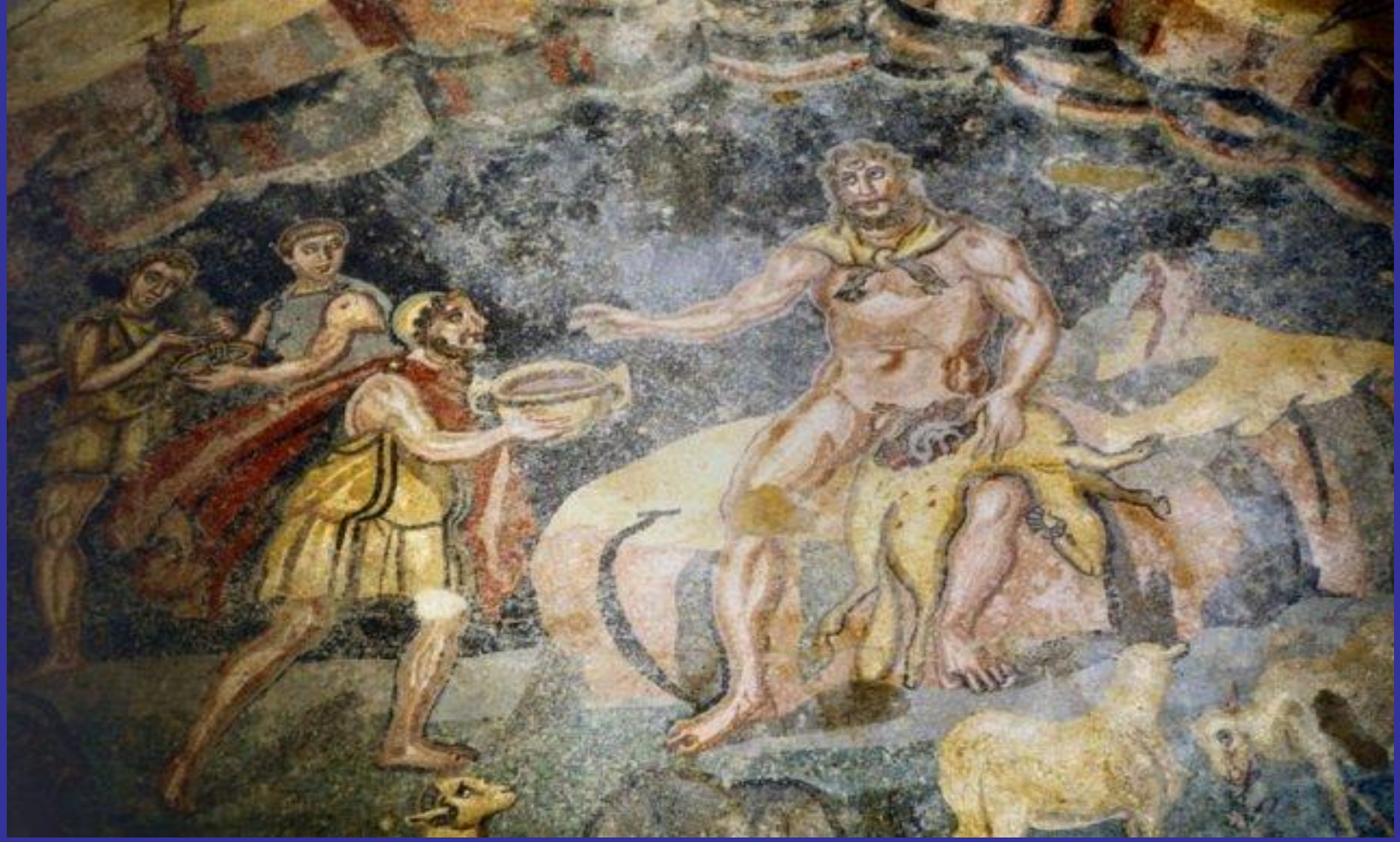
Men:

Below 35 years the curve is steeper than it is in women,
but U shape appears at age 35-44.

White et al, BMJ 2002

THE NOVEL HAMLET
TO DRINK OR NOT TO DRINK ?

ELOGIO DELLA MODERAZIONE



Mosaico, Villa Romana del Casale,
Piazza Armerina, Sicilia

CONCLUSIONI

- **RISCHIO DEL BERE ECCESSIVO!**
- **IL CONSUMO MODERATO DI ALCOL PUO' DARE UN NETTO BENEFICIO IN TERMINI DI RISCHIO CARDIOVASCOLARE E DI SOPRAVVIVENZA**
- **L'EFFETTO E' DIVERSO NEGLI UOMINI E NELLE DONNE E A DIVERSE ETA'**

CONCLUSIONI

- **I BEVITORI ECCESSIVI DEVONO ESSERE SPINTI A RIDURRE IL LORO CONSUMO**

- **I BEVITORI MODERATI DEVONO ESSERE INCORAGIATI A CONTINUARE NELLA MODERAZIONE A MENO CHE NON CI SIANO CONDIZIONI PRTICOLARI (GRAVIDNZA, EPATOPATIE)**

- **I NON BEVITORI VANNO INFORMATI SUGLI EFFETTI PROTETTIVI DEL BERE MODERATO**

CONCLUSIONI

BERE MODERATO SIGNIFICA:

- BERE BEVANDE DI ALTA QUALITA'
- DURANTE I PASTI
- IN UN AMBIENTE FAMILIARE E RILASSATO
- NEL CONTESTO DELLA DIETA MEDITERRANEA

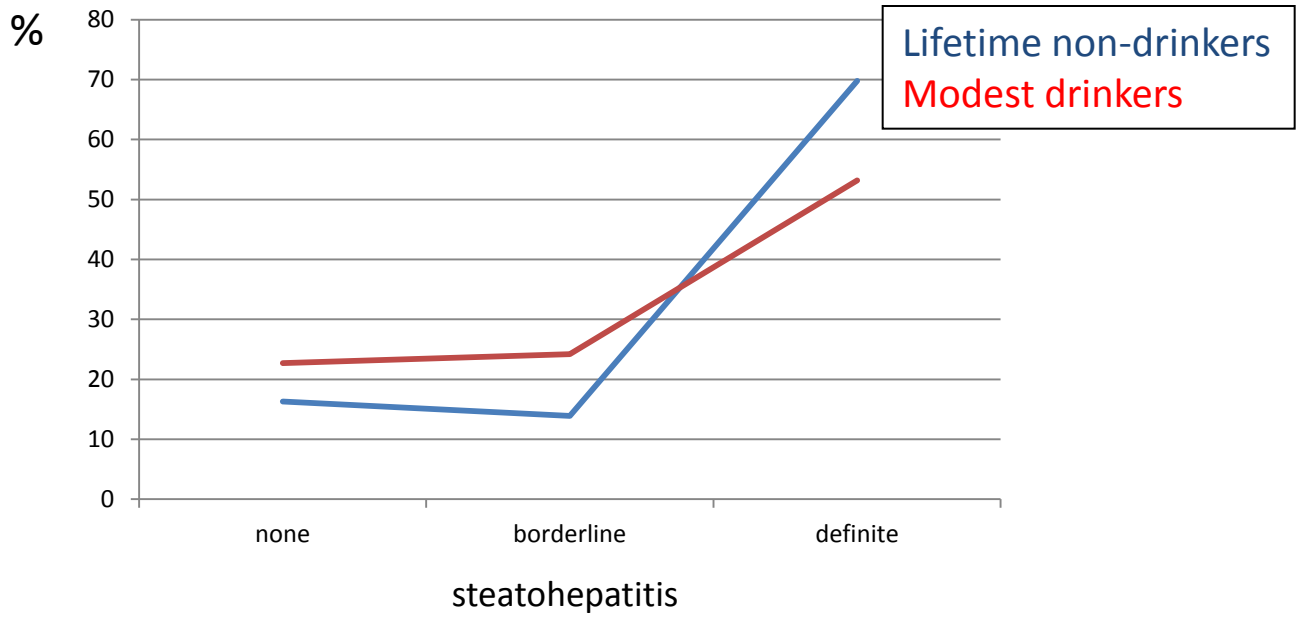

NEED CASH
FOR ALCOHOL
RESEARCH

Modest alcohol consumption is associated with decreased prevalence of steatohepatitis in patients with non-alcoholic fatty liver disease (NAFLD)

Winston Dunn[1,2,†], Arun J. Sanyal[3,†], Elizabeth M. Brunt[4,†], Aynur Unalp-Arida[5,†], Michael Donohue[6,†], Arthur J. McCullough[7,†], Jeffrey B. Schwimmer[8,9,*,†]

Prevalence and adjusted odds ratio for histological features in lifetime non-drinkers (N=251) and modest drinkers (N=331)

		Lifetime non-drinker (%)	Modest drinker (%)	Adjusted summary odds ratio (95% CI)	*p* value
Steatohepatitis	None	16.3	22.7	0.52 (0.36-0.76)	0.0006
	Borderline	13.9	24.2		
	Definite	69.8	53.2		
Fibrosis stage†	0	19.9	30.0	0.56 (0.41-0.78)	0.0005
	1	24.7	33.6		
	2	22.3	15.6		
	3	20.3	14.7		
	4	12.7	6.1		


%
80
70
60
50
40
30
20
10
0
none
borderline
definite
steatohepatitis
Lifetime non-drinkers
Modest drinkers

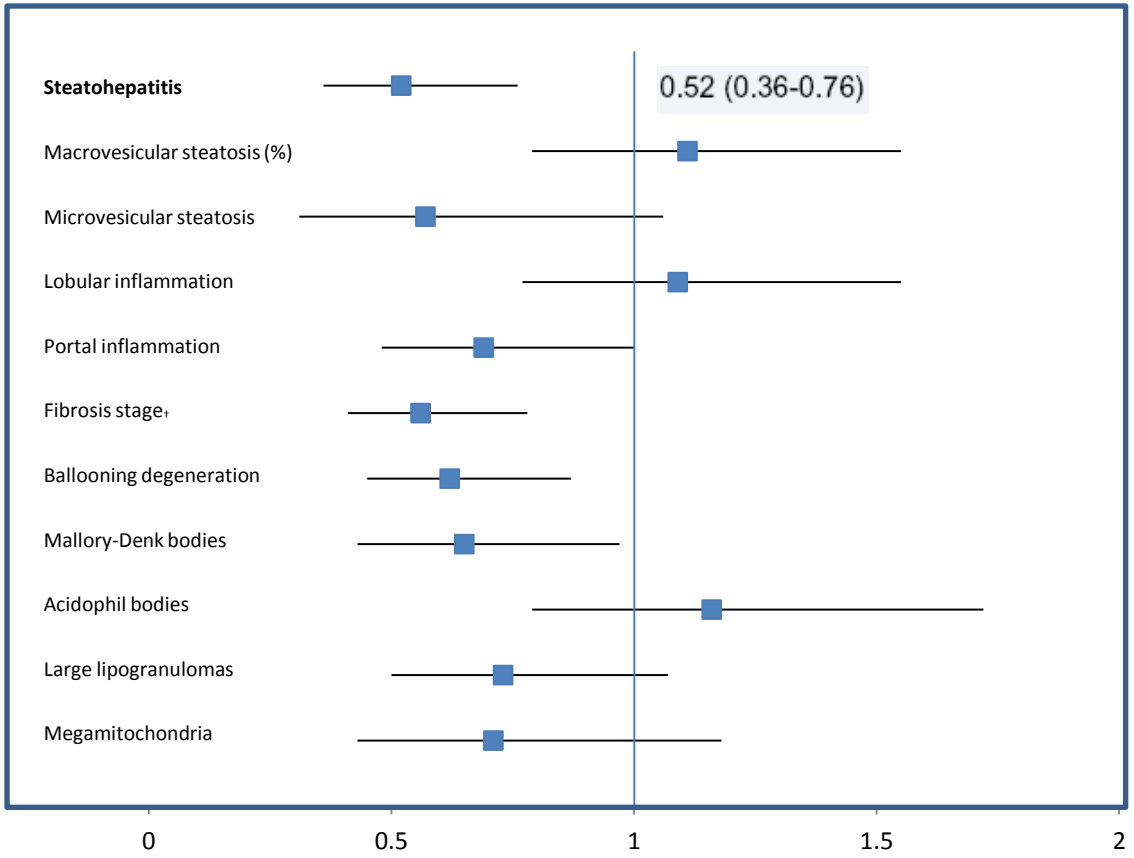
JHEPAT 4201
24 April 2012
ARTICLE IN PRESS
No. of Pages 8

Research Article

EASL EUROPEAN ASSOCIATION FOR THE STUDY OF THE LIVER | JOURNAL OF HEPATOLOGY

Modest alcohol consumption is associated with decreased prevalence of steatohepatitis in patients with non-alcoholic fatty liver disease (NAFLD)

Winston Dunn[1,2,†], Arun J. Sanyal[3,†], Elizabeth M. Brunt[4,†], Aynur Unalp-Arida[5,†], Michael Donohue[6,†], Arthur J. McCullough[7,†], Jeffrey B. Schwimmer[8,9,*,†]



adjusted∗ odds ratio for histological features in lifetime non-drinkers and modest drinkers.

Multivariate models adjusted for gender, age, race, income, education BMI, recreational and non-recreational physical activity, smoking, total calories per day, percent calories from carbohydrates and percent calories from fat.