Università degli Studi di Ferrara | Dipartimento di Medicina Traslazionale e per la Romagna

Il consumo di bevande alcoliche: il paradosso del bere responsabile

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•*Vice-Presidente della Società Italiana di Alcologia (SIA)*

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Birra
bicchiere
330 ml

Vino
bicchiere
125 ml

Aperitivo
bicchiere
80 ml

Superalcolico
bicchiere
40 ml

Unità alcolica
(circa 12 grammi di alcol)

1 BICCHIERE = 1 UNITÀ = 12 GRAMMI DI ALCOL

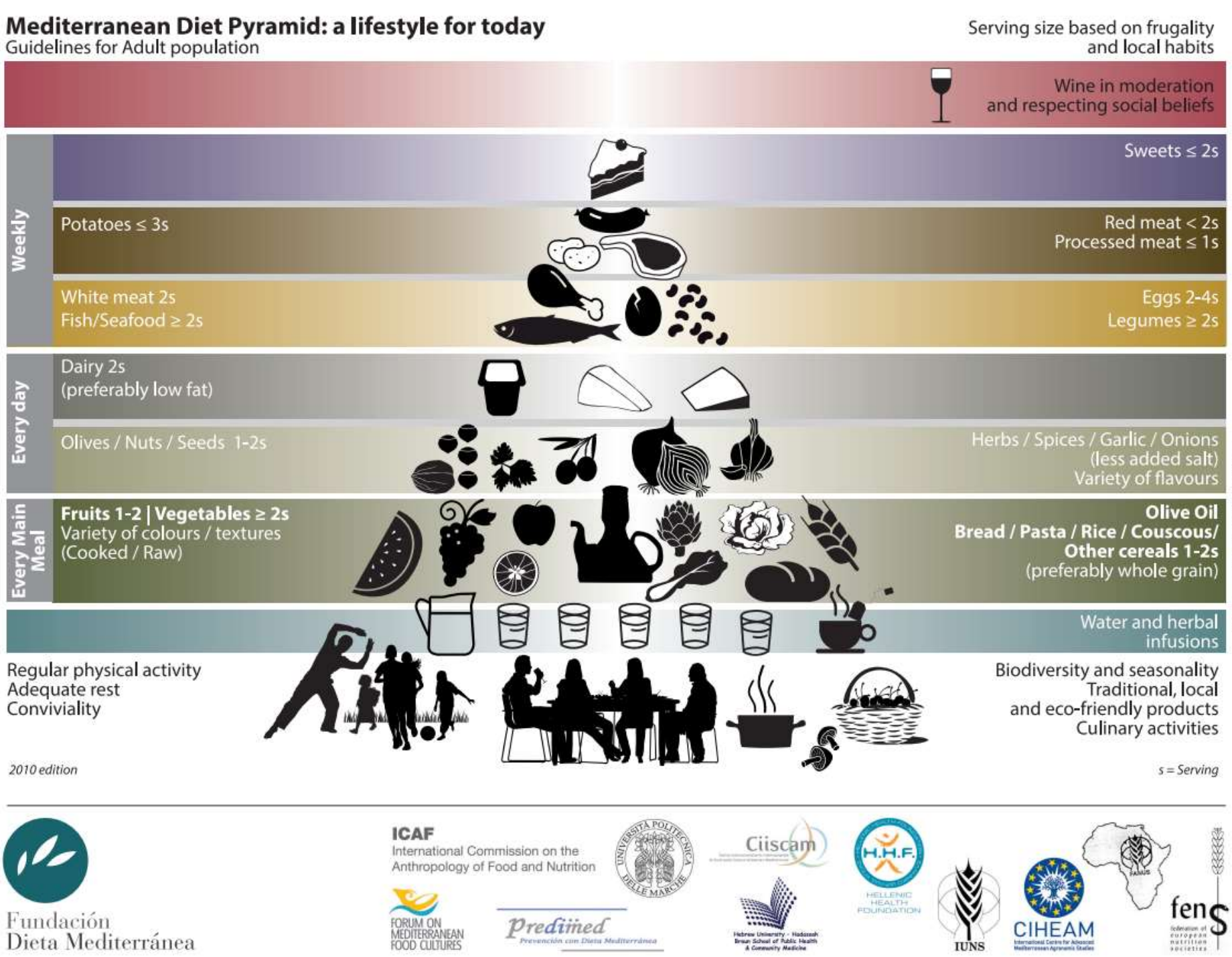
L’etanolo non è un nutriente: occorrono enormi quantità
di bevande alcoliche per ottenere valori significativi
di sostanze bioattive (nutrienti); l’apporto di sostanze nutritive
(come i polifenoli) sono enormemente più elevate in frutta e verdure

Per questo le calorie da bevande alcoliche sono inserite
nelle calorie vuote

L’etanolo ha un elevato potere calorico (7 Kcal/g)

1 unità alcolica = 70-80 Kcal

(Linee Guida per una Sana Alimentazione, CREA, 2018)



(Fundación Dieta Mediterránea, 2021)

-Despite the range of evidence on the potential benefits of resveratrol obtained in model and preclinical studies, attempts have failed to come to clear and consistent outcomes in cohort and clinical trials *(Ren et al., Cancer Let. 2021; Visioli, Pharmacol. Res. 2014).*

-It must also be highlighted that the available studies have been performed using relatively high doses of resveratrol, which are unlikely to be provided by the diet when taking into account the scarcity of food sources and the very low concentrations at which stilbenes are present.

-It does not seem that Mediterranean diets, either with or without wine, can represent further improvements in this sense.

-Thus, it should not be expected that resveratrol may have a relevant contribution to the beneficial health effects associated with Mediterranean diets or any other type of diet.

(Santos-Buelga et al., Molecules, 2019)

no alcohol 0-18 yrs

no alcohol in pregnancy

Low risk drinking

up to 2 drinks/day or up to 4 units per occasion for men
up to 1 drinks/day or up to 3 units per occasion for women
up to 1 unit per day for 18-20 yrs and >65 yrs

Binge drinking

≥5 units for men and ≥4 units for women in about 2 hours

Hazardous drinking

a quantity or pattern of alcohol consumption that places individuals at risk for adverse health events (before driving, during work etc.)

Alcohol Use Disorder (DSM-V)

mild, moderate or severe

Harmful drinking

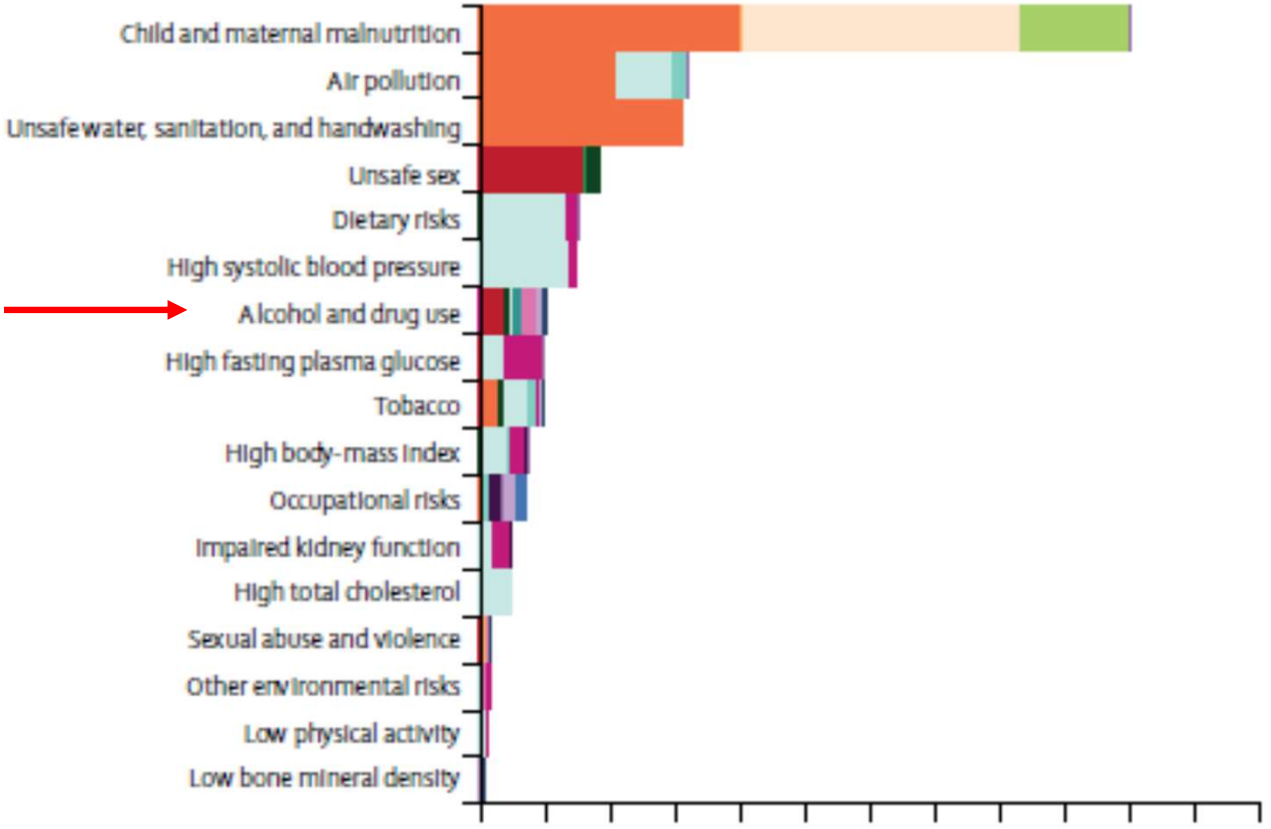
alcohol consumption is causing physical or psychological harm

(World Health Organization, 2015)

Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016

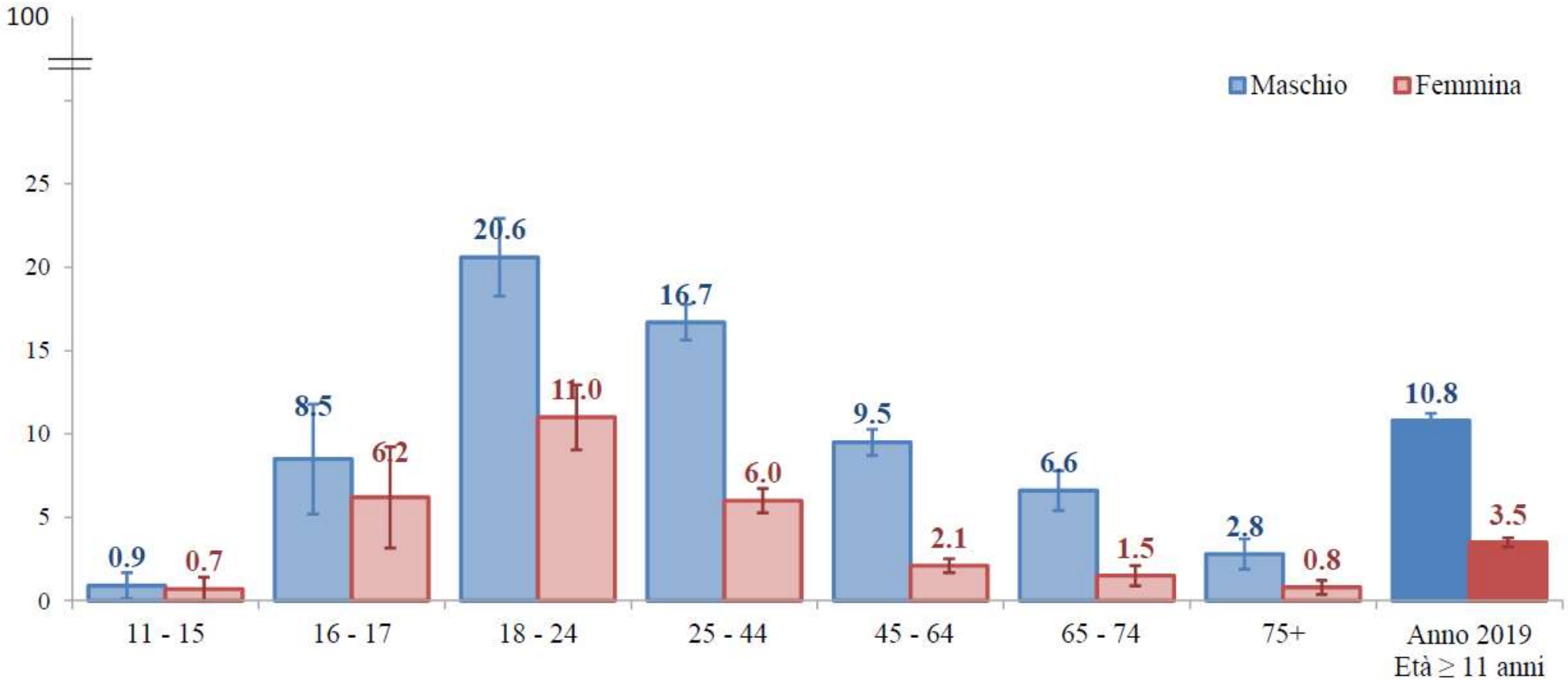
*GBD 2016 Risk Factors Collaborators**

Alcohol Globally represents the seventh-leading risk factor in 2016 in both:
-Disability-adjusted life years (DALYs) (4·2%)
-Deaths (5·2%)



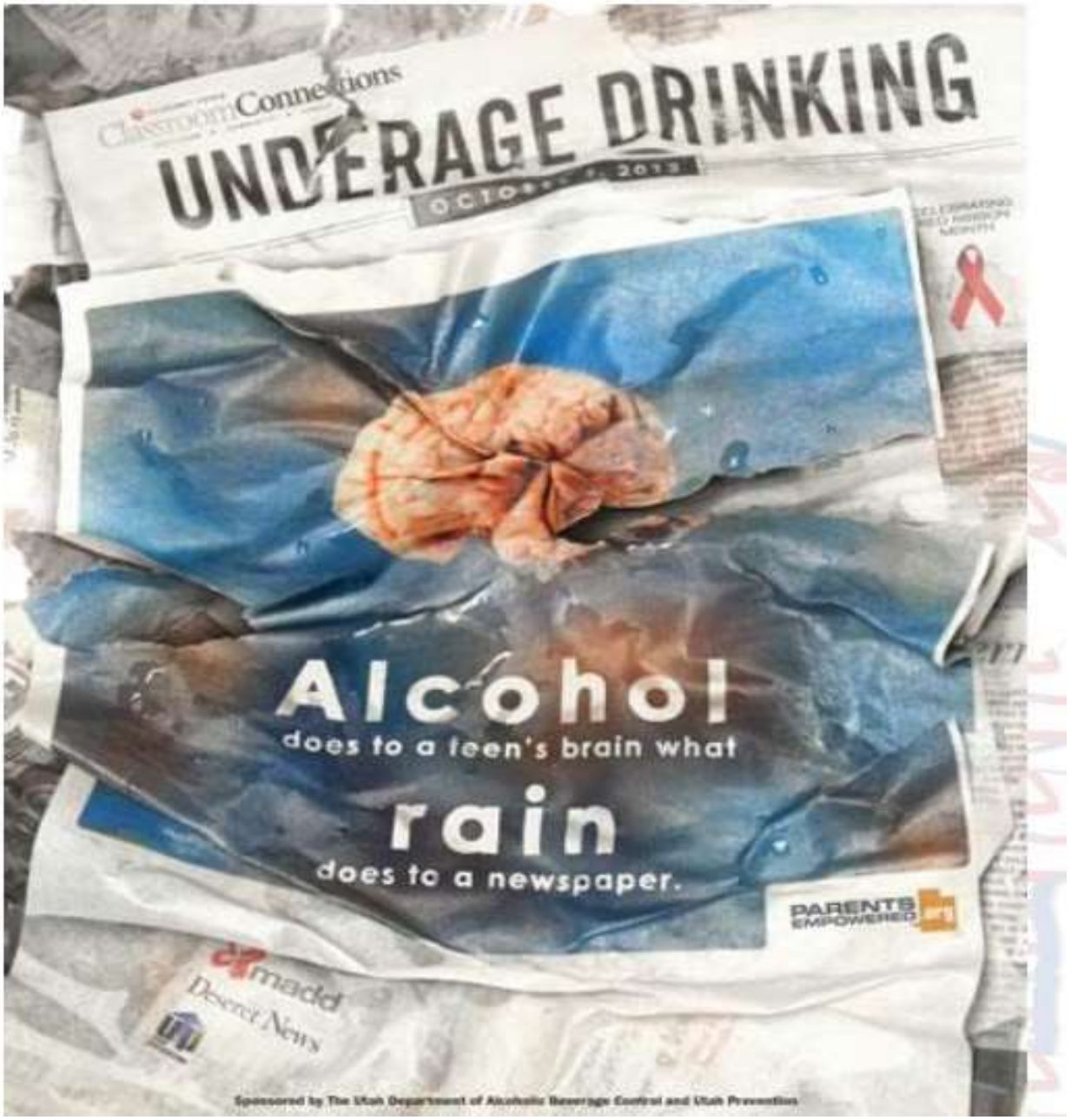
(Gakidou et al, Lancet 2017)

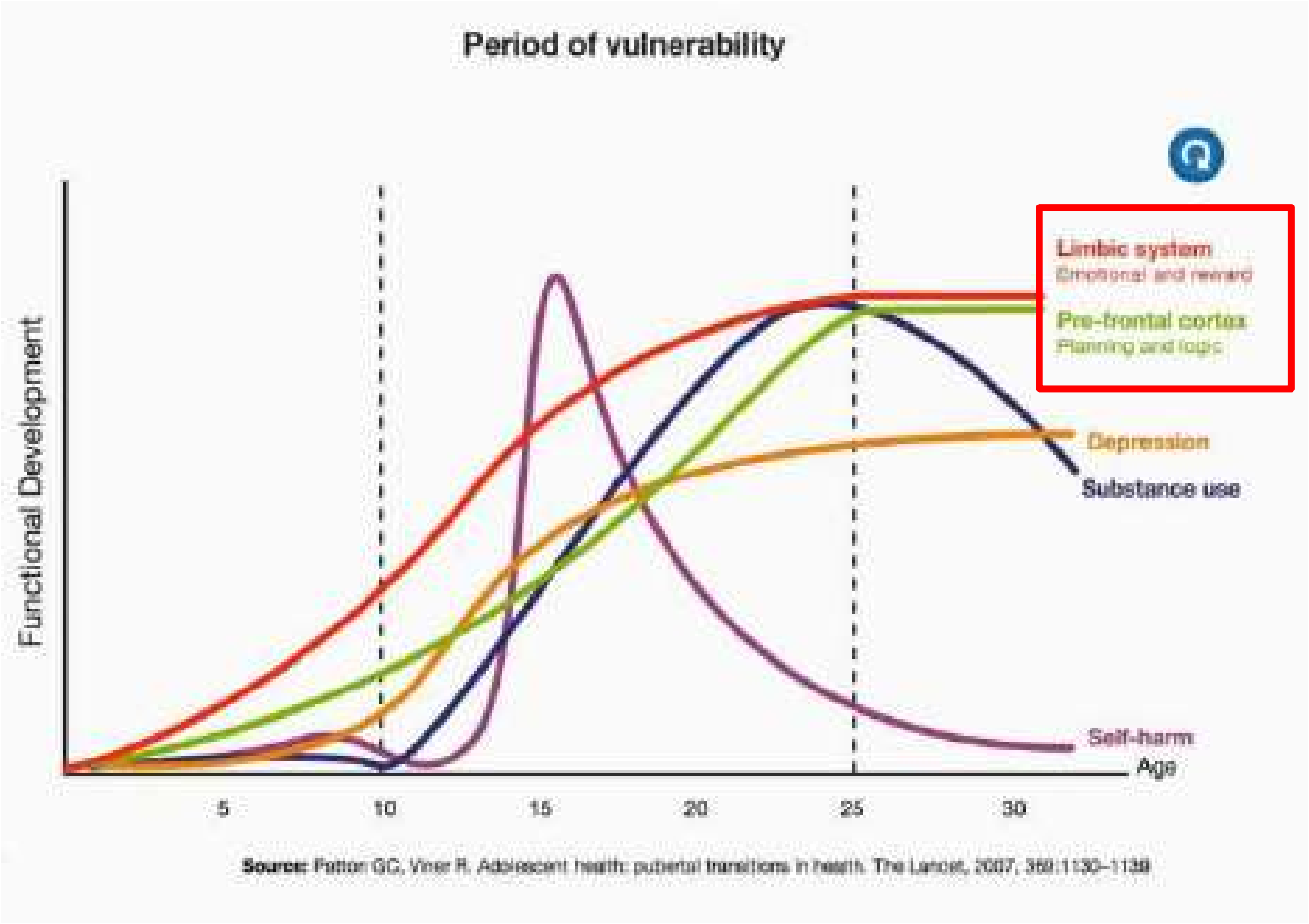
Binge Drinking in Italia



(Istat, 2020)

NEI GIOVANI PIU' TARDI SI INIZIA A BERE E MINORE SARA' IL RISCHIO DI COMPROMISSIONE DEL NORMALE PROCESSO DI SVILUPPO PSICOFISICO


Classroom Connections
UNDERAGE DRINKING
Alcohol
does to a teen's brain what
rain
does to a newspaper.
PARENTS EMPOWERED
madd
Deseret News
Sponsored by The Utah Department of Alcoholic Beverage Control and Utah Prevention

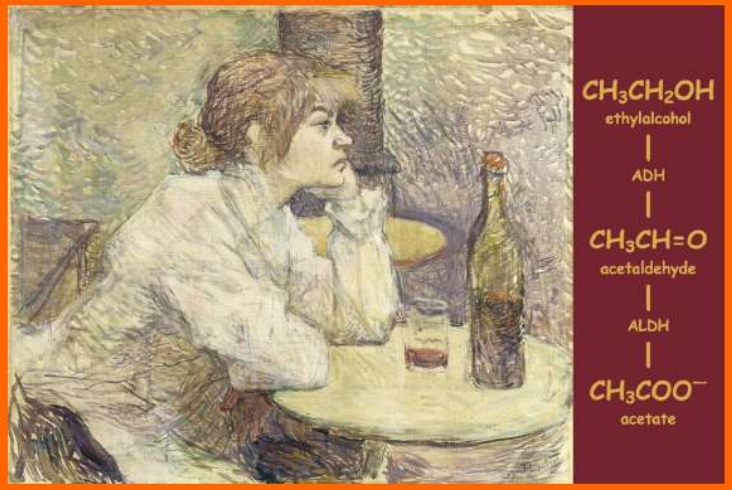

Period of vulnerability
Functional Development
Limbic system
Emotional and reward
Pre-frontal cortex
Planning and logic
Depression
Substance use
Self-harm
Age
5
10
15
20
25
30
Source: Patton GC, Viner R. Adolescent health: pubertal transitions in health. The Lancet, 2007, 369:1130–1139

WORLD HEALTH ORGANIZATION
INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

VOLUME 96

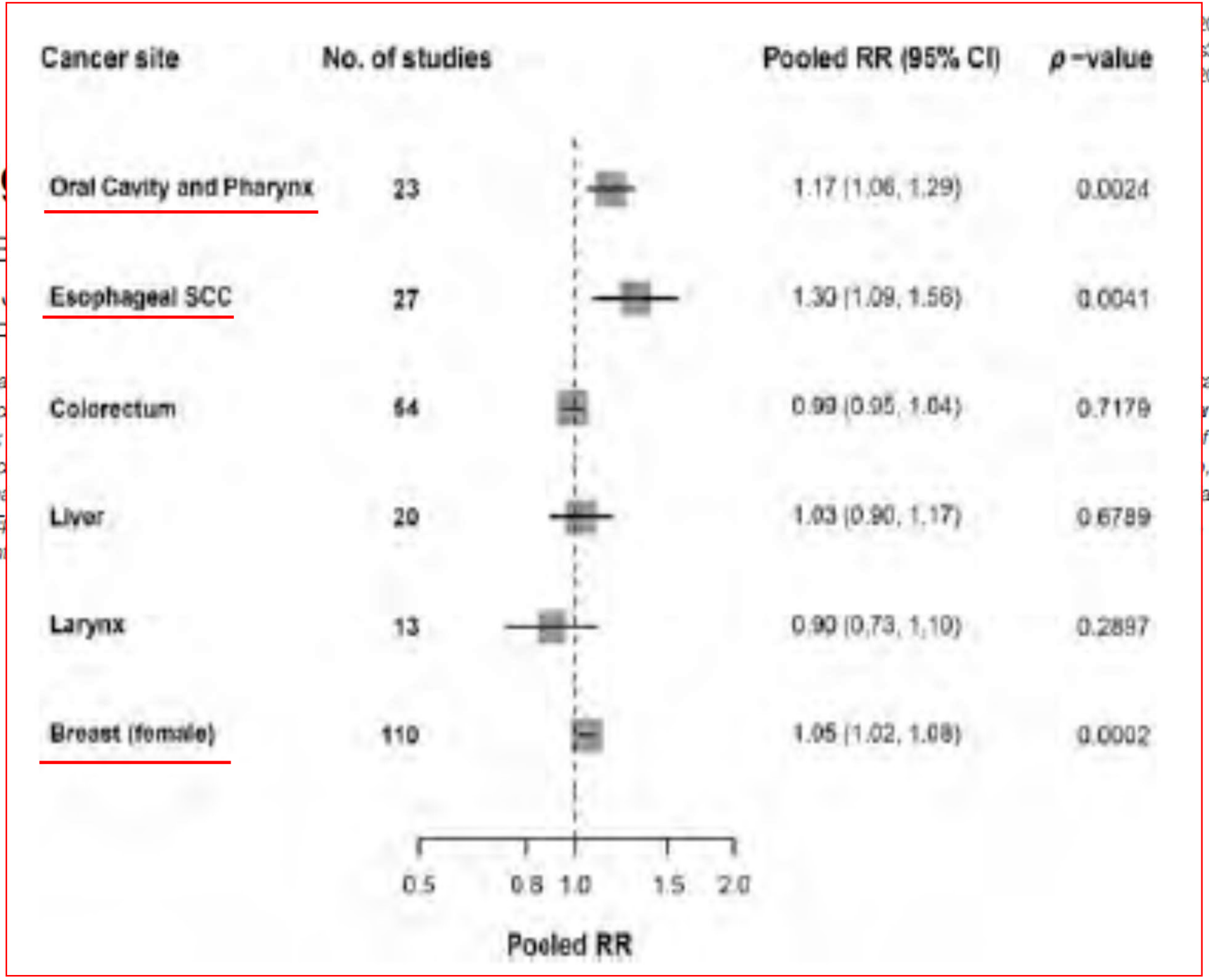
Alcohol Consumption and Ethyl Carbamate



Più bevi, più aumenti il rischio di sviluppare il cancro:
anche a partire da un solo bicchiere.

INFORMATI!

Rivolgiti al tuo medico di fiducia
o ai servizi specialistici e di alcologia.



(Bagnardi et al., Ann Oncol, 2013)

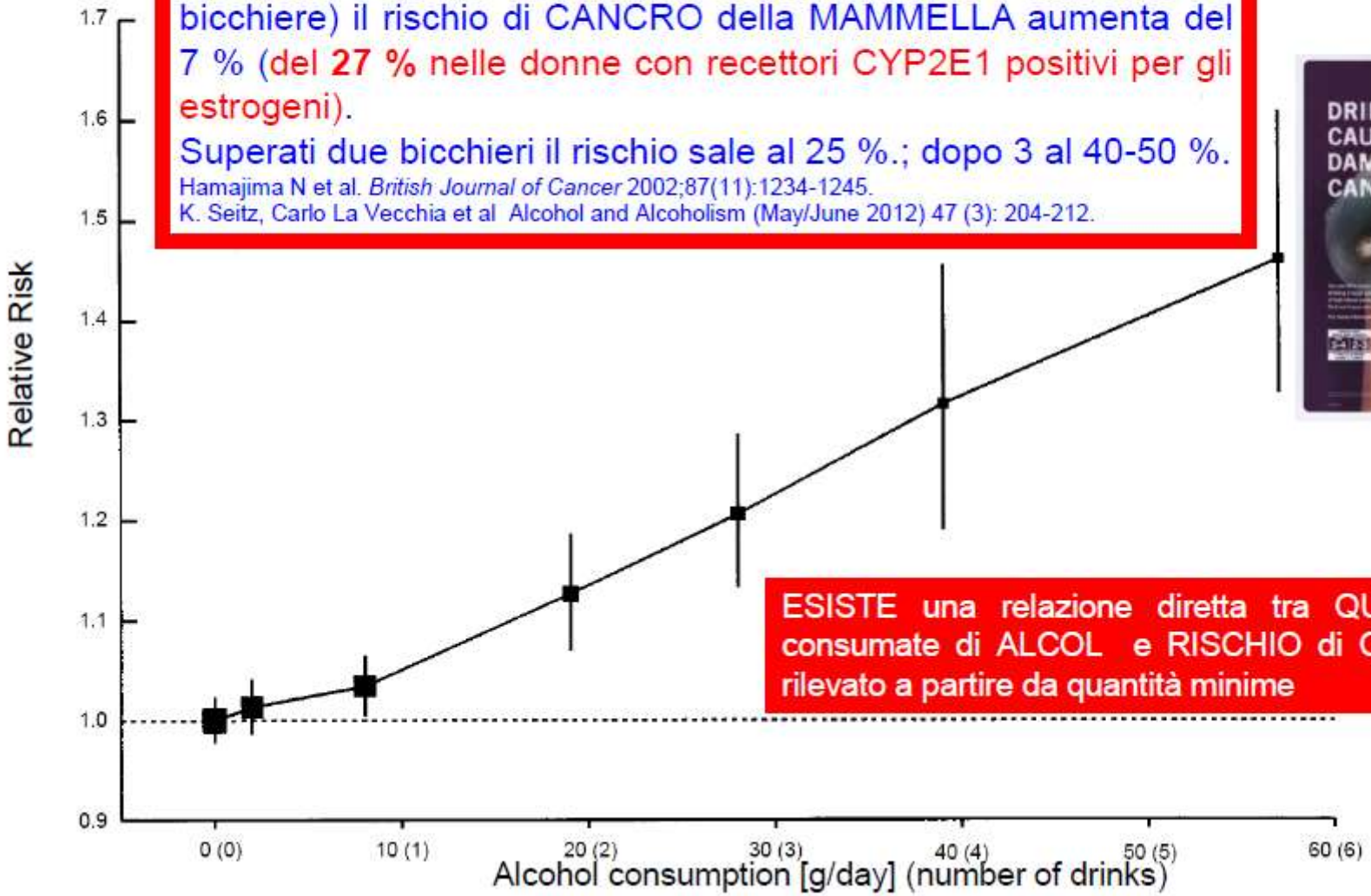
Effetto DOSE-RISPOSTA nel CANCRO della MAMMELLA

Valutazione studio mondiale: 58.515 donne con CANCRO della MAMMELLA e 95.067 controlli

Per ogni 10 grammi di alcol consumati al giorno (meno di un bicchiere) il rischio di CANCRO della MAMMELLA aumenta del 7 % (del **27 %** nelle donne con recettori CYP2E1 positivi per gli estrogeni).

Superati due bicchieri il rischio sale al 25 %.; dopo 3 al 40-50 %.

Hamajima N et al. *British Journal of Cancer* 2002;87(11):1234-1245.
K. Seitz, Carlo La Vecchia et al Alcohol and Alcoholism (May/June 2012) 47 (3): 204-212.



ESISTE una relazione diretta tra QUANTITA' consumate di ALCOL e RISCHIO di CANCRO rilevato a partire da quantità minime

Alcohol-Attributable Cancer Deaths and Years of Potential Life Lost in the United States

David E. Nelson, MD, MPH, Dwayne W. Jarman, DVM, MPH, Jürgen Rehm, PhD, Thomas K. Greenfield, PhD, Grégoire Rey, PhD, William C. Kerr, PhD, Paige Miller, PhD, MPH, Kevin D. Shield, MHSc, Yu Ye, MA, and Timothy S. Naimi, MD, MPH

Conclusions. Alcohol remains a major contributor to cancer mortality and YPLL. Higher consumption increases risk but there is no safe threshold for alcohol and cancer risk. Reducing alcohol consumption is an important and underemphasized cancer prevention strategy. (*Am J Public Health.* Published online ahead of print February 14, 2013: e1–e8. doi:10.2105/AJPH.2012.301199)

Global burden of cancer in 2020 attributable to alcohol consumption: a population-based study

Harriet Rumgay, Kevin Shield, Hadrien Charvat, Pietro Ferrari, Bundit Sornpaisarn, Isidore Obot, Farhad Islami, Valery E P P Lemmens, Jürgen Rehm, Isabelle Soerjomataram

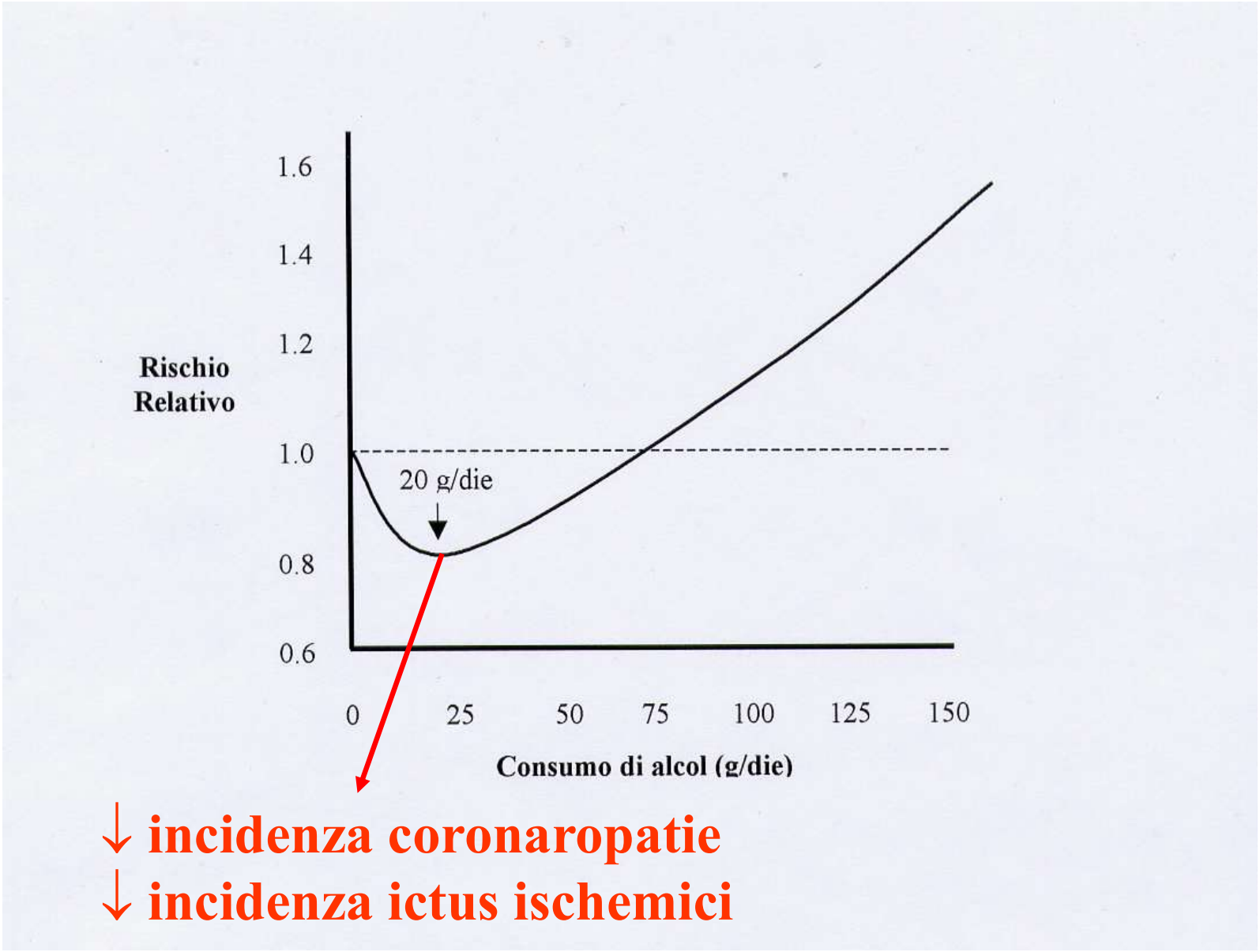
An estimated 741 300 (**4·1%**) of all new cases of cancer in 2020 were attributable to alcohol consumption.

Males accounted for 76·7% of total alcohol-attributable cancer cases, and cancers of the oesophagus, liver, and breast contributed the most cases.

The largest burden of alcohol-attributable cancers:
-heavy drinking (>60 g/day) (46·7%)
-risky drinking (20-60 g/day) (39·4%)
-moderate drinking (<20 g/day) (13·9%)
-drinking up to 10 g per day (5.5%)

(*Rumgay et al., Lancet Oncol, 2021)*

Alcol e A. Cardiovascolare



↓ incidenza coronaropatie

↓ incidenza ictus ischemici

(adattata da: Corrao G et al, Addiction, 2000)

Population-level risks of alcohol consumption by amount, geography, age, sex, and year: a systematic analysis for the Global Burden of Disease Study 2020

GBD 2020 Alcohol Collaborators*

Summary

Background The health risks associated with moderate alcohol consumption continue to be debated. Small amounts of alcohol might lower the risk of some health outcomes but increase the risk of others, suggesting that the overall risk depends, in part, on background disease rates, which vary by region, age, sex, and year.

Methods For this analysis, we constructed burden-weighted dose–response relative risk curves across 22 health outcomes to estimate the theoretical minimum risk exposure level (TMREL) and non-drinker equivalence (NDE), the consumption level at which the health risk is equivalent to that of a non-drinker, using disease rates from the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2020 for 21 regions, including 204 countries and territories, by 5-year age group, sex, and year for individuals aged 15–95 years and older from 1990 to 2020. Based on the NDE, we quantified the population consuming harmful amounts of alcohol.

Findings The burden-weighted relative risk curves for alcohol use varied by region and age. Among individuals aged 15–39 years in 2020, the TMREL varied between 0 (95% uncertainty interval 0–0) and 0·603 (0·400–1·00) standard drinks per day, and the NDE varied between 0·002 (0–0) and 1·75 (0·698–4·30) standard drinks per day. Among individuals aged 40 years and older, the burden-weighted relative risk curve was J-shaped for all regions, with a 2020 TMREL that ranged from 0·114 (0–0·403) to 1·87 (0·500–3·30) standard drinks per day and an NDE that ranged between 0·193 (0–0·900) and 6·94 (3·40–8·30) standard drinks per day. Among individuals consuming harmful amounts of alcohol in 2020, 59·1% (54·3–65·4) were aged 15–39 years and 76·9% (73·0–81·3) were male.

Interpretation There is strong evidence to support recommendations on alcohol consumption varying by age and location. Stronger interventions, particularly those tailored towards younger individuals, are needed to reduce the substantial global health loss attributable to alcohol.

Lancet 2022; 400: 185–235

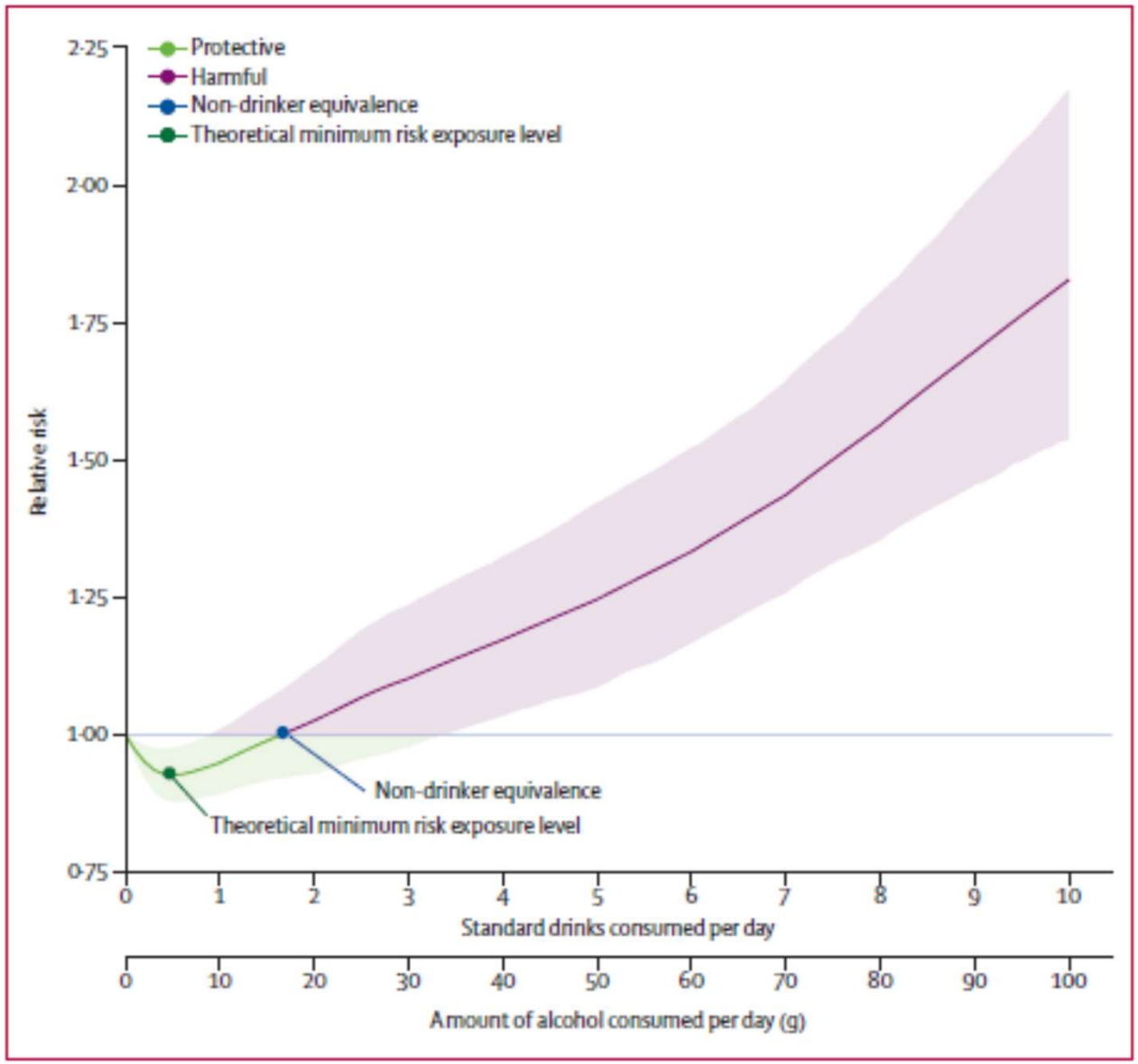
See Comment page 141

*Collaborators are listed at the end of the Article

Correspondence to:
Prof Emmanuela Gakidou, Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA 98195 USA
gakidou@uw.edu

(GBD 2020 Alcohol Collaborators, Lancet, 2022)

Exemplifying a weighted all-attributable cause alcohol relative risk curve



Points mark the theoretical minimum risk exposure level and non-drinker equivalence level. The shaded areas denote consumption levels with a **lower risk (green)** and **greater risk (purple),** compared to no consumption.

(GBD 2020 Alcohol Collaborators, Lancet, 2022)

ADDICTION

SSA SOCIETY FOR THE STUDY OF ADDICTION

RESEARCH REPORT

doi:10.1111/add.15593

Alcohol intake and total mortality in 142 960 individuals from the MORGAM Project: a population-based study

Augusto Di Castelnuovo[1], Simona Costanzo[2], Marialaura Bonaccio[2], Patrick McElduff[3], Allan Linneberg[4], Veikko Salomaa[5], Satu Männistö[5], Marie Moitry[6], Jean Ferrières[7], Jean Dallongeville[8], Barbara Thorand[9], Hermann Brenner[10], Marco Ferrario[11], Giovanni Veronesi[11], Emanuela Pettenuzzo[11], Abdonas Tamosiunas[12], Inger Njølstad[13], Wojciech Drygas[14], Yuri Nikitin[15], Stefan Söderberg[16], Frank Kee[17], Guido Grassi[18], Dirk Westermann[19], Benedikt Schrage[19], Salim Dabboura[19], Tanja Zeller[19], Kari Kuulasmaa[5], Stefan Blankenberg[19], Maria Benedetta Donati[2], Giovanni de Gaetano[2] & Licia Iacoviello[2,11]

An average consumption of 5 g/day corresponds to nearly three drinks per week; accordingly, we found that drinking up to 2 days per week is the only habit associated with a reduction in mortality (but not for cancer).

(Di Castelnuovo et al., Addiction, 2022)

nutrients

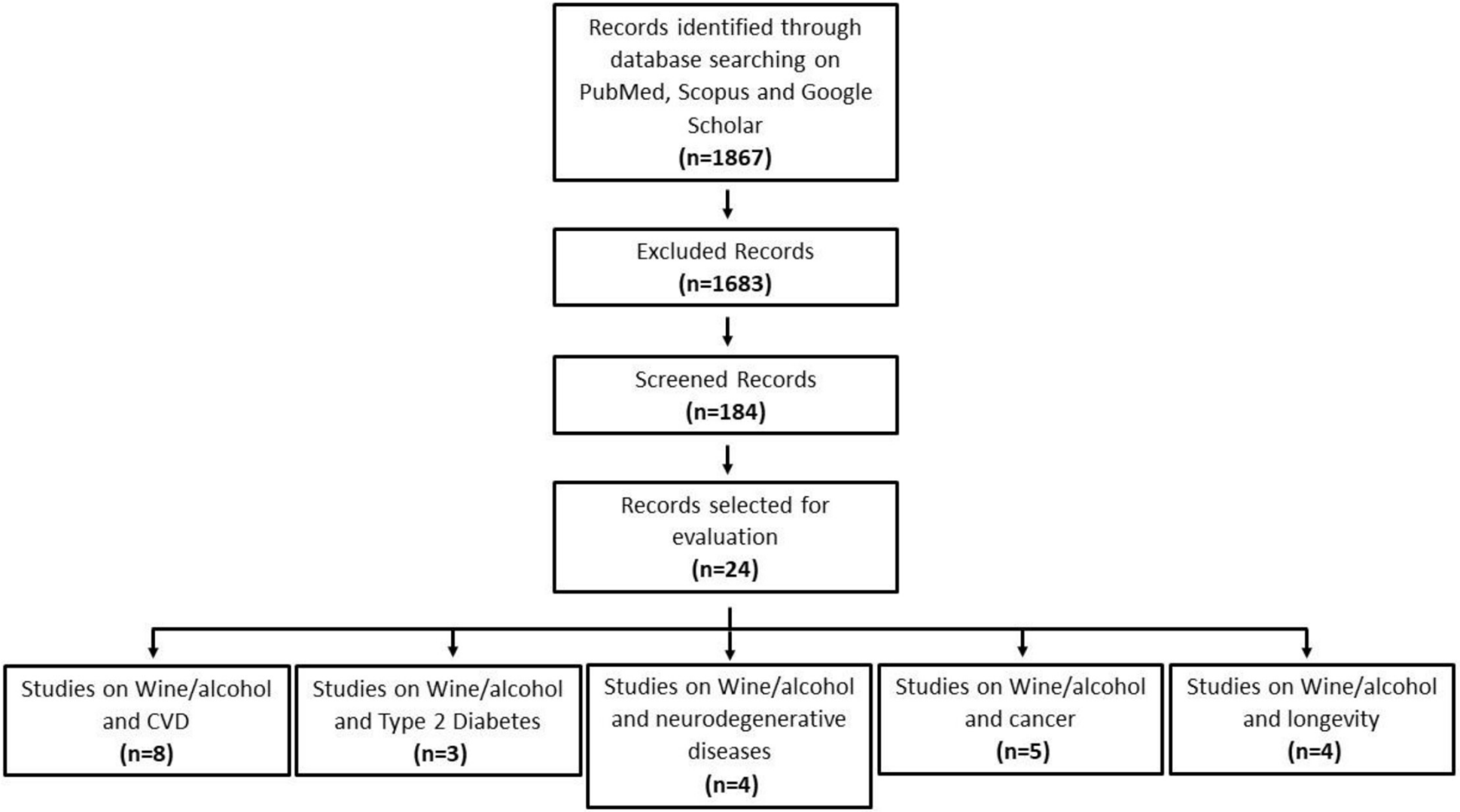
MDPI

Review

Moderate Wine Consumption and Health: A Narrative Review

Silvana Hrelia [1], Laura Di Renzo [2], Luigi Bavaresco [3], Elisabetta Bernardi [4], Marco Malaguti [1,*] and Attilio Giacosa [5]

The analysis clearly indicates that wine differs from other alcoholic beverages and its moderate consumption not only does not increase the risk of chronic degenerative diseases but is also associated with health benefits particularly when included in a Mediterranean diet model.



(Hrelia et al., Nutrition, 2022)

Wine/Alcohol Consumption and Cancer	Number of Subjects	Study Design	References
In comparison with life-time abstainers, consumption of alcohol less than 10 g/day was associated with an average 11% [95% confidence interval (CI) = 7–14%] reduction in the risk of total mortality, while intake > 20 g/day was associated with a 13% (95% CI = 7–20%) increase in the risk of total mortality. With regard to cancer, drinking up to 10 g/day was not associated with either mortality risk reduction or increase, while alcohol intake > 20 g/day was associated with a 22% (95% CI = 10–35%) increased risk of mortality.	142,960 individuals (mean age 50 ± 13 years, 53.9% men)	Prospective observational multicenter population-based study	Di Castelnuovo et al., 2022 [133]
Compared to a Mediterranean diet score (MDS) of 0–3, the ORs for breast cancer were 0.86 (95% confidence interval, CI, 0.76–0.98) for a MDS of 4–5 and 0.82 (95% CI, 0.71–0.95) for a MDS of 6–9 (p for trend = 0.008). The exclusion of the ethanol component (mostly from wine) from the MDS did not materially modify the ORs (e.g., OR = 0.81, 95% CI, 0.70–0.95, for MDS ≥ 6).	3034 breast cancer cases and 3392 controls	Hospital-based case–control study	Turatti et al., 2018 [135]
Using men who did not consume red wine as the reference, no linear trend was observed between red wine consumption and prostate cancer in the full analytic cohort (p-trend = 0.57).	3348 cases of prostate cancer diagnosed among 45,433 eligible participants	Prospective cohort study	Sutcliffe et al., 2007 [132]
An inverse association between moderate red wine intake and risk of CRC was not found. The hazard ratio for consuming ≥ 1 drink /day (average = 2 drinks/day) was 1.16, 95% confidence intervals 0.56–2.40. There was no linear dose-response.	176 colorectal cancer patients diagnosed among 43,483 participants	Prospective cohort study	Chao et al., 2010 [131]
There was no clear association between lung cancer and consumption of beer, red wine, white wine or liquor at ≥1 drink/day. Alcohol intake at age 30 was not associated with lung cancer risk.	580 lung cancer cases diagnosed among 66,186 participants	Prospective cohort study	Chao et al., 2011 [130]

(Hrelia et al., Nutrition, 2022)

Health and cancer risks associated with low levels of alcohol consumption

No studies have shown that the potential existence of a protective effect for cardiovascular diseases or type 2 diabetes also reduces the risk of cancer for an individual consumer.

Evidence does not indicate the existence of a particular threshold at which the carcinogenic effects of alcohol start to manifest in the human body. As such, no safe amount of alcohol consumption for cancers and health can be established.

Alcohol consumers should be objectively informed about the risks of cancer and other health conditions associated with alcohol consumption.

(Anderson et al., Lancet Public Health, 2022)

JAMA Network Open

Original Investigation | Substance Use and Addiction

Association Between Daily Alcohol Intake and Risk of All-Cause Mortality
A Systematic Review and Meta-analyses

Jinhui Zhao, PhD; Tim Stockwell, PhD; Tim Naimi, MD; Sam Churchill, MSc; James Clay, MSc; Adam Sherk, PhD

There were 724 risk estimates of all-cause mortality due to alcohol intake from the 107 cohort studies (4 838 825 participants and 425 564 deaths available) for the analysis. In models adjusting for potential confounding effects of sampling variation, former drinker bias, and other pre specified study-level quality criteria, the meta-analysis of all 107 included studies found no significantly reduced risk of all-cause mortality among occasional (>0 to <1.3 g of ethanol per day; relative risk [RR], 0.96; 95%CI, 0.86-1.06; P = .41) or low-volume drinkers (1.3-24.0 g per day; RR, 0.93; P = .07) compared with lifetime nondrinkers.

(Zhao et al., JAMA Network Open, 2023)

Conclusioni

Le bevande alcoliche non sono nutrienti

L'alcol è una sostanza cancerogena

Non assumere alcol prima dei 18 anni di età

Non assumere alcol in gravidanza

Se decidi di assumere alcol non superare le quantità a basso rischio:
- 2 UA al dì (uomo adulto)
- 1 UA al dì (donna adulta e anziani)

Attenzione interazioni farmacologiche

Minor rischio pari a 5 g/die (effetto protettivo?): le linee di raccomandazione internazionali andrebbero riviste probabilmente indirizzandosi verso un uso occasionale e moderato (2-3 UA a settimana: vedi nuove linee guida Canadesi)

Grazie per l'attenzione!