ALCOHOL PREVENTION DAY

12 aprile 2017

MESE DI PREVENZIONE ALCOLOGICA

organizzato da
ISTITUTO SUPERIORE DI SANITA'
Osservatorio Nazionale Alcol
Centro Nazionale Dipendenze e Doping

WHO Collaborating Centre
for Research and Health Promotion on Alcohol and Alcohol-related health problems

Con il contributo del
Ministero della Salute

In collaborazione con:
Società Italiana di Alcologia - SIA
Associazione Italiana Club Alcologici Territoriali - AICAT
Eurocare Italia

ALCOL E GIOVANI: educare alla salute, intervenire sugli stili di vita

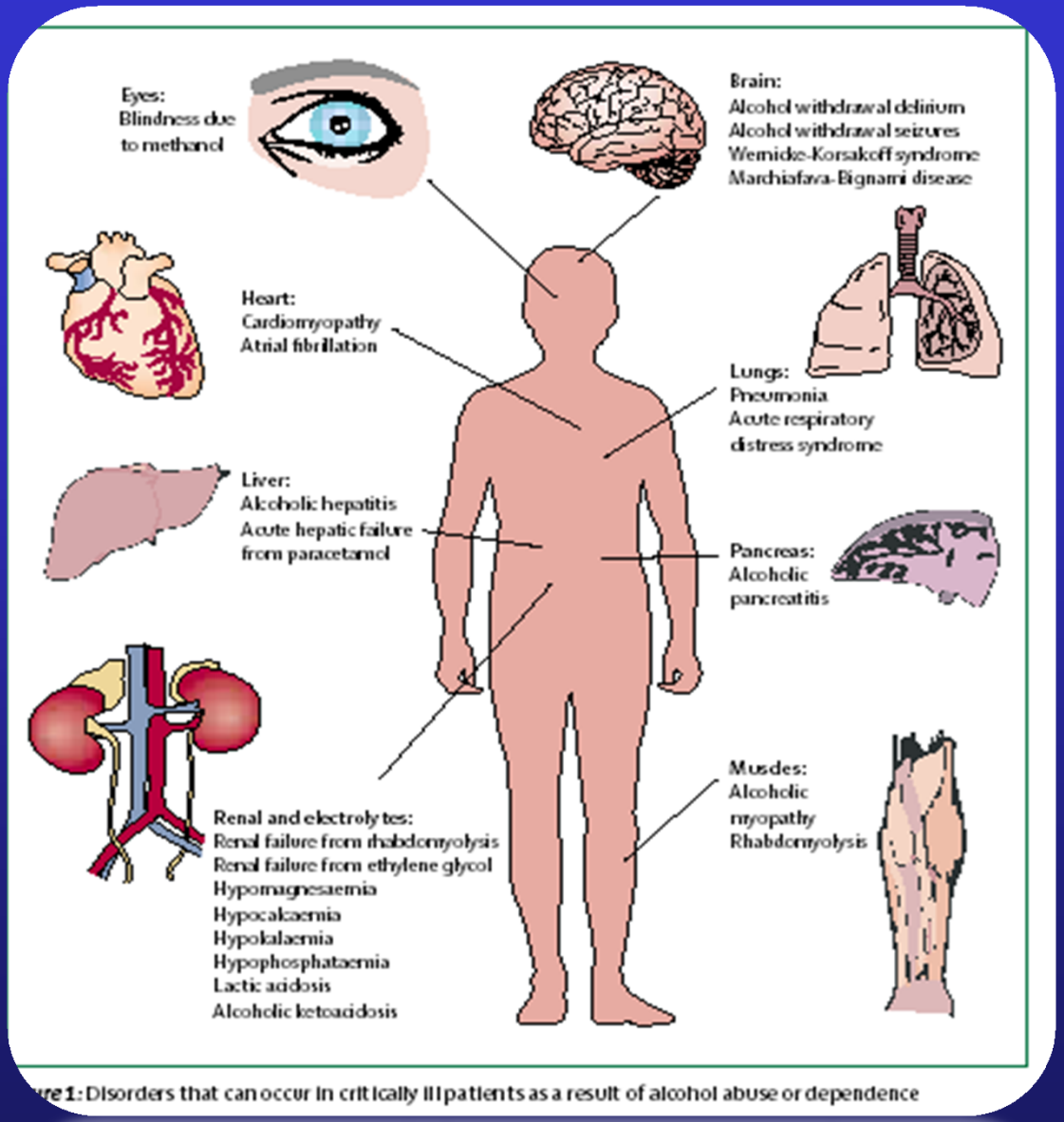
Gianni Testino
Centro Alcologico Regionale – Regione Liguria
ASL3 Genovese/ IRCCS AOU San Martino-IST, Genova

ASSOCIAZIONE ITALIANA PER LO STUDIO DEL FEGATO (www.webaisf.org)

LE 10 REGOLE d'ORO

3) Modera il consumo di alcolici

Non esagerare con gli alcolici: *un bicchiere di vino o birra a pasto non pone problemi*, salvo restrizioni in caso di malattie del fegato. Ma non assumere mai assieme alcolici e farmaci, la loro combinazione può essere molto tossica per il fegato.



re 1: Disorders that can occur in critically ill patients as a result of alcohol abuse or dependence

Neoplasie ?

Altre Patologie Associate?

Familiarita'?

Dipendenze?

Moss M. and Burnham E. L., The Lancet 2006

QUALE VERITA' VOLETE ?

La vostra verita' ?

Una verita' rassicurante ?

La verita' correlata a tradizioni confuse con la cultura?

Verita' riducibile all'esattezza ?

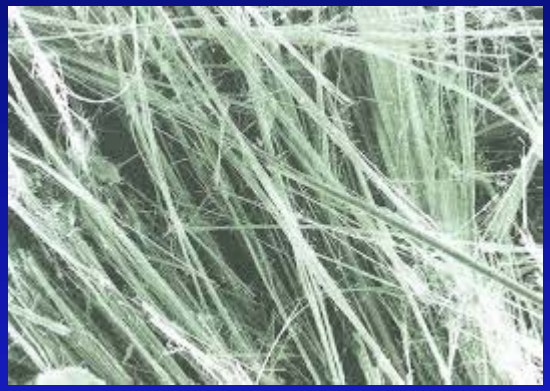
La verita' «autentica» ?

V. Mancuso, 2016

Il bene sta sempre nell'agire moderatamente ?

Moderatamente ?
<u>Per gli alimenti SI !</u>

ASBESTO



Gruppo 1 – Sostanze Cancerogene
IARC-WHO
Rapporto Causale Certo con il Cancro nell'uomo

Moderatamente ?
<u>Per i tossici NO!</u>

Agents Classified by the *IARC Monographs*, Volumes 1–104

CAS No	Agent	Group	Volume	Year
000075-07-0	Acetaldehyde associated with consumption of alcoholic beverages	1	100E	2012
	Acid mists, strong inorganic	1	54, 100F	2012
001402-68-2	Aflatoxins	1	56, 82, 100F	2012
	Alcoholic beverages	1	44, 96, 100E	2012
	Aluminium production	1	34, Sup 7, 100F	2012
000092-67-1	4-Aminobiphenyl	1	1, Sup 7, 99, 100F	2012
	Areca nut	1	85, 100E	2012
000313-67-7	Aristolochic acid (NB: Overall evaluation upgraded to Group 1 based on mechanistic and other relevant data)	1	82, 100A	2012
000313-67-7	Aristolochic acid, plants containing	1	82, 100A	2012
007440-38-2	Arsenic and inorganic arsenic compounds	1	23, Sup 7, 100C	2012
000064-17-5	Ethanol in alcoholic beverages	1	96, 100E	2012
000075-21-8	Ethylene oxide (NB: Overall evaluation upgraded to Group 1 based on mechanistic and other relevant data)	1	97, 100F	2012
033419-42-0	Etoposide (NB: Overall evaluation upgraded to Group 1 based on mechanistic and other relevant data)	1	76, 100A	2012
033419-42-0 015663-27-1 011056-06-7	Etoposide in combination with cisplatin and bleomycin	1	76, 100A	2012
	Fission products, including strontium-90	1	100D	2012
000050-00-0	Formaldehyde	1	88, 100F	2012

OMS, IARC 2012

There is *sufficient evidence* in humans for the carcinogenicity of alcohol consumption. Alcohol consumption causes cancers of the oral cavity, pharynx, larynx, oesophagus, colorectum, liver (hepatocellular carcinoma) and female breast. Also, an association has been observed between alcohol consumption and cancer of the pancreas.

For cancer of the kidney and non-Hodgkin lymphoma, there is *evidence suggesting lack of carcinogenicity.*

There is *sufficient evidence* in humans for the carcinogenicity of acetaldehyde associated with the consumption of alcoholic beverages. Acetaldehyde associated with the consumption of alcoholic beverages causes cancer of the oesophagus and of the upper aerodigestive tract combined.

There is *sufficient evidence* in experimental animals for the carcinogenicity of ethanol.

There is *sufficient evidence* in experimental animals for the carcinogenicity of acetaldehyde.

Alcohol consumption is *carcinogenic to humans (Group 1).*

Ethanol in alcoholic beverages is *carcinogenic to humans (Group 1).*

Acetaldehyde associated with the consumption of alcoholic beverages is *carcinogenic to humans (Group 1).*

World Health Organization, International Agency for Cancer Research,

Volume 100 E, pag. 476 – Lyon, France 2012

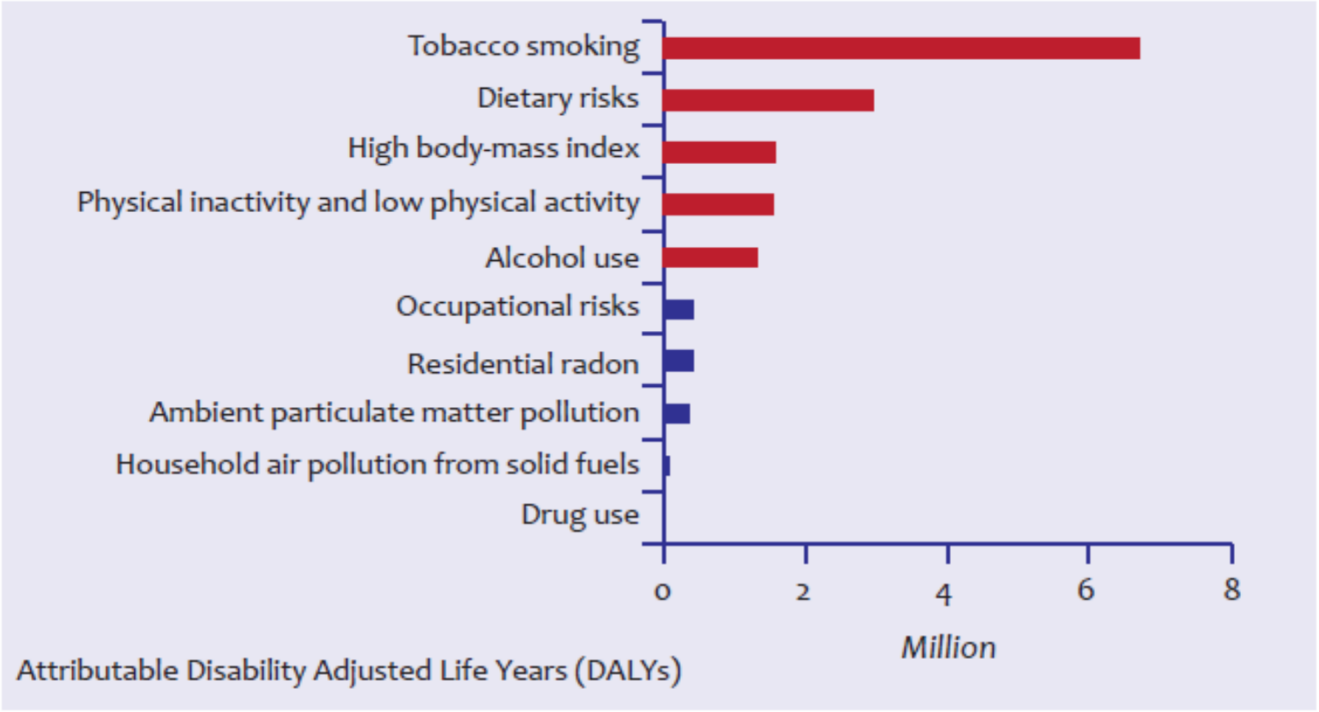
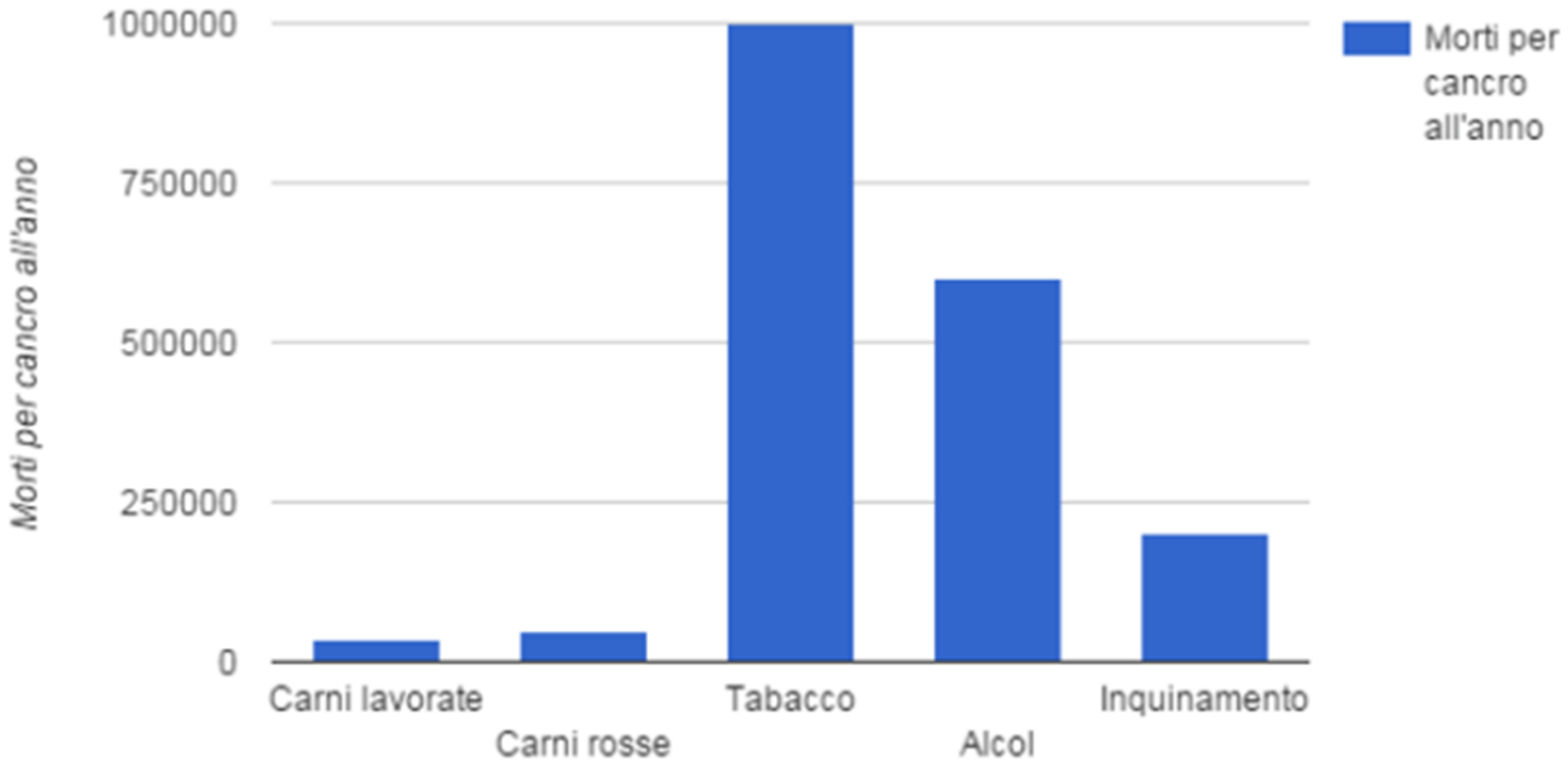


Figure 1 - Contribution of Lifestyle Risk Factors to thwe Burden of Cancer in Europe

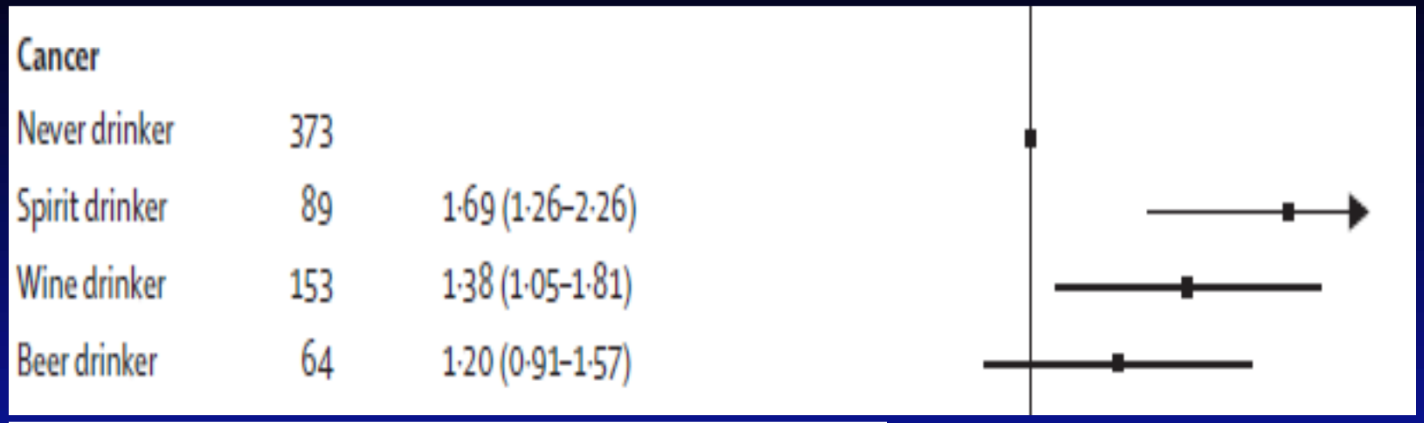
Source: OECD elaboration of IHME Global Burden of Disease Data for EU and EFTA area, 2010

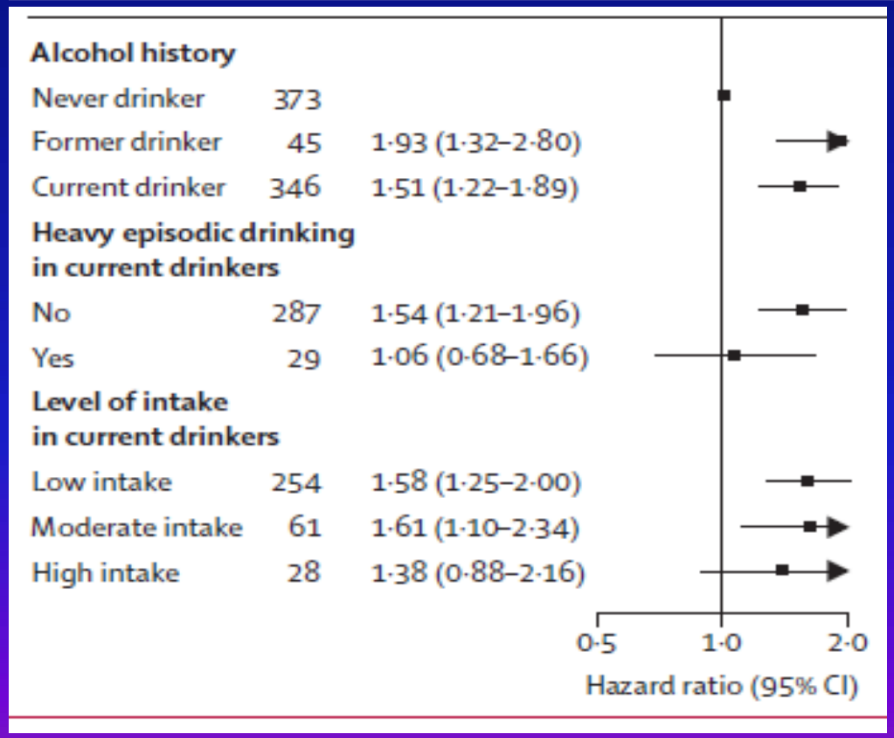
Salmaso et al; Istituto Superiore di Sanita', 2014



e stime del Global Burden of Disease Project sulla relazione tra casi di morte per cancro ed esposizione a certe ostanze o fattori ambientali

ALCOHOL AND CANCER





Smyth et al, Lancet 2015
Rehm, BMJ 2015
Cao et al, BMJ 2015

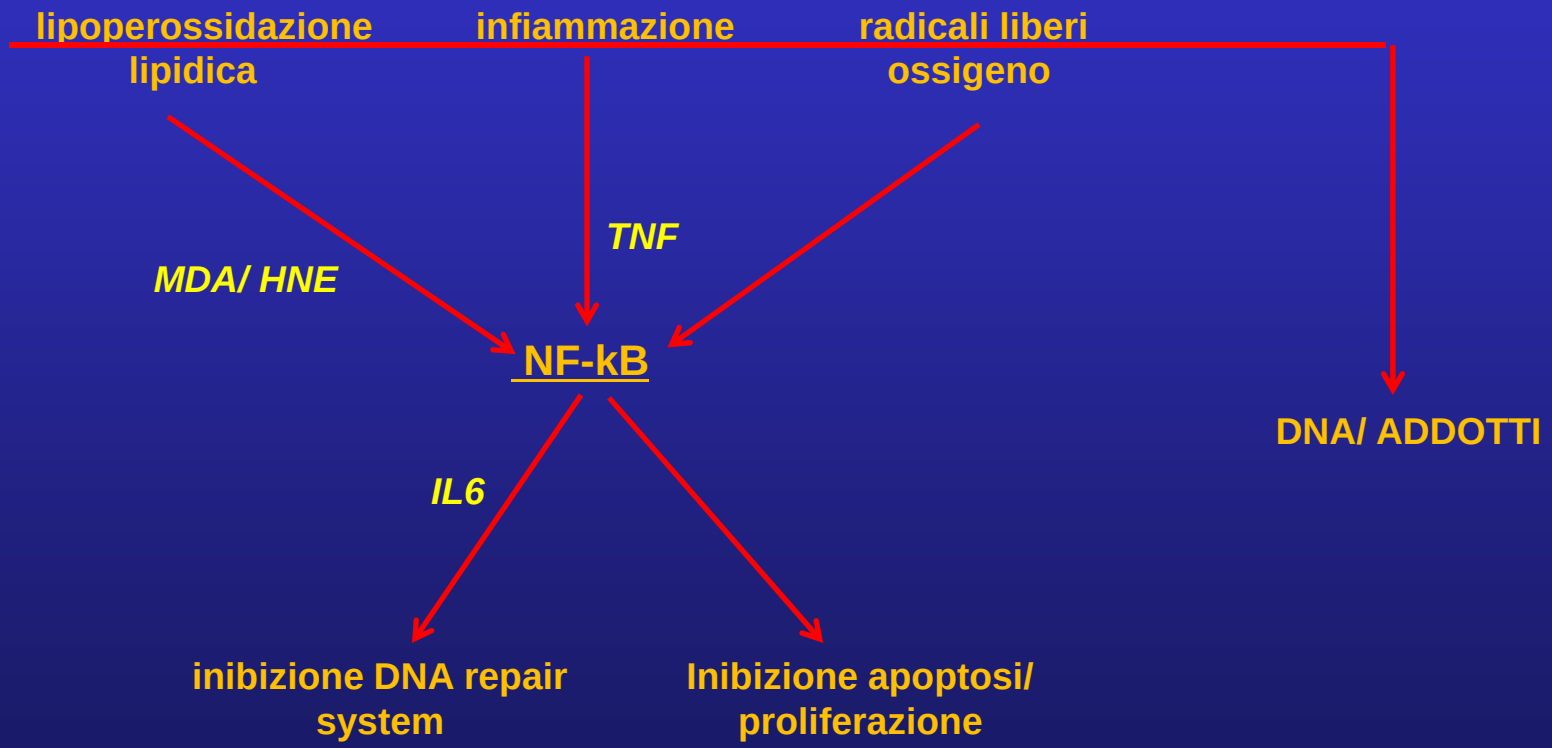
TOBACCO, ALCOHOL AND CANCER

Tobacco	Tobacco/ Alcohol	Alcohol
Nasopharynx	Head	Breast
Lung	Oral Cavity	Galbladder
Stomach	Pharynx	Prostate
Kidney	Larynx	Melanoma
Bladder	Esophagus	
Cervix	Colorectum	
Leukemia	Liver	
	Pancreas	
	Lung (Alcohol ?)	

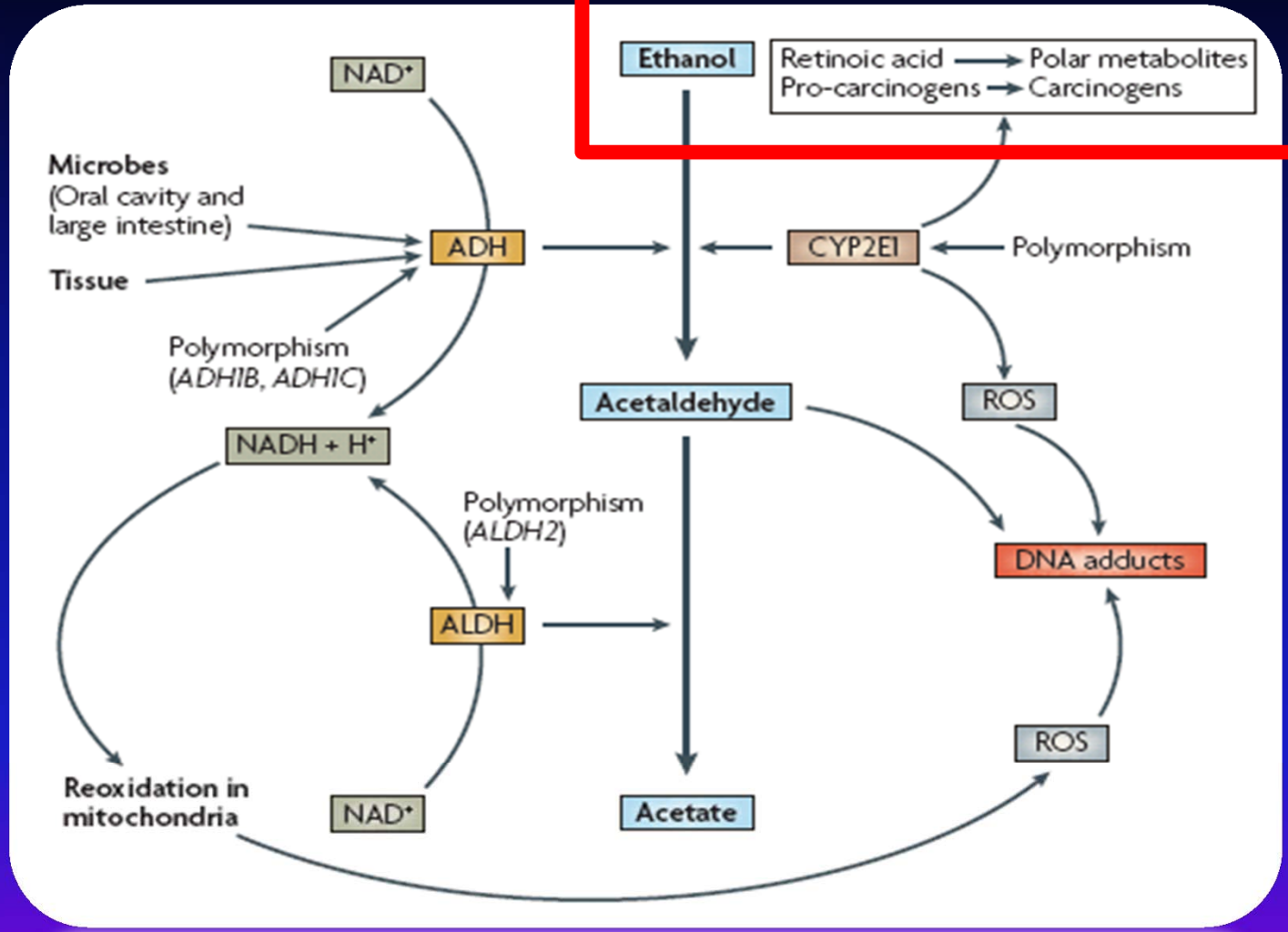
Chin et al, Ann Global Health 2014
Praud et al, Int J Cancer 2016

CANCEROGENESI

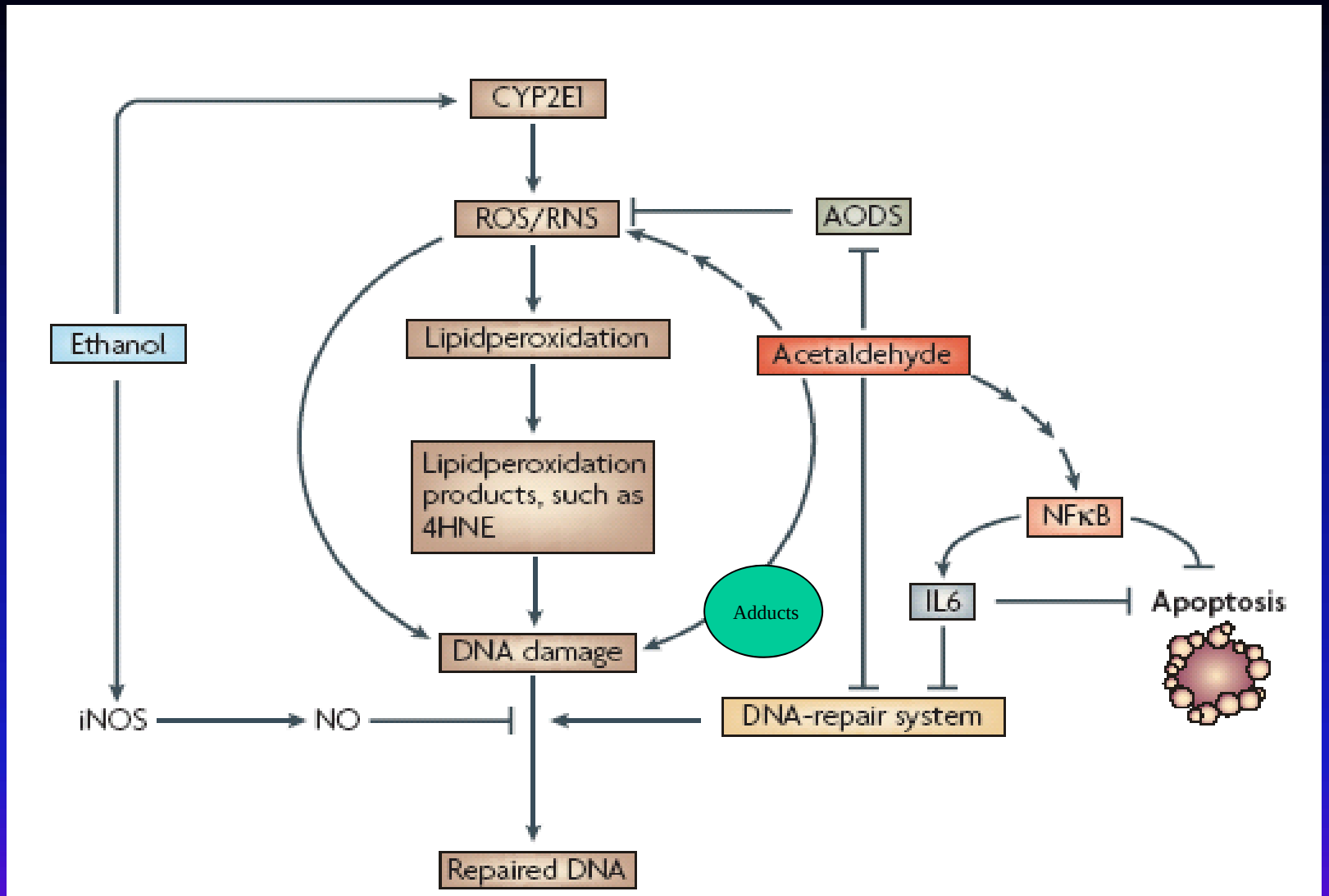
(carne rossa, sale, sovrappeso, no movimento moderato, ritmo circadiano non rispettato, *etanolo, fumo*)



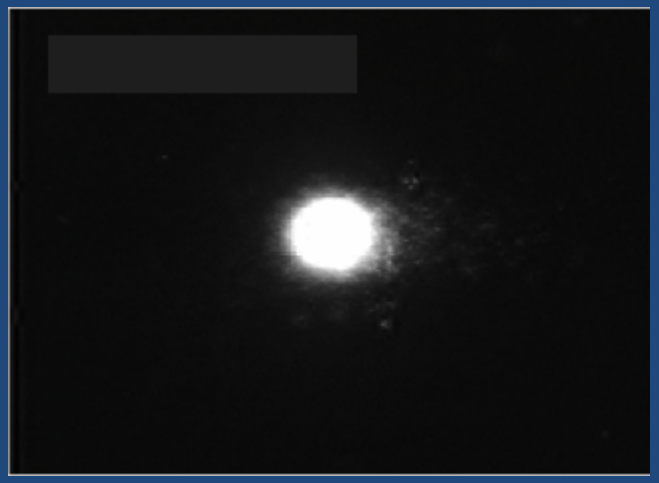
SMOKE



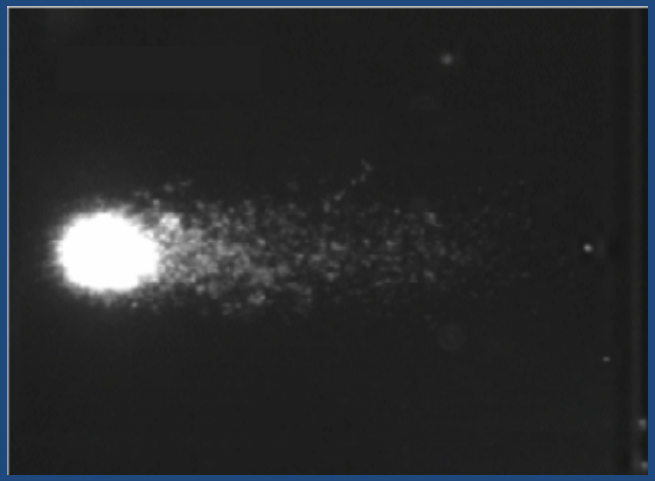
Seitz and Stickel, Nat Rev Cancer 2007



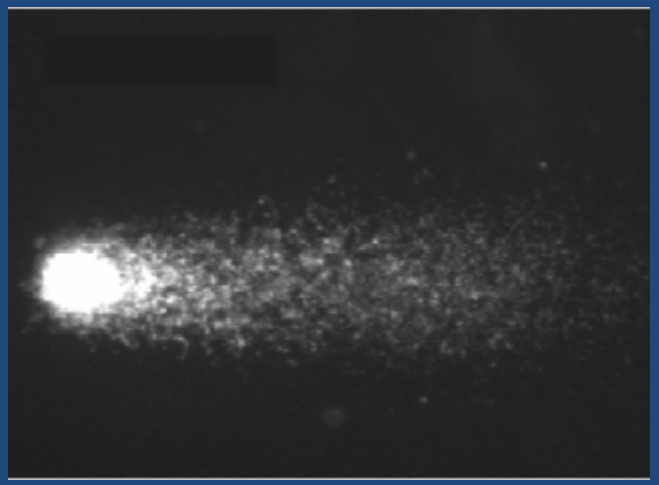
Seitz and Stickel, Nat Rev Cancer 2007



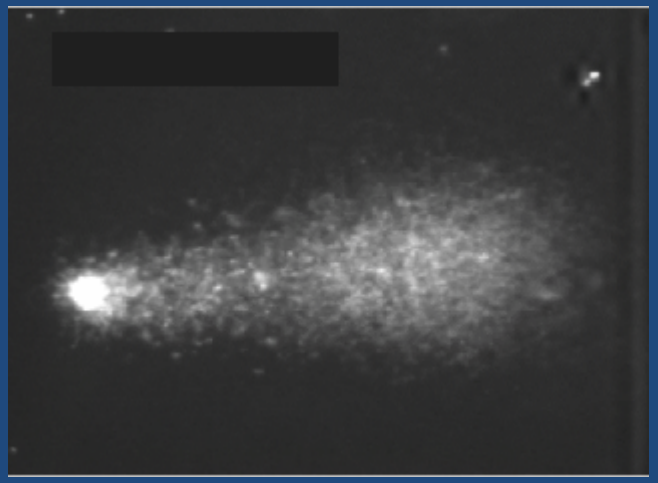
controllo



1



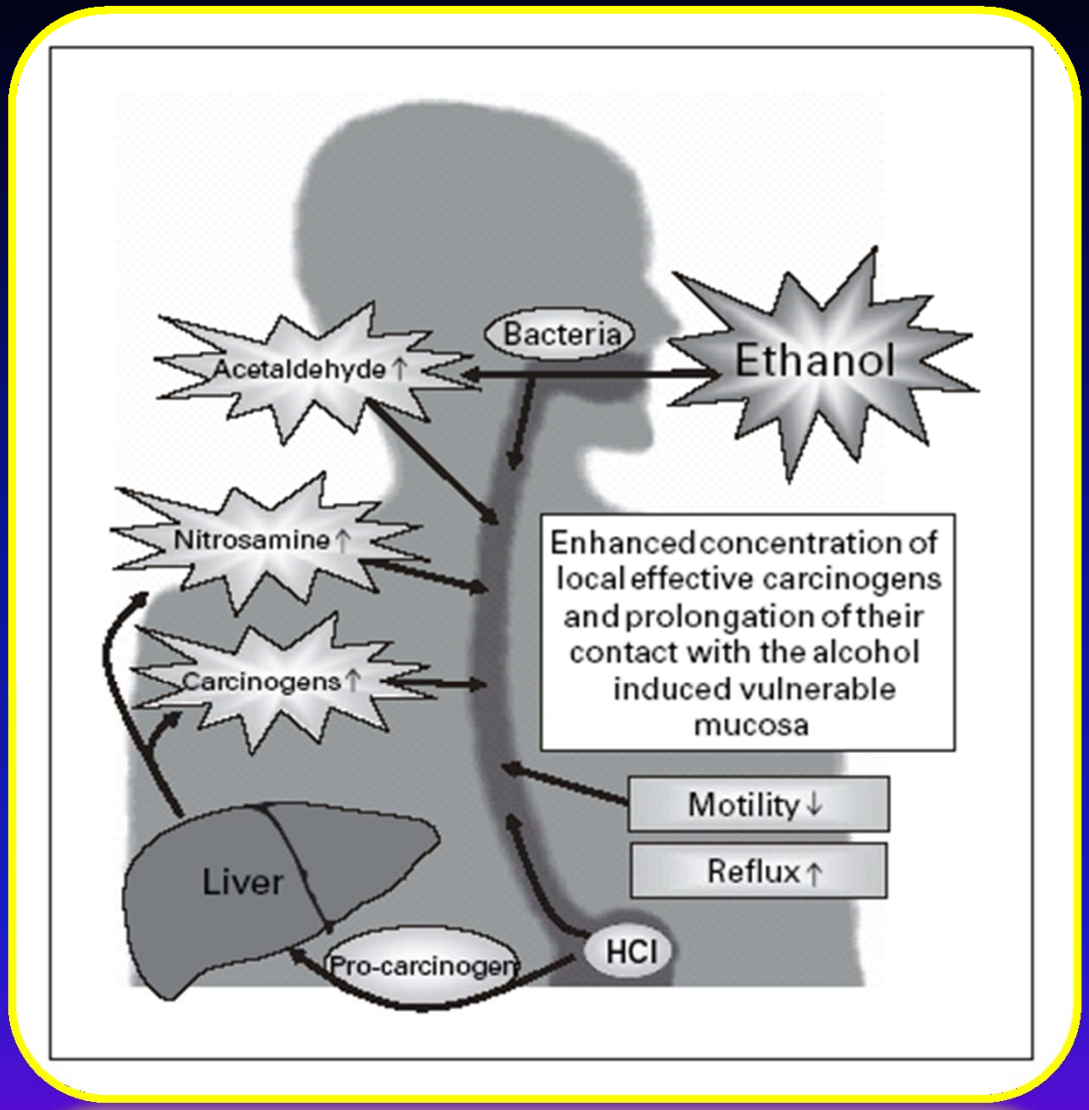
2



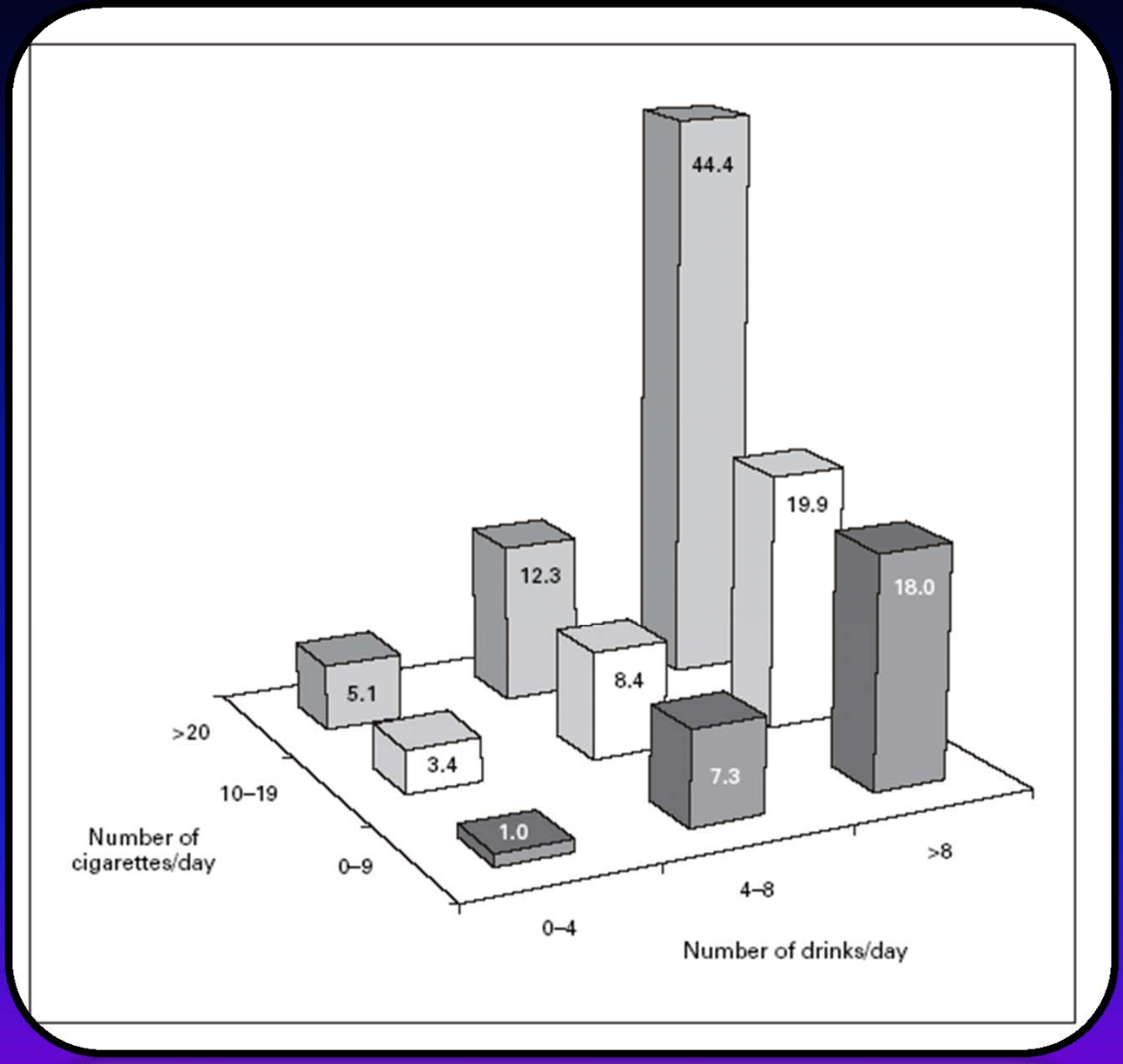
3

1,2,3 = diversi gradi di danno

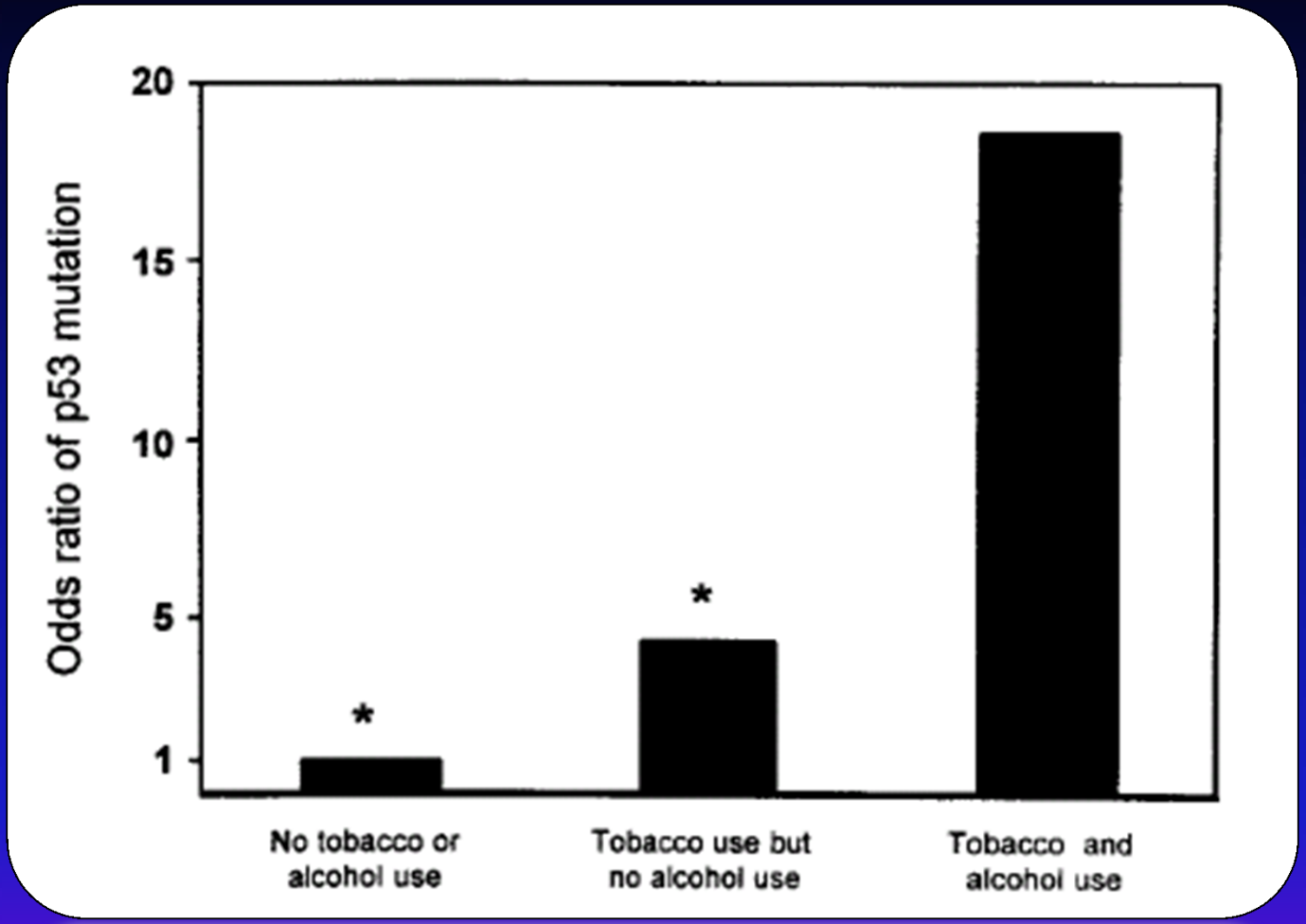
Grossi S…. …Testino G, Martelli A; Eur J Gastroenterol Hepatol 2008



Franke et al, Dig Dis 2005



Franke et al, Dig Dis 2005



Ahrendt et al, Cancer Research 2000

ALCOL E GIOVANI

NON PARLIAMO DI ALCOLISMO,
MA DI *ALCOL (ETANOLO)*

DIAMO L'INFORMAZIONE CORRETTA

L'EVIDENZA SCIENTIFICA NON E' UN OPINIONE

sperimentazione animale,
dati epidemiologici
riproducibile !

GENDER DIFFERENCES IN ALCOHOL METABOLISM

Smaller volume of distribution of ethanol

Sex hormones

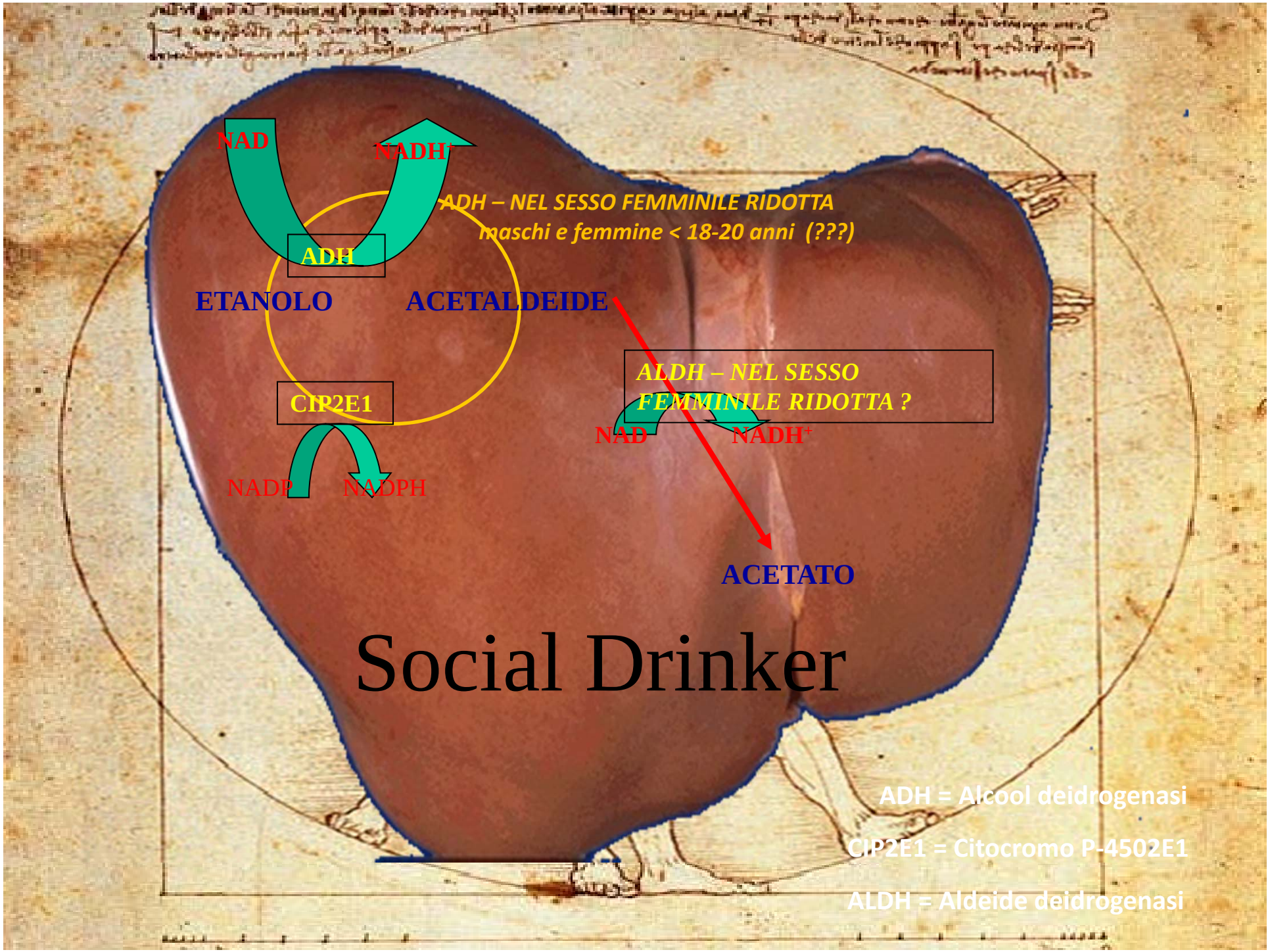
Decreased first-pass metabolism or more rapid absorption

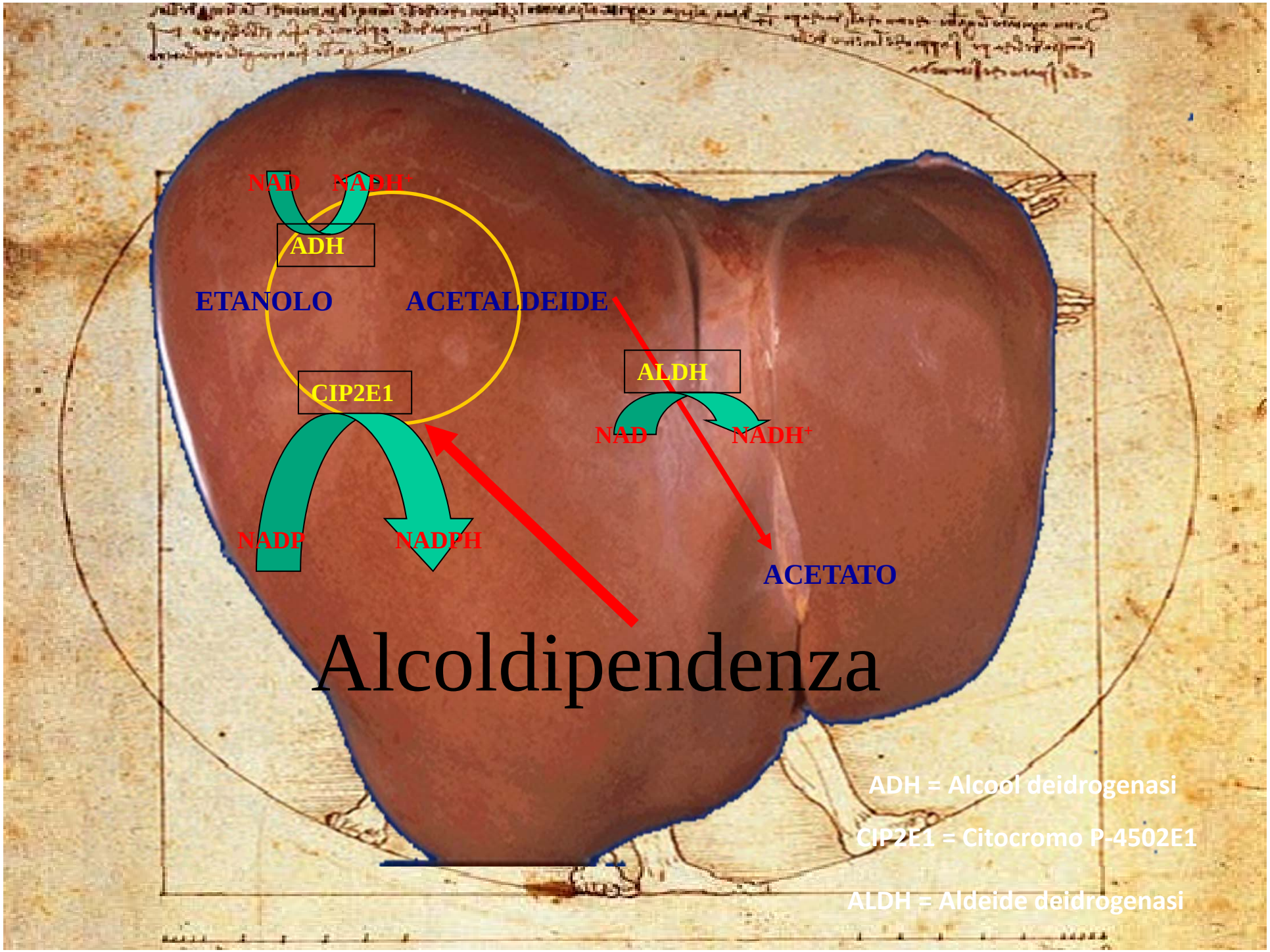
Hepatic ADH activity reduced

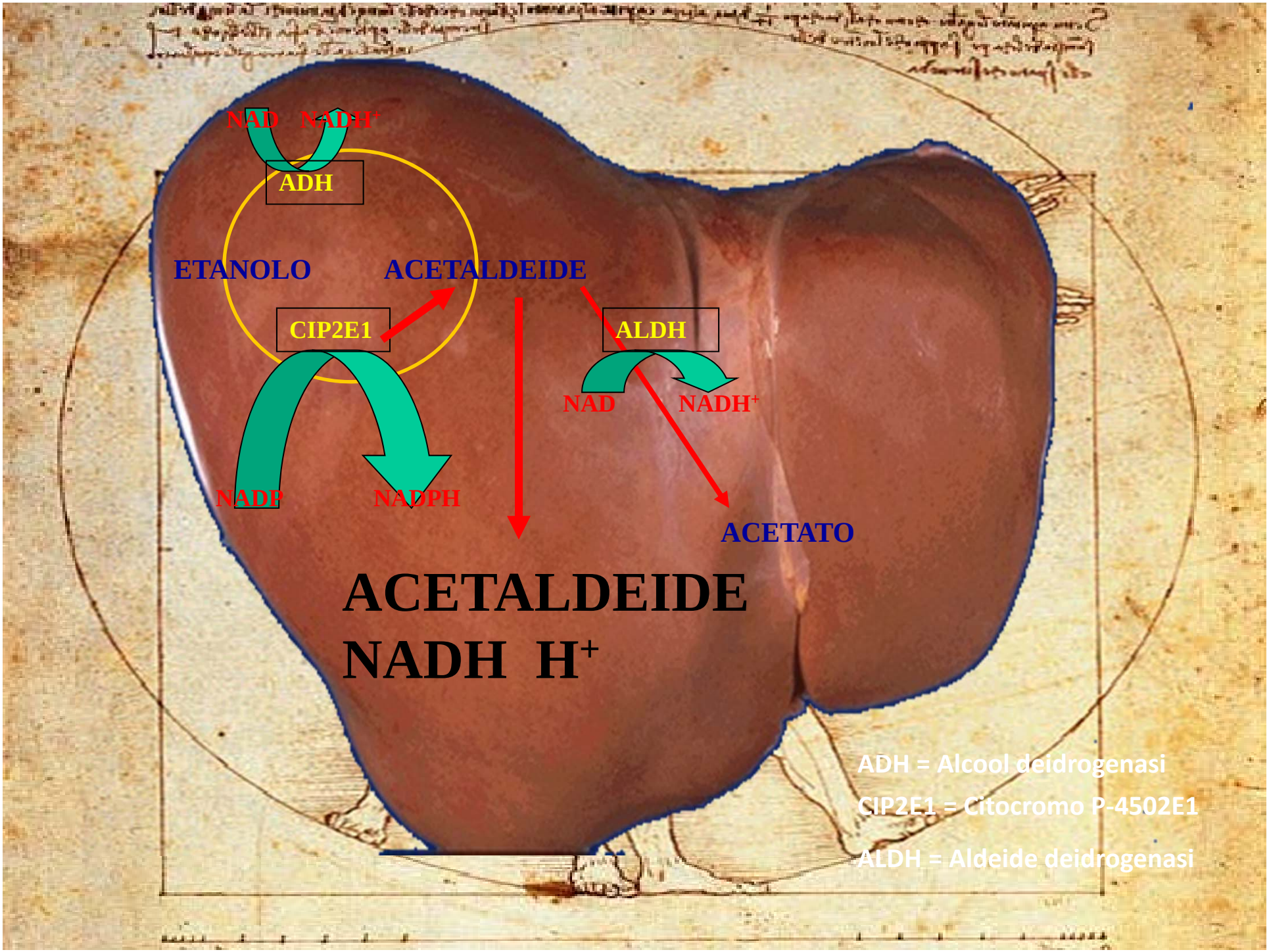
Liver volume

Hepatic P450IIE1 (?)

ALDH ?


NAD
NADH+
ADH – NEL SESSO FEMMINILE RIDOTTA
maschi e femmine < 18-20 anni (???)
ADH
ETANOLO
ACETALDEIDE
CIP2E1
NADP
NADPH
ALDH – NEL SESSO FEMMINILE RIDOTTA ?
NAD
NADH+
ACETATO
Social Drinker
ADH = Alcool deidrogenasi
CIP2E1 = Citocromo P-4502E1
ALDH = Aldeide deidrogenasi


NAD
NADH+
ADH
ETANOLO
ACETALDEIDE
ALDH
CIP2E1
NAD
NADH+
NADP
NADPH
ACETATO
Alcoldipendenza
ADH = Alcool deidrogenasi
CIP2E1 = Citocromo P-4502E1
ALDH = Aldeide deidrogenasi


NAD
NADH+
ADH
ETANOLO
ACETALDEIDE
CIP2E1
ALDH
NAD
NADH+
NADP
NADPH
ACETATO
ACETALDEIDE
NADH H+
ADH = Alcool deidrogenasi
CIP2E1 = Citocromo P-4502E1
ALDH = Aldeide deidrogenasi

- Consumo a basso rischio: corrisponde a dosaggi che talvolta "erroneamente" vengono consigliati come non rischiosi o compatibili con la salute;
- consumo rischioso: livello di consumo o una modalità del bere che possono determinare un danno nel caso di persistenza di tali abitudini;
- Consumo dannoso: una modalità di consumo che arreca certamente un danno sia fisico che psichico,
- Consumo eccessivo episodico ("binge drinking"): può essere particolarmente dannoso in presenza di determinate condizioni patologiche.

Il binge drinking è caratterizzato dal consumo di circa 4 UA in due ore;

- Intossicazione: stato di deficit funzionale a carico delle attività psicologiche e psicomotorie, dalla durata più o meno breve. Tale quadro può insorgere anche a dosaggi bassi: cio dipende dall'assetto genetico del soggetto, dalla modalità di consumo, dalla tolleranza acquisita, da altre patologie associate o dal concomitante uso di farmaci;
- alcoldipendenza (lieve, moderata, severa): insieme di fenomeni fisiologici, comportamentali e cognitivi in cui l'uso di alcol riveste per l'individuo una priorità crescente rispetto ad abitudini privilegiate precedentemente.

Tabella IV – Consumo di etanolo e definizione del rischio

CONSUMO DI BEVANDE ALCOLICHE IN SOGGETTI SANI

< 25 anni: ***sempre altamente rischioso***

Donna < 10 gr/die ***Basso rischio***
Uomo < 20 gr/die

one in 1000 deaths *

Donna 11-40 gr/die ***Consumo Rischioso***
Uomo 21-60 gr/die **one in 100 deaths ***
> 65 anni e fra i 16-18 anni >12/die

Donna > 40 gr/die ***Consumo Dannoso***
Uomo > 60 gr/die
Binge Drinking

Scafato E et al, Istituto Superiore Sanita' 2010
Testino et al, Alcohol Alcohol 2013
**Rehm et al, BMC 2014*

higher than the usually accepted involuntary risk of one in one million !!! *

Table 1. The fifth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-5) criteria for the framing of patients with alcohol use disorder (AUD).

1.	Alcohol is often taken in larger amounts or over a longer period than was intended.
2.	There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.
3.	A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.
4.	Craving, or a strong desire or urge to use alcohol.
5.	Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home.
6.	Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.
7.	Important social, occupational, or recreational activities are given up or reduced because of alcohol use.
8.	Recurrent alcohol use in situations in which it is physically hazardous.
9.	Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.
10.	Tolerance, as defined by either of the following: (a) A need for markedly increased amounts of alcohol to achieve intoxication or desired effect; (b) A markedly diminished effect with continued use of the same amount of alcohol.
11.	Withdrawal, as manifested by either of the following: (a) The characteristic withdrawal syndrome for alcohol (refer to criteria A and B of the criteria set for alcohol withdrawal); (b) Alcohol is taken to relieve or avoid withdrawal symptoms.

all the criteria in Table 1). The presence of two or three symptoms indicate a mild disorder, four or five symptoms a moderate one, and six or more symptoms a severe disorder. Notably, DSM-5 removes "legal problems" between the diagnostic criteria adding the craving [11].

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed.; American Psychiatric Association: Washington, DC, USA, 2013; pp. 154–196.

EXPO 2015

basso rischio

Bevande:
Acqua - 6 bicchieri al giorno
Vino - 1 bicchiere scarso a pasto

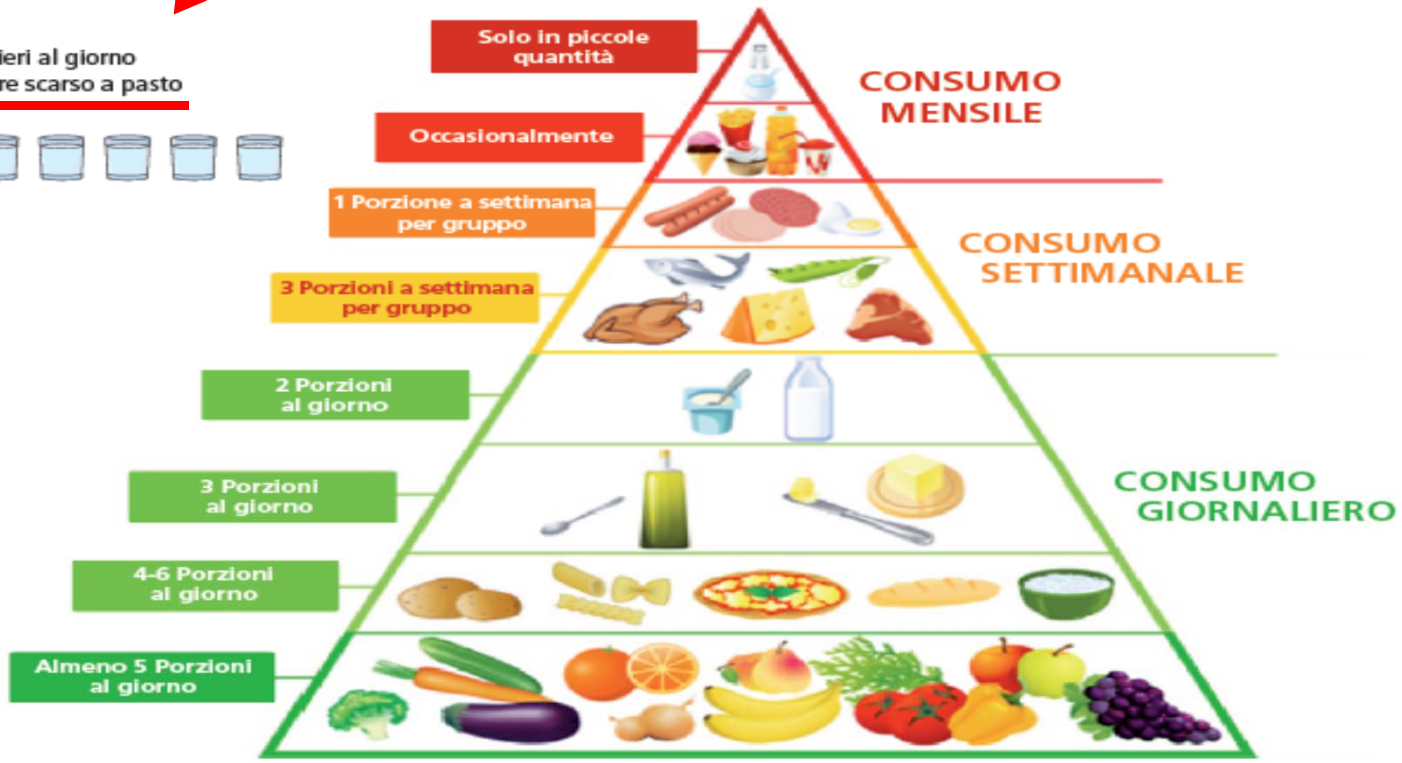


Figura 11.1 "Piramide alimentare".

Alcol, Ipertensione, Aritmie

Femmine

	0 gr	1-19 gr/die	20-39 gr/die
IPETENSIONE (RR)	1	1.4	2
ARITMIE (RR)*	1	1.5	2.2

*Sino al 30% delle FA da consumo sociale di alcol

Scafato E., Istituto Superiore di Sanita', 2010

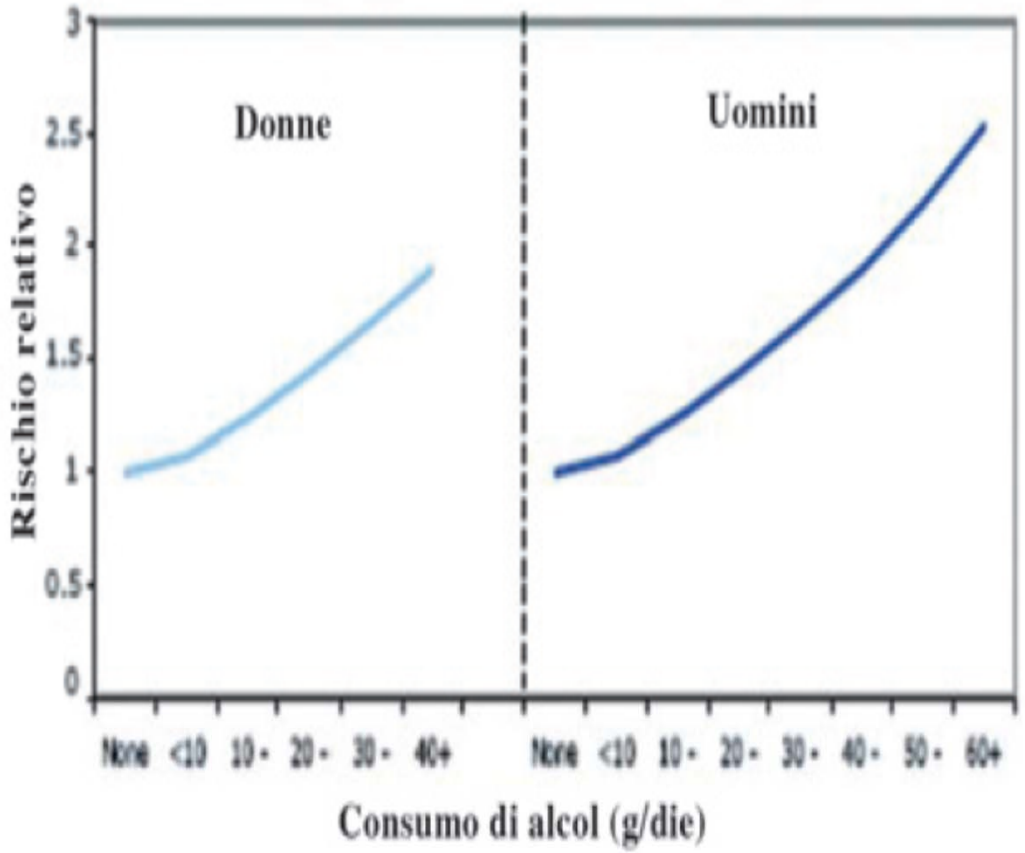


Figura 4.5. Rischio relativo di ipertensione per consumo alcolico.
Fonte: Strategy Unit (2003).

Scafato et al, ISS 2010

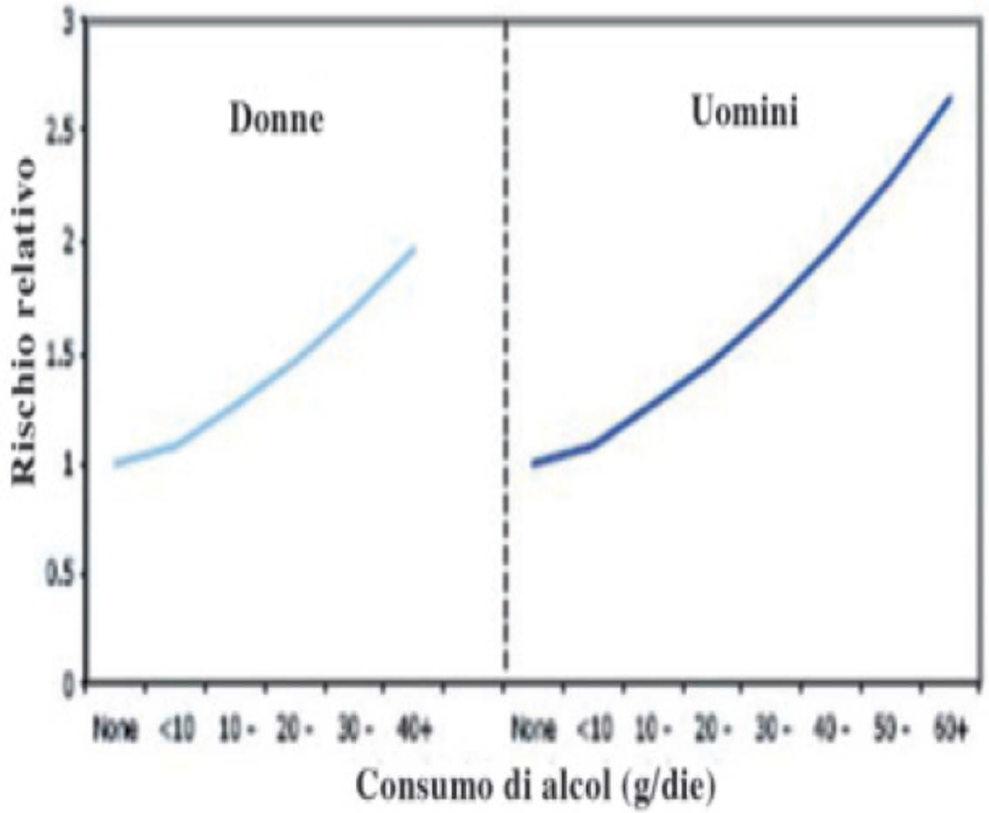
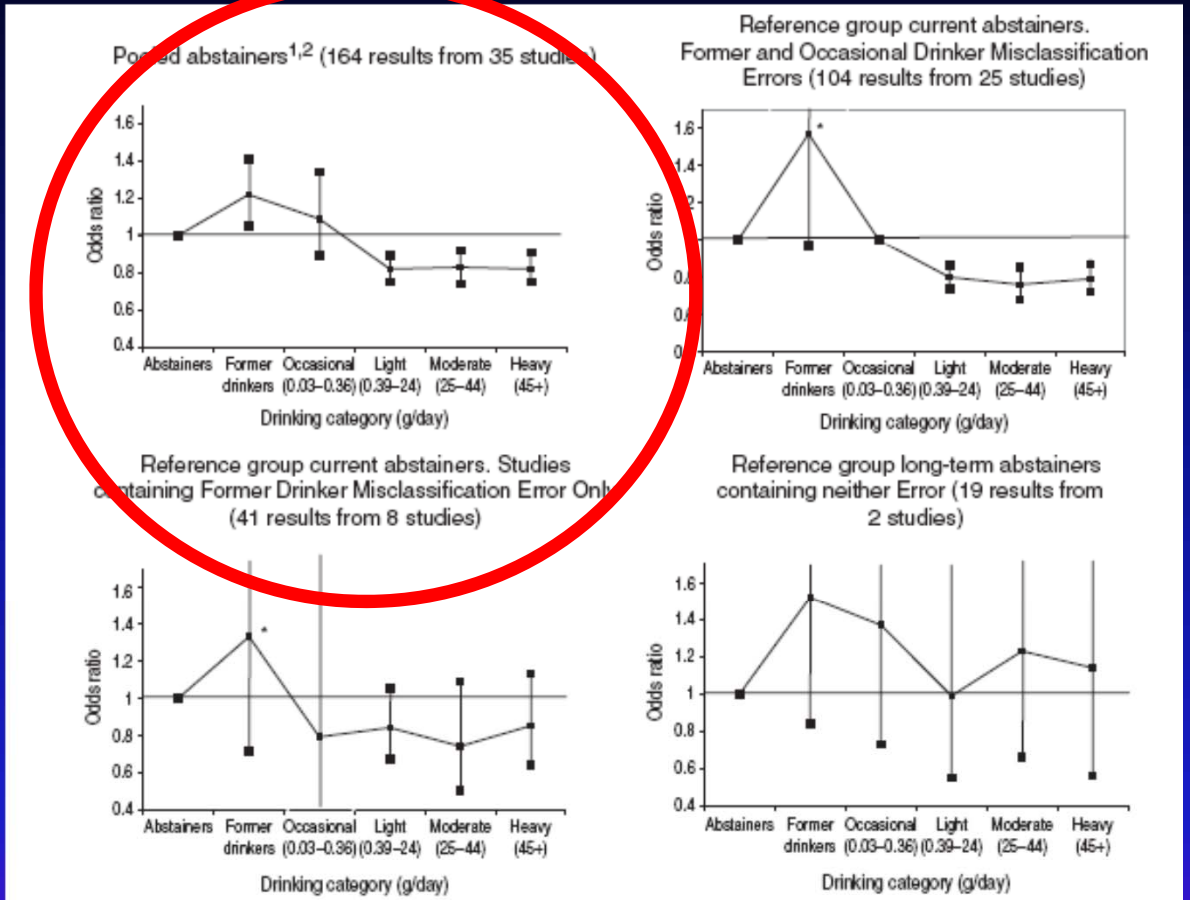


Figura 4.6. Rischio relativo di ictus emorragico per consumo alcolico. Fonte: Strategy Unit (2003).

Scafato et al, ISS 2010

Un invito alla cautela e alla revisione delle metodologie

E. Scafato
ISS, Roma



[1] In pooled model, former drinkers are statistically significantly higher than light drinkers.
[2] In pooled model, occasional drinkers are statistically significantly higher than light drinkers.
* In some studies Former Drinker Misclassification Errors were found but these studies classified some of their respondents as former drinkers.This accounts for the category of former drinker in these models. The number of observations for former drinkers in the studies containing both former drinker and occasional drinker misclassification is 1. The number of observations for former drinkers in the studies containing former drinker misclassification error only is 2.

Figure 2. Categorical drinking group models for CHD mortality.

BMJ 2014;349:g4164 doi: 10.1136/bmj.g4164 (Published 10 July 2014)

RESEARCH

Association between alcohol and cardiovascular disease: Mendelian randomisation analysis based on individual participant data

Conclusions Individuals with a genetic variant associated with non-drinking and lower alcohol consumption had a more favourable cardiovascular profile and a reduced risk of coronary heart disease than those without the genetic variant. This suggests that reduction of alcohol consumption, even for light to moderate drinkers, is beneficial for cardiovascular health.

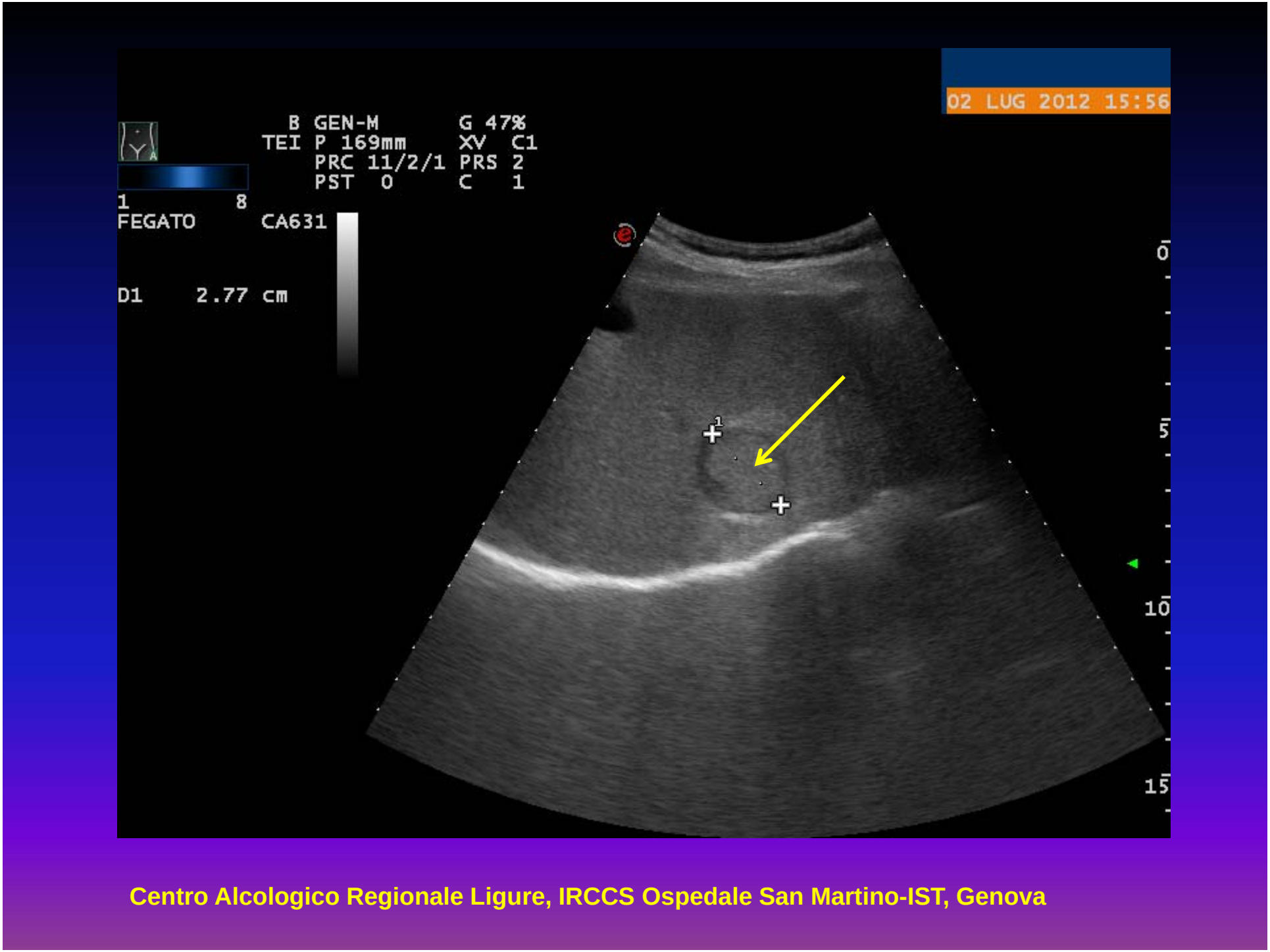
Holmes MV et al. British Medical Journal 2014

Table 1 Summary of main data and consequences of binge drinking other than upon the liver

	Main findings	Consequences
Addictive behaviour	High correlation with alcoholism screening tests	Alcohol dependence
Risk in behavioural habits	Unintentional injuries	Social disability
	Interpersonal violence	Higher risk of mortality
	Fetal alcohol syndrome	
	Child neglect	
	Loss of productivity	
	Suicide	
	Sexually transmitted diseases	
	Unintended pregnancy	
Cardiovascular system	Prolongation of PR and QTc interval	Atrial fibrillation and ventricular arrhythmias
	Hypertension	Haemorrhagic and ischaemic strokes
		Acute myocardial infarction

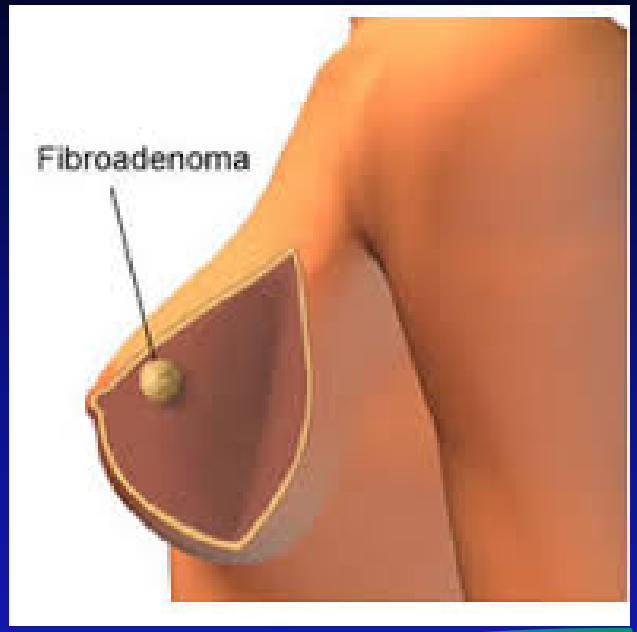
Table 2 Summary of the main data and consequences of binge drinking upon the liver

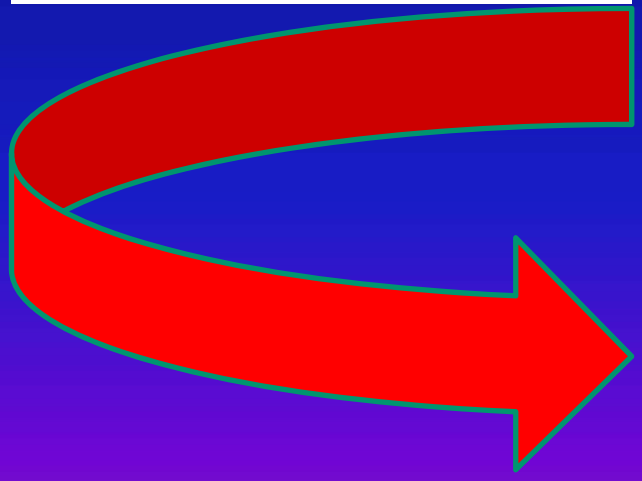
	Main findings	Consequences
Experimental data	Increased intestinal permeability	Worsened liver injury
	Increase in serum nitric oxide	Increase in portal pressure
	Selective depletion of mitochondrial glutathione	Mitochondrial dysfunction
	Excess of lipid peroxidation products	Mitochondrial dysfunction
	Fas L expression	Hepatic apoptosis
	Sinusoidal endothelial cell dysfunction	Ischaemic liver injury
	Repeated episodes of binge drinking	Exacerbation of the above phenomena
Epidemiological data	Increase in the incidence of cirrhosis in countries with a culture of binge drinking	Increase in cirrhosis mortality rates in the same countries

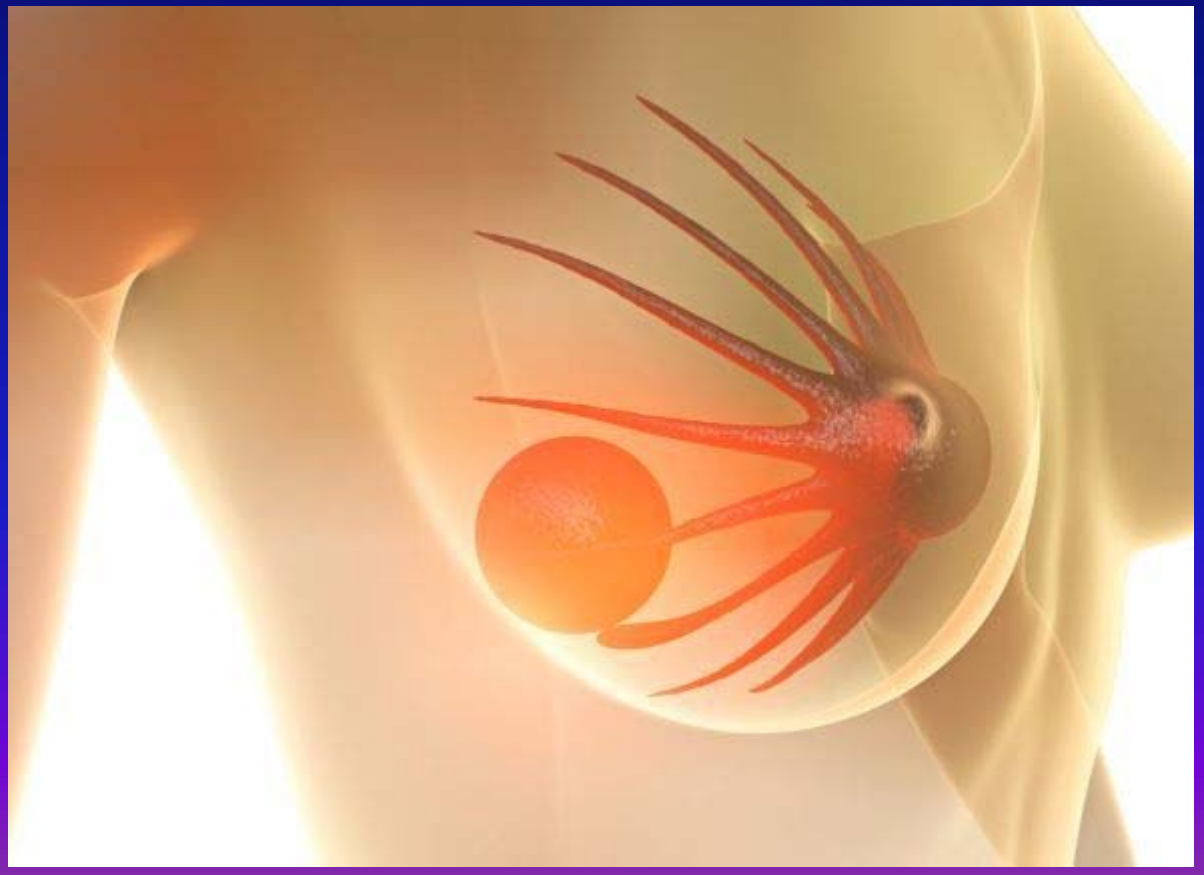


Centro Alcologico Regionale Ligure, IRCCS Ospedale San Martino-IST, Genova

ALCOL
LESIONI ALLA MAMMELLA IN ACCRESCIMENTO







Prospective Study of Adolescent Alcohol Consumption and Risk of Benign Breast Disease in Young Women

Drinking Frequency	OR
Never to less than weekly	1.00 (referent)
1-2 U/ wk	1.72
3-5 U/ wk	3.34
6-7 U/ wk	5.94

Berkey CS et al, Pediatrics 2010

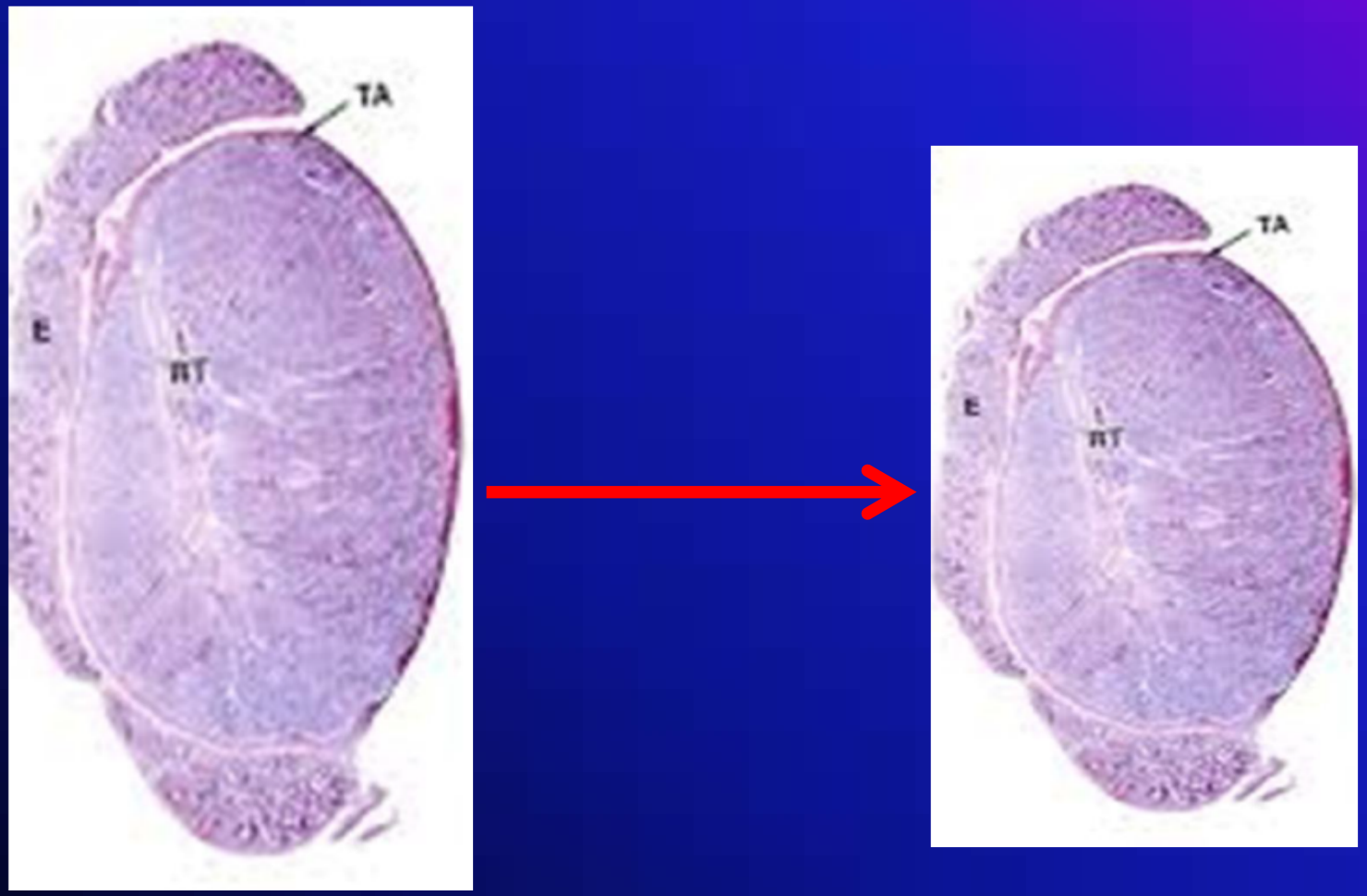
Printz C, Cancer 2010

Maschio – Alcol e alterazioni sfera sessuale
Alterazione asse ipotalamico-ipofisario-gonadico

- atrofia testicolare,
- ginecomastia (aumento delle mammelle nell'uomo),
- riduzione del numero degli spermatozoi,
- alterazione della funzionalità degli spermatozoi (alterata morfologia e ridotta motilità),
- riduzione del volume del seme,
- ridotta crescita della barba,
- eritema palmare,
- distribuzione pilifera di tipo femminile,
- atrofia prostatica,
- disturbi dell'eiaculazione,
- impotenza

Riduzione testicolare 40-60%: **< testosterone; < assorbimento zinco; ridotta inattivazione estrogeni; azione tossica acetaldeide; > aromatasi (androgeni → estrogeni);**
< vitamina A/<testosterone → < spermatogenesi

TESTICOLI – ALCOL (Birra, Vino, superalcolici)



Residual Effects: Young Adult Diagnostic Drinking Predicts Late-Life Health Outcomes

JON RANDOLPH HABER, PH.D.,[a,*] BROOKE HARRIS-OLENAK, PH.D.,[a] THOMAS BURROUGHS, PH.D.,[b] & THEODORE JACOB, PH.D.[a]

[a]*Palo Alto Veterans Affairs Health Care System, Menlo Park, California*
[b]*Hunter Holmes McGuire Veterans Affairs Medical Center, Richmond, Virginia*

ABSTRACT. Objective: This study examined the residual effects of young adult diagnostic drinking on health outcomes four decades later in late life. Results were differentiated by drinking status during midlife. **Method:** A subsample of Vietnam Era Twin Registry members, all of whom had a lifetime diagnosis of alcohol dependence, was grouped according to life span drinking patterns as assessed by the Lifetime Drinking History interview in 2001. Those drinking at diagnostic levels (endorsing three or more alcohol dependence symptoms) before age 30 were then grouped based on their midlife drinking status (i.e., drinking at diagnostic levels vs. at minimal [nonsymptomatic] levels throughout midlife). Linear (or logistic) regression models were used to examine the association between life span drinking patterns and health outcomes in late life (about age 64). **Results:** Those who drank at diagnostic levels in young adulthood and in midlife exhibited significant health liabilities on every late-life health measure; those who drank at diagnostic levels for 5 or more years in young adulthood but drank only at minimal levels or not at all in midlife still exhibited similar liabilities on most late-life health measures. Only those individuals who drank diagnostically for less than 5 years in young adulthood displayed normal levels of late-life health. **Conclusions:** This study identified residual effects resulting from persistent young adult diagnostic drinking (5 or more years) that resulted in negative health outcomes in late life even after decades of remission. There is a distal but surprisingly strong association between persistent early life diagnostic drinking and late-life morbidity. (*J. Stud. Alcohol Drugs, 77,* 859–867, 2016)

… surprising strong association between persistent early life diagnostic drinking (binge drinking) and late-life morbidity

J Stud Alcohol Drugs, 2016

BRAIN MATURATION (I)

Adolescent brain undergoes extensive morphometric and functional maturation involving decreases in gray matter and increases in white matter volume

Pfefferbaum et al, Arch Neurol 1994; Giedd, Ann New York Ac Sci 2004

Cross-sectional studies have shown that cortical gray matter volume reduction begins during preadolescence.
Related to pruning of excess neurons, changes in the extracellular matrix and white matter encroachment (posterior brain region → anterior regions)

Paus, Trends in Cognitive Science; Gogtay et al, Proc Nat Ac Sci 2004

Cortical gray matter decreases in dorsal prefrontal cortical volume continuing into early adulthood (mid-20s)

Sowell et al, J Neurosci 2001

White matter volume increases over adolescent, due to in part to myelinization of white matter tracts and axonal extension for connectivy

Giedd et al, Nature Neuroscience 1999

BRAIN MATURATION (II)

….neural processes are integral components of functional development, creating localized and enhanced efficient information processing required for mature complex cognitive and motor abilities

Squeglia et al, J Intern Neuropsychol Society 2013

-Deleterious effects of exogenous agents, including alcohol

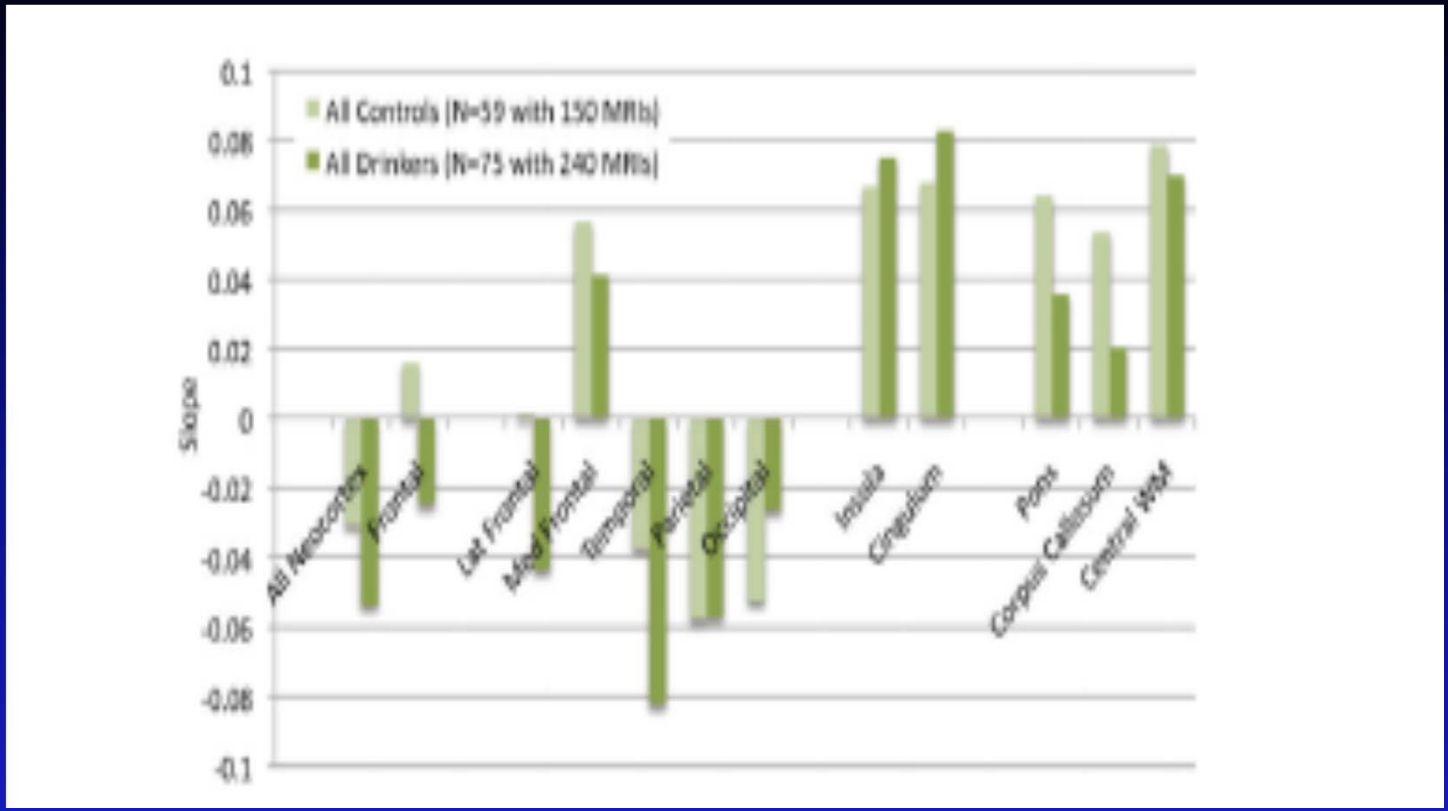
Jacobus and Tapert, Ann Rev Clin Psychol 2013

Controlled longitudinal study (dynamic neural events, 17 → 19 years):
accelerated cortical thinning of right middle frontal gyrus and decreased white matter volume subjacent to precentral gyral and middle temporal gyral cortices (Luciana et al, Am J Drug Alcohol Abuse 2013)

-15 → 18: greater volume reduction in the left ventral diencephalon, left inferior and middle temporal gyrus, and left caudate

Squeglia et al, Developmental and Cognitive Neuroscience 2014

alcohol drinking alters the traiectories ?



I volumi neocorticali si riducono fisiologicamente nei non bevitori e nei bevitori. Nei bevitori questo decremento e' significativamente accentuato. L'accrescimento del corpo calloso e CWM e' ridotto significativamente rispetto ai non bevitori.

Squeglia et al, Am J Psychiatry 2015

Reduction gray matter: bilateral anterior cingulate cortex, right orbitofrontal and frontopolar cortex, right superior temporal girus and right insular cortex

Heikkinen et al, Addiction 2016

A

Sostanze/ Comportamenti/Esempi

Glutamato

recettori neuronali/ membrane dendritiche
ippocampo/ amigdala/ nucleo accumbens/ dorsale striato
attivazione sistema dopaminergico

modificazioni molecolari induttrici memoria

normalmente
estinzione dopo
trascrizione genica

modificazione/attivazione
fattori di trascrizione genica

si autoperpetua in caso di
sostanze o comportamenti
pro-addiction

trascrizione genica

sintesi proteica

LTP/ memoria sostanze

autoperpetuazione memoria per autoperpetuazione
modificazione/attivazione fattori di trascrizione

Traduzione anatomica (plasticita')
-cambiamento connettivita'
-aumento connessioni riferite a sostanze/comportamenti

comportamento costantemente modificato
(consumo sostanze, gioco, comportamento alimentare, ecc)

Sweatt, J Neurochem 2016; Goodman and Packard, Frontiers in Psichiatry 2016

Korb et al, Nature Neuroscience 2013; Sweatt, J Neurochem 2016; Goodman and Packard, Frontiers in Psichiatry 2016

C

Stimolo
Sostanze/comportamenti

Glutamato
Recettori neuroni/ rami dendritici

Modificazione/attivazione **fattori di trascrizione**
CREB, elk1, zif258, e-rel, TCF4
Fosfolizazione-CREB
Fosforilazione-elk-1
Etc

CaMKII-CaMKII+P → **CaMKII-P+CaMKII-P**
Esempio:
attivato→attivato/attiva → attivato/attiva → attivato/attiva → etc
↓ estinto ↓ estinto

autoperpetuazione

trascrizione genica
Esempio:
metilazione DNA: C-G dinucleotide emi-metilato → metila C-G complementare → all'infinito
autoerpetuazione trascrizione genica

memorie indelebili: stimolabili/ riattivabili

Korb et al, Nature Neuroscience 2013; Sweatt, J Neurochem 2016; Goodman and Packard, Frontiers in Psichiatry 2016; Squeglia and Gray, Curr Psychiatry Rep 2016

IN RAPPORTO ALLO SVILUPPO NEUROLOGICO

STRATEGIA: POSTICIPARE IL PIU' POSSIBILE IL PRIMO CONTATTO CON IL CERVELLO DEI GIOVANI CON ETANOLO E NICOTINA

SE IL CONSUMO AVVENISSE DOPO I 20 ANNI (meglio dopo i 25 anni):

- *Dipendenza: significativa riduzione**
- Minori danni organici
- Anni di vita vissuti liberi da malattia aumentati in modo significativo

P. Shaw et al, 2008; L. Gallimberti, 2013

***Se primo consumo sotto i 15 anni 38% di rischio di evolvere in dipendenza →**

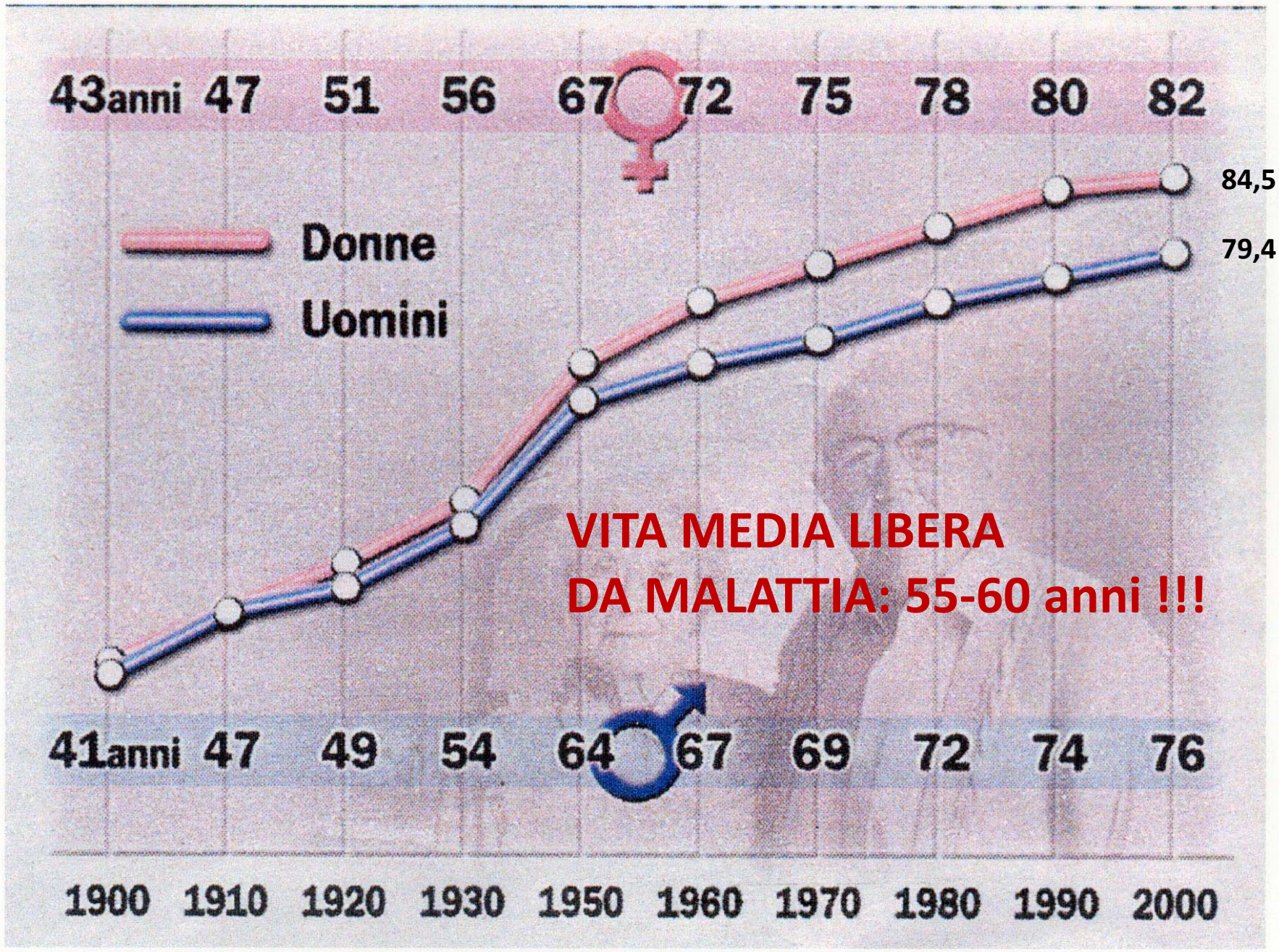
rischio cala al 10% all'eta' di 21 anni ed e' sotto il 10% dopo i 25 anni

Silveri MM, Pharmacol Ther 2014; 143: 197-216

… binge drinking and chronic alcohol dependence should be regarded as two stages of the same phenomenon …..

Petit et al, Alcohol Alcoholism 2013


LA VITA MEDIA
DALL'HOMO SAPIENS AL 2020
Come si è allungata nei secoli
l'aspettativa di vita degli uomini.
22 anni
Impero romano
33 anni
Medioevo
38 anni
1800
43 anni
1900
78 anni
1998
86 anni
2005
???
2020


43anni 47 51 56 67 72 75 78 80 82
84,5
79,4
Donne
Uomini
VITA MEDIA LIBERA
DA MALATTIA: 55-60 anni !!!
41anni 47 49 54 64 67 69 72 74 76
1900 1910 1920 1930 1950 1960 1970 1980 1990 2000

ETANOLO: tossico, cancerogeno, teratogeno, droga

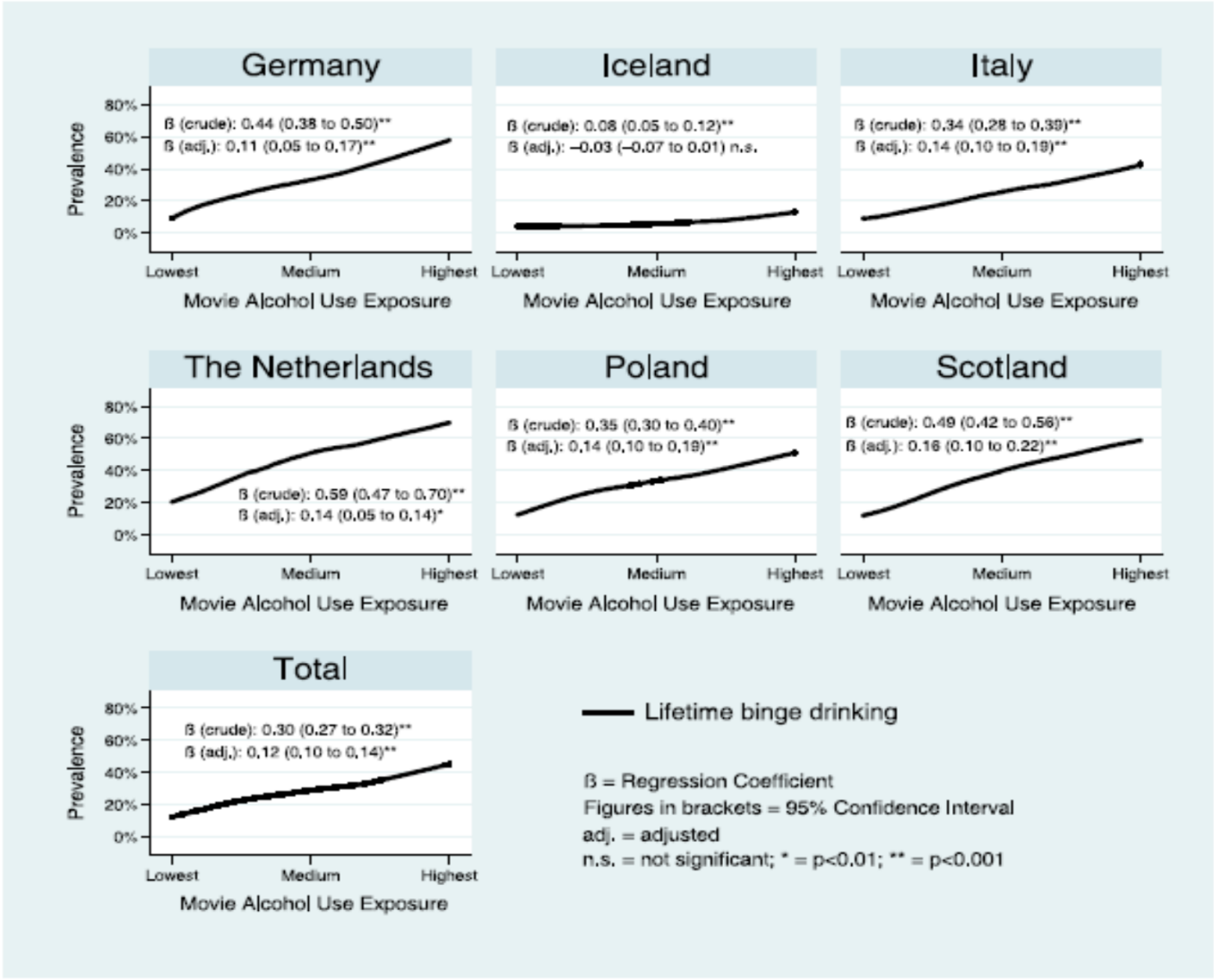
CULTURA o TRADIZIONE?

- Alimento
- Normalizzazione
- Successo
- Sport

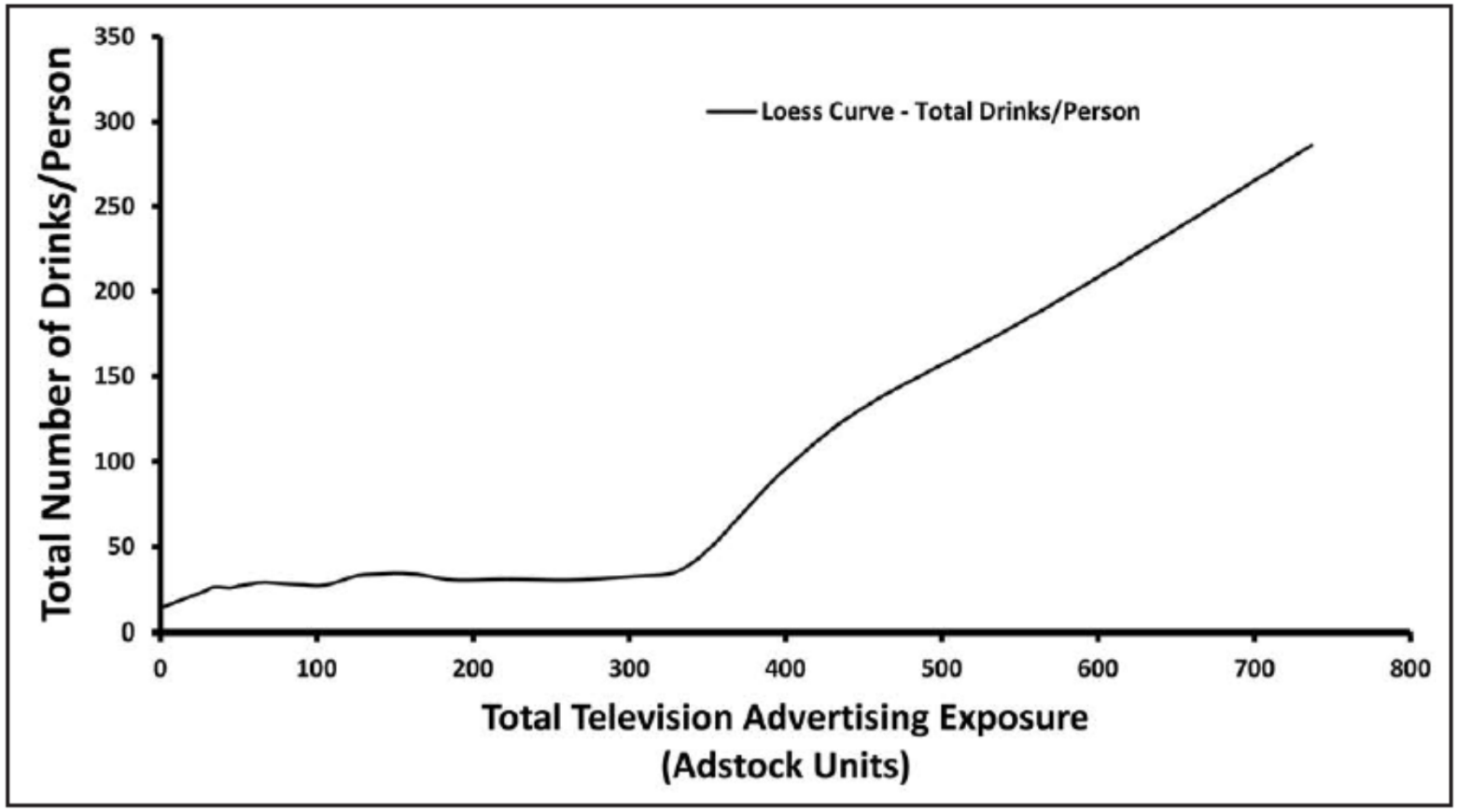
PUBBLICITA'/ GIOVANI

- Benessere *(sovrastima del consumo moderato-sociale)*
- Lobbies
- Influenza politica
- Mancanza di un linguaggio comune fra i professionisti della salute *(non attivazione universitaria insegnamento di alcologia)*

L'estetica della salute: Gianni Testino, Silvia Testino 2016

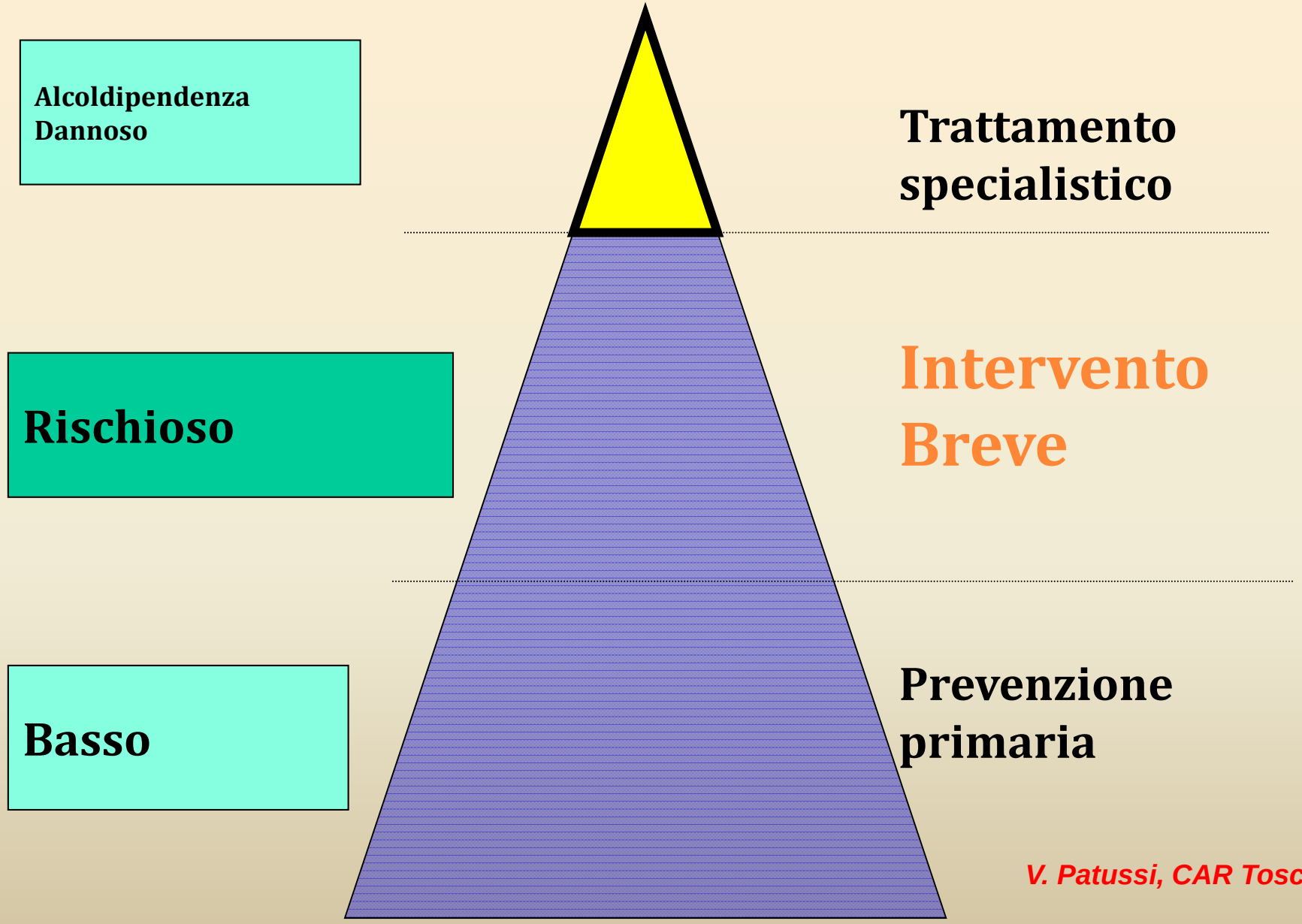


Hanewinkel et al, Pediatrics 2012



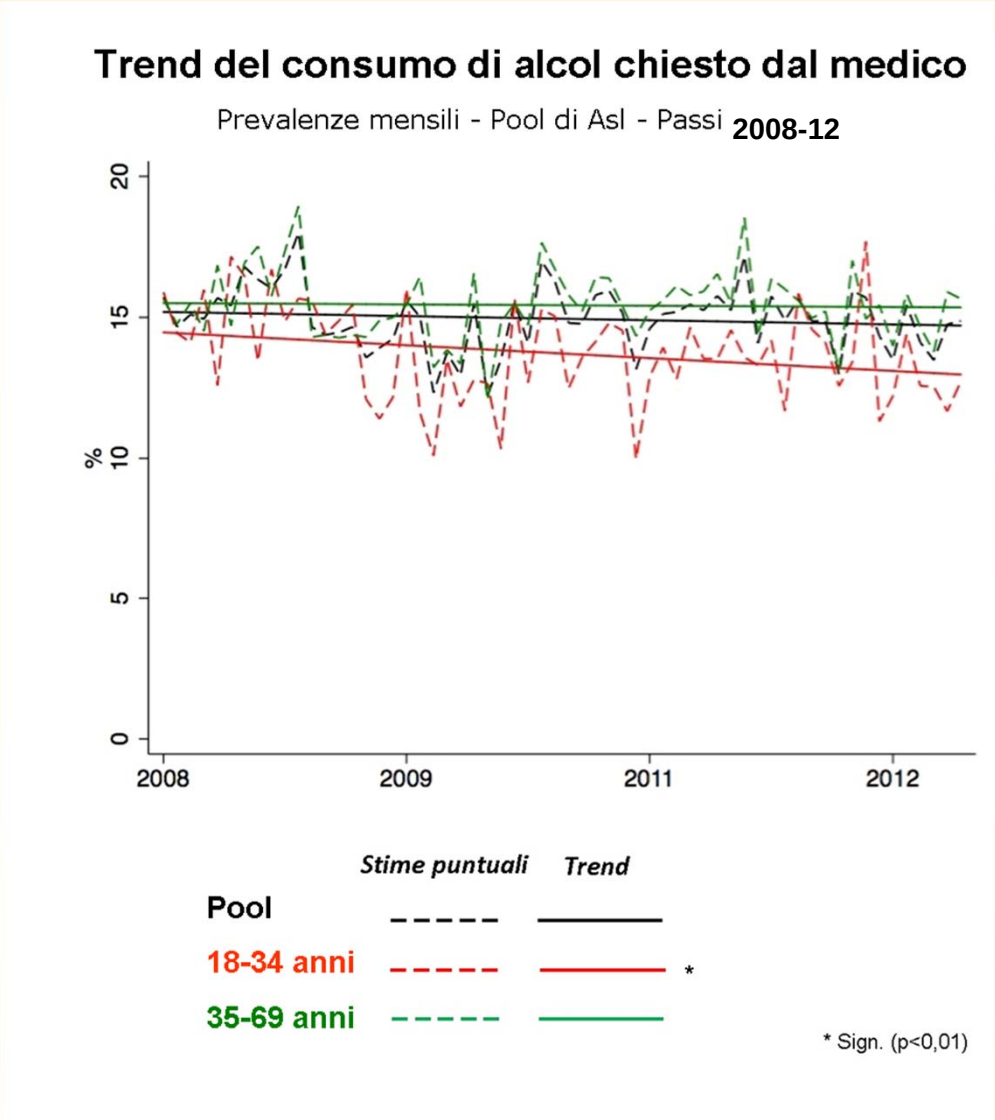
Naimi et al, J Stud Alcohol Drugs 2016

GRAVITÀ CONSUMO/PPAC e TIPO DI INTERVENTO



V. Patussi, CAR Toscana

Sistema di sorveglianza PASSI 2012 (pop. 18-69 aa)
Pool di Asl di 21 Regioni e P.A. (n=32.208)



Attenzione degli operatori sanitari al consumo di alcol*

15%

- Significative differenze regionali: dal 7% della Basilicata al 25 del Friuli Venezia-Giulia

- Significativo trend in diminuzione nella classe di età più giovane (18-34 anni)

* Persone, che sono state dal medico o da un operatore sanitario negli ultimi 12 mesi, a cui è stato chiesto se bevono

E. SCAFATO, ISS, Roma

guadagnare salute
rendere facili le scelte salutari

ALCOHOL SCREENING AND BRIEF INTERVENTION FOR YOUTH

A PRACTITIONER'S GUIDE

National Institute on Alcohol Abuse and Alcoholism

2015

C: Have you ever ridden in a **CAR** driven by someone (including yourself) who was "high" or had been using alcohol or drugs?

R: Do you ever use alcohol or drugs to **RELAX**, feel better about yourself, or fit in?

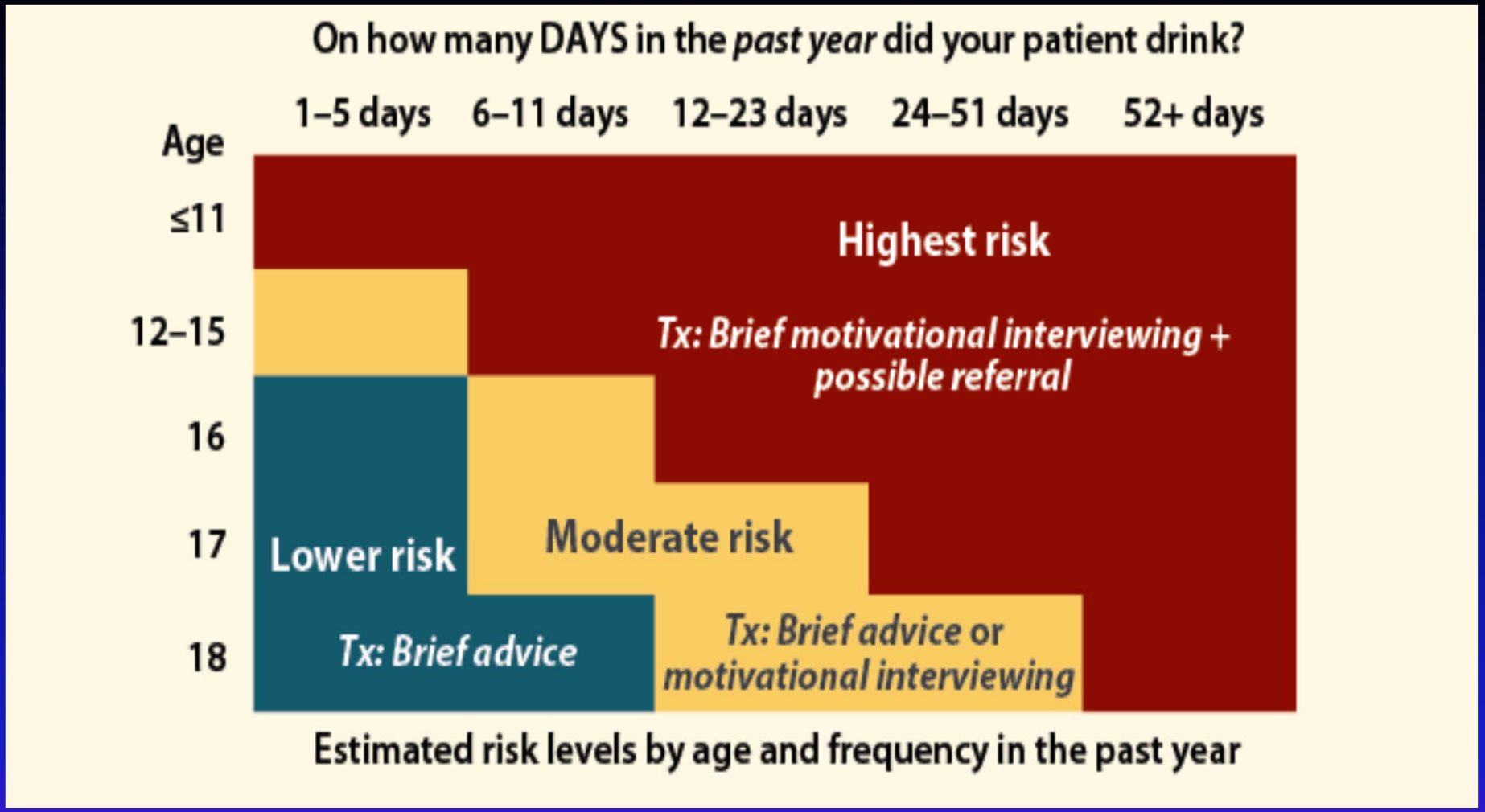
A: Do you ever use alcohol or drugs while you are by yourself, **ALONE**?

F: Do you ever **FORGET** things you did while using alcohol or drugs?

F: Do your family or **FRIENDS** ever tell you that you should cut down on your drinking or drug use?

T: Have you ever gotten into **TROUBLE** while you were using alcohol or drugs?

Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2011). *Monitoring the Future national survey results on adolescent drug use: Overview of key findings, 2010.* Ann Arbor: Institute for Social Research, The University of Michigan, 77 pp.


On how many DAYS in the *past year* did your patient drink?
1–5 days
6–11 days
12–23 days
24–51 days
52+ days
Age
≤11
12–15
16
17
18
Highest risk
Tx: Brief motivational interviewing + possible referral
Lower risk
Tx: Brief advice
Moderate risk
Tx: Brief advice or motivational interviewing
Estimated risk levels by age and frequency in the past year

Drug and Alcohol Review (July 2009), 28, 426–435
DOI: 10.1111/j.1465-3362.2009.00055.x

REVIEW

Warnings on alcohol containers and advertisements: International experience and evidence on effects

CLAIRE WILKINSON[1] & ROBIN ROOM[1,2]

[1]*AER Centre for Alcohol Policy Research, Turning Point Alcohol and Drug Centre, Melbourne, Australia, and* [2]*School of Population Health, University of Melbourne, Melbourne, Australia*

2 Evaluations of the effect of alcohol warning labels are limited to the US experience with labels implemented in 1989. Although there is some limited evidence of effects on knowledge and attitudes, there is only slight evidence of any effects on drinking behaviour. In contrast to this, the tobacco labelling experience offers strong evidence that warning labels can be effective not only in increasing information and changing attitudes, but also in affecting behaviour.

3 Unlike current cigarette warnings, alcohol warning labels have been extremely limited in scope. To use the terms of Ferrence *et al.* [29], warnings are often 'vague and equivocal' rather than 'specific and unambiguous'. Alcohol warnings have not been presented 'in a vivid manner that evokes an emotional reaction'. The Swedish warning labels on advertisements seem to be the single example in the alcohol field of rotating warnings; otherwise a single warning has been used, which will not continue to catch attention. It is not surprising in these circumstances that no effectiveness in changing behaviour has been showed for alcohol warning labels.

Miller et al. BMC Public Health (2016) 16:139
DOI 10.1186/s12889-016-2812-8

BMC Public Health

RESEARCH ARTICLE Open Access

Message on a bottle: are alcohol warning labels about cancer appropriate?

Emma R. Miller[1*], Imogen J. Ramsey[1], Genevieve Y. Baratiny[2] and Ian N. Olver[3]

…. the wider literature and our own findings suggest they might produce only limited effects on drinking behaviour on their own.

To maximise impact, warning labels should be considered for use in conjunction with other avenues for prevention, and incorporated into *multi-faceted health campaigns.*

BMC Public Health 2016

«tumor growing in a glass of beer»

Like tobacco and asbestos …… alcohol could cause cancer.
The more you drink and the more often you drink….. The more you increase your risk (UK TV).

There was general consensus in the scientific and medical communities that the consumption of alcohol could increase an individual's risk of developing particular cancer, such as cancer of the breast, larynx and oesophagus.

Crowe et al, BMJ 2011; Gornall, BMJ 2015

Cultural Change in not easy

best way to market a drug is the marketing of a disease

A) Cardio-vascular disease (CVD)

1) Today, it is becoming more obvious that it is not LDL-cholesterol that is directly implicated in CVD but small, dense, type B particles generated after a high intake of sugar and processed carbohydrates
(Malhotra, BMJ 2013; Sinatra et al, J Am Coll Nutr 2014; Singh et al, PLoS One 2013)

2) A stronger focus on nutrition instead of the global oversimplification to massive statin use would have been the most sensible approach
(Ioannidis et al, JAMA 2014; Pencina et al, N Engl J Med 2014; Anonimous, Lancet 2014, 383: 669)

→ 3) 80% of CVD events can be prevented with simple dietary and non-dietary lyfestyle measures
(Reiner et al; J Epidemiol Community Health 2013; Perlemutter et al, Altern Ther Health Med 2013; WHO, CVD, updated March 2013; Mascitelli and Goldstein, Lancet 2013)

4) Virgin olive oil obtained a 30% relative reduction in major CV events (stroke, myocardial, infarction, CV death) (Martinez-Gonzales, Int J Epidemiol 2012; Estruch et al, N Engl J Med 2013)

5) Alcohol and CVD prevention: «a nonsense» ! (Testino et al, Nutr Metab Cardiovasc Dis 2014)

B) Medication versus lifestyle in diabetes prevention

T2D will affect more than 10% of the adult population in many countries during the next two decades, with a projected increase of 55% by 2035.
T2D is also increasing in youth ***(Shaw et al, Diabetes Res Clin Pract 2010; Beagley et al, Res Clin Pract 2014; Zimmet et al, Lancet Diabetes Endocrinol 2014)***

1) T2D largely preventable. Up to 91% of T2D cases could be prevented by relatively modest lifestyle changes: global growing rates of T2D represent a *profound humiliation* for public health ***(Carlos et al, J Epidemiol Community Health 2014; Ley et al, Lancet 2014)***

2) Metformin efficacy was only limited to subjects with a body mass index > 35 kg/m2 (Knowler et al, N Engl J Med 2002)

3) Randomized controlled trials and longitudinal observational studies have confirmed that dietary changes combined with non-dietary lifestyle modification can have a long-term effect on T2D prevention (Danaei et al, Epidemiology 2013; Salas-Salvado et al, AnnIntern Med 2014)

C) The Mirage of Antiobesity drugs !!! «eat less»

Anonimous. The catastrophic failures of public health, Lancet 2004; 363: 745)

LIFESTYLE RISK FACTORS AND RESIDUAL LIFE EXPECTANCY AT AGE 40: A GERMAN COHORT STUDY

RESIDUAL LIFE EXPECTANCY (RLE)

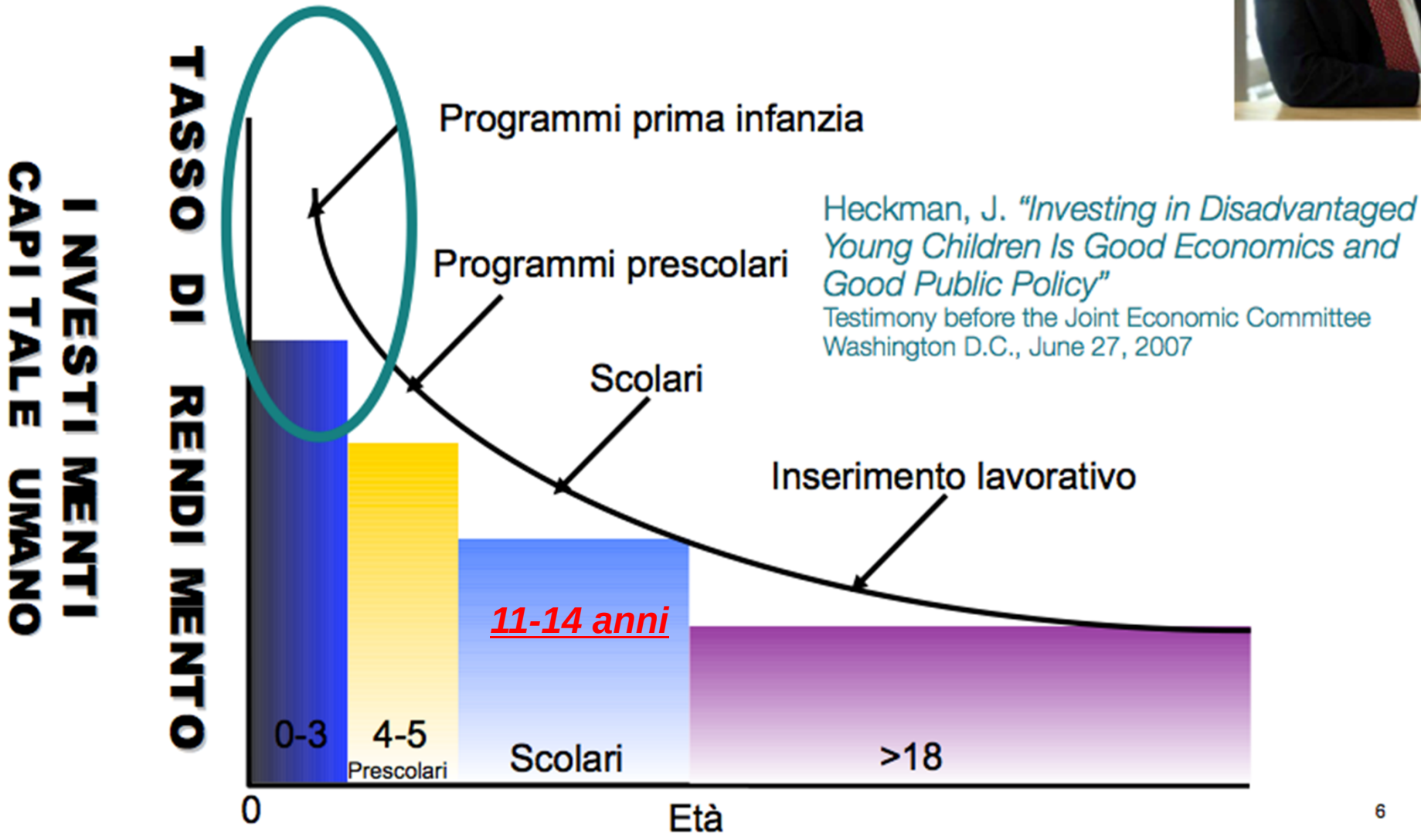
The combined loss of RLE for smoking, obesity, alcohol drinking,

red meat consumption versus never smoking, optimal BMI, no/light alcohol drinking

and low processed/ read meat consumption was 17 years for men and 13.9 for women

Li K et al, BMC Medicine 2014

POLITICHE SOCIALI



Heckman, J. *"Investing in Disadvantaged Young Children Is Good Economics and Good Public Policy"*
Testimony before the Joint Economic Committee
Washington D.C., June 27, 2007

Table 1. **Whole School, Whole Community, and Whole Child (WSCC) Components by Category**

WSCC Components	Categories
• Physical education and physical activity • Nutrition environment and services • Health education	Supporting healthy student behaviors
• Health services • Counseling, psychological, and social services • Employee wellness	Supporting school health services
• Social and emotional school climate • Physical environment	Supporting safe and positive school environments
• Family engagement • Community involvement	Supporting the engagement of family and community

ASCD, Centers for Disease Control and Prevention. Available at: http://www.ascd.org/ASCD/pdf/siteASCD/publications/wholechild/wscc-a-collaborative-approach.pdf Accessed on July 7, 2015

WHOLE SCHOOL, WHOLE COMMUNITY, WHOLE CHILD MODEL
ACADEMIC ACHIEVEMENT

→ eta' 3-16 anni

Physical education/ physical activity
(4 meta-analyses, 15 systematic review, 9 unstructured literature reviews)

Nutrition
(2 meta-analyses, 9 systematic review, 3 unstructured literature reviews)

Health education
(6 systematic reviews, 2 unstructured literature reviews)

Pro-social behaviour **(Rasberry et al, Prev Med 2011)**

ACADEMIC ACHIEVEMENT: academic performance, educational behaviour, cognitive ability and attitude (attention, memory, mood …)

Hawkins et al, Arch Pediatr Adolesc Med 2008

PHYSICAL EDUCATION AND PHYSICAL ACTIVITY
(improved academic achievement, better concentration and attention, higher achievement tests score …)

PRO-SOCIAL BEHAVIORS
(improved cognitive performance, positive classroom behaviors)

NUTRITION ENVIRONMENT AND SERVICES (National School Lunch Program and School Breakfast Program)
(improved cognitive performance and attendance, increased academic grades, increased standardized tests score …)

HEALTH EDUCATION (health education curricula and instruction)
(nutrition, physical activity, tobacco, alcohol, drugs, sexual health, sleep, violence prevention, mental and emotional health)
(increased academic grades and test scores ….)

Low et al, Can Med Assoc J 2013; Busch et al, Rev Educ Res 2014; Esteban-Cornejo et al, J Sci Med Sport 2014; Shochat et al, Sleep Med Rev 2014; Michael et al, J School Health 2015

1) In the USA, Europe and Canada less than 4% of the public budget is spent on prevention (< 0.5% in Italy)
(Sullivan et al, Eur J Cancer 2012; OCSE, 2014)

2) A culture based on alcohol consumption, ultra-processed food, low physical activity, and long periods spent in front of a computer is now widespread, albeit with strong socioeconomics differentials
(Moodie et al, Lancet 2013)

3) Global styles of consumption fostered by changes in the economy are not counteracted by global preventive initiatives.

The benefit of prevention take time to manifest, and prevention needs ***LEADERSHIP*** and vision from policy makers *(Vineis and Wild, Lancet 2014)*

« *SCHOOL HEALTH PROGRAMS* ARE ESSENTIAL IF WE ARE

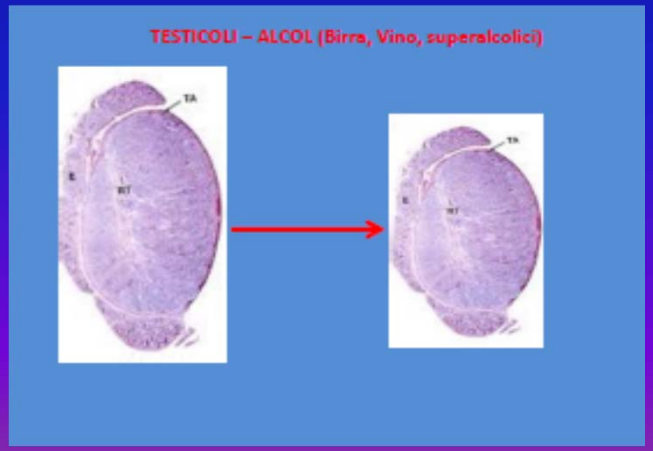
TO ATTAIN BOTH NATIONAL EDUCATION GOALS AND NATIONAL HEALTH

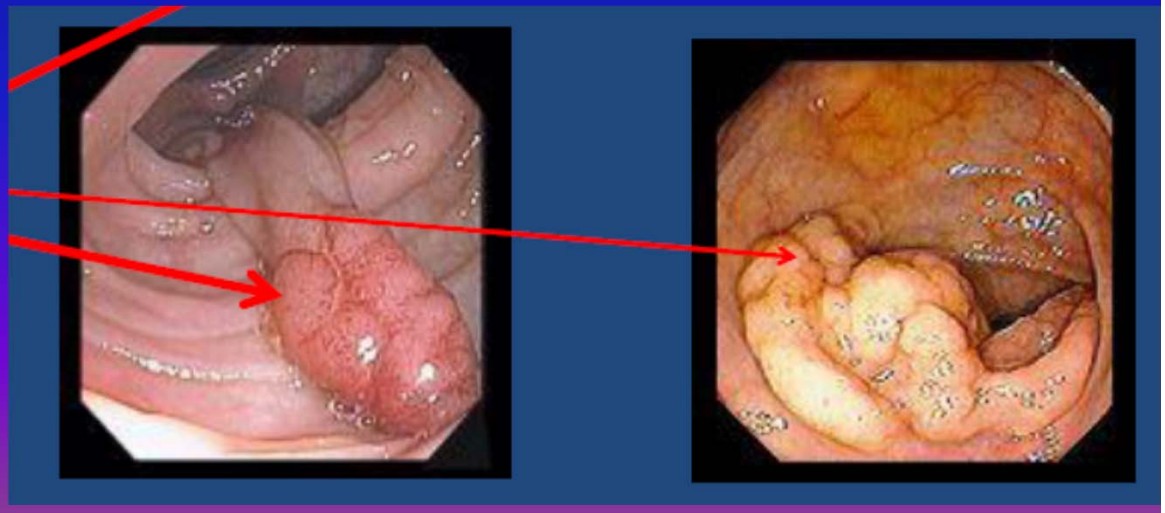
OBJECTIVES BY THE YEAR 2020»

Michael et al. Journal of School Health 2015

INFORMAZIONE ALL'ETA' GIUSTA

BERE ALCOL: E' VERO SUCCESSO ?





EDUCAZIONE

- Della famiglia
- Del bambino
- Dell’adolescente
- Della Società


1981
cos' è questa nota ?
2011
cos' è questa NOTA ?

DROGHE LEGALI/ ILLEGALI

A parita' di danno psico-fisico il senso comune del cittadino medio e' incline a considerare le sostanze legali con indulgenza, come sostanze Innoque e accettabili e a indignarsi solo di fronte ai limiti estremi, all'abuso.

Il cosiddetto abuso lede l'accettabilita' e la credibilita' sociale della persona (ubriachezza, alcolismo …)

Esistono consumatori di cannabis che fanno un uso sporadico di queste sostanze, la disapprovazione e la condanna dovrebbero anche in questo caso colpire soltanto l'eccesso e ai consumatori occasionali potrebbe concedersi la stessa indulgenza riservata al bevitore moderato di vino o birra

Le nostre abitudini mentali piu' radicate, il nostro linguaggio, la nostra ripugnanza resistono al paragone: non vogliono credere che derivati della cannabis, fumo, etanolo (vino, birra e superalcolici) a parita' di quantita' e nelle stesse condizioni di assunzione creino una quantita' di danni sovrapponibile

Baleani e Scapellato, Editori Riuniti, Roma: 2014

STILI DI VITA, CULTURA

DISINFORMAZIONE
IGNORANZA

INFORMAZIONI
ESEMPI

tradizioni/costumi
natura umana

CULTURA
NATURA UMANA

CULTURA
natura umana

Tradizioni/ abitudini tramandate per inerzia. Opinioni accolte acriticamente.

Liberazione dai costumi dannosi.
Si accede ad un corretto funzionamento del ragionamento.
Comportamenti maturi

Protezione che permette un miglioramento globale/ psico-fisico a 360°

Comportamenti affidabili non sopraffatti dalle emozioni e da abitudini magari piacevoli ma dannose

essere umano modellato come un capolavoro.
Da estetica dell'arte a estetica della salute

possibile opera incompleta, difettosa

Modificato da Remotti F., Fare Umanita', Ed. Laterza, Roma 2013

Percorsi neuro-sinaptici

-Esempi genitori
-Educazione
-Ambiente
-Scuola
-Sollecitazione a pensare criticamente
-Vita autentica/ libera

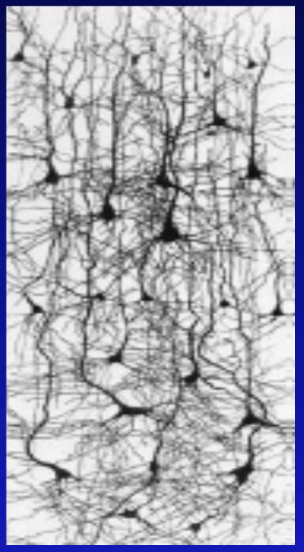
COSCIENZA/LIBERTA'/RESPONSABILITA?

STILE DI VITA SANO

AMORE/ SOLIDARIETA'

CAPACITA' DI PENSARE CRITICAMENTE

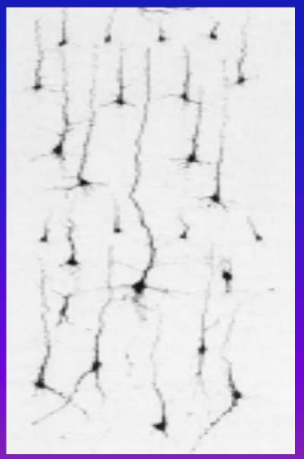
Volonta'/ Dignita'/ Giustizia



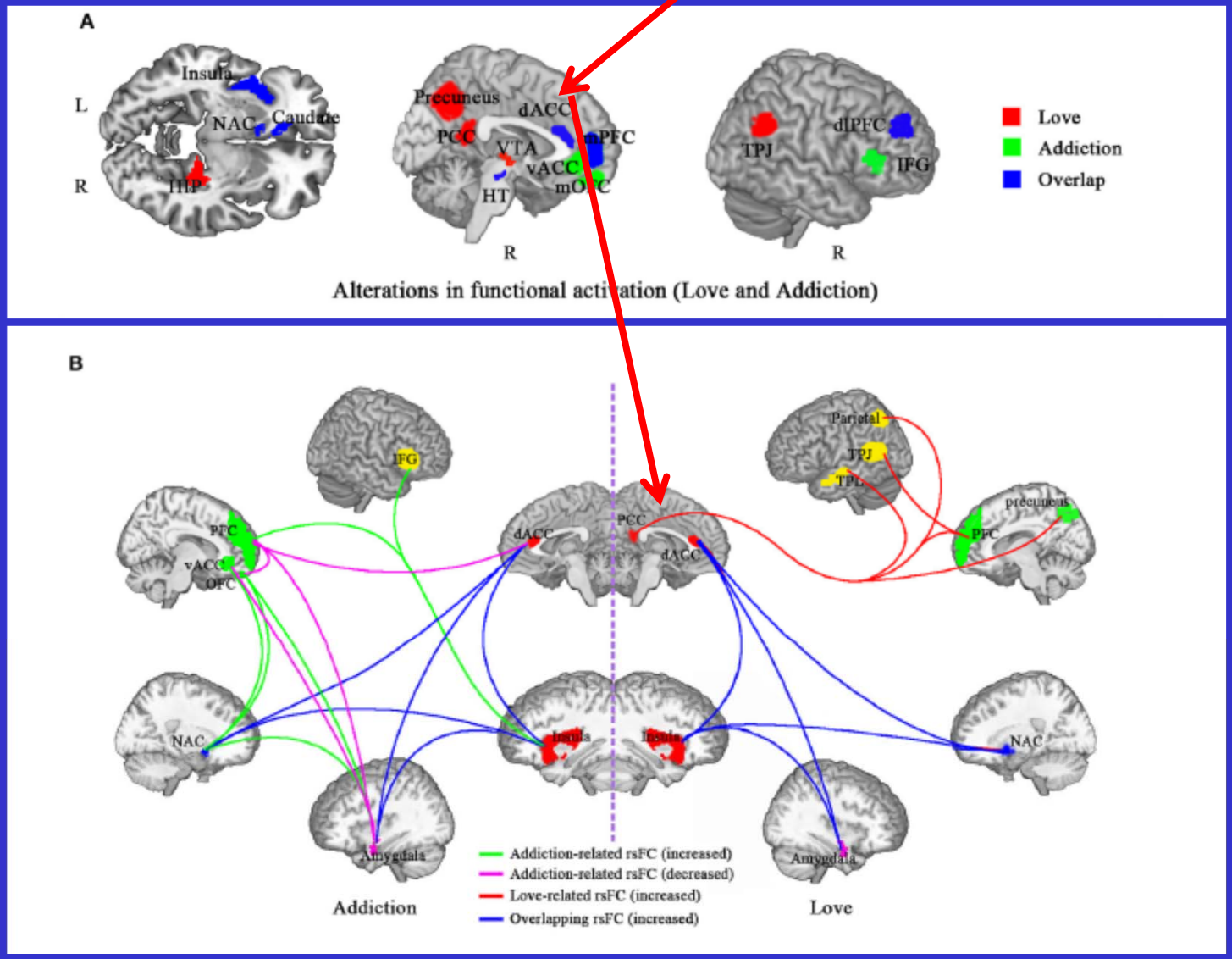
STILE DI VITA ERRATO

MEMORIA SOSTANZE/ COMPORTAMENTI

Perdita' Volonta'

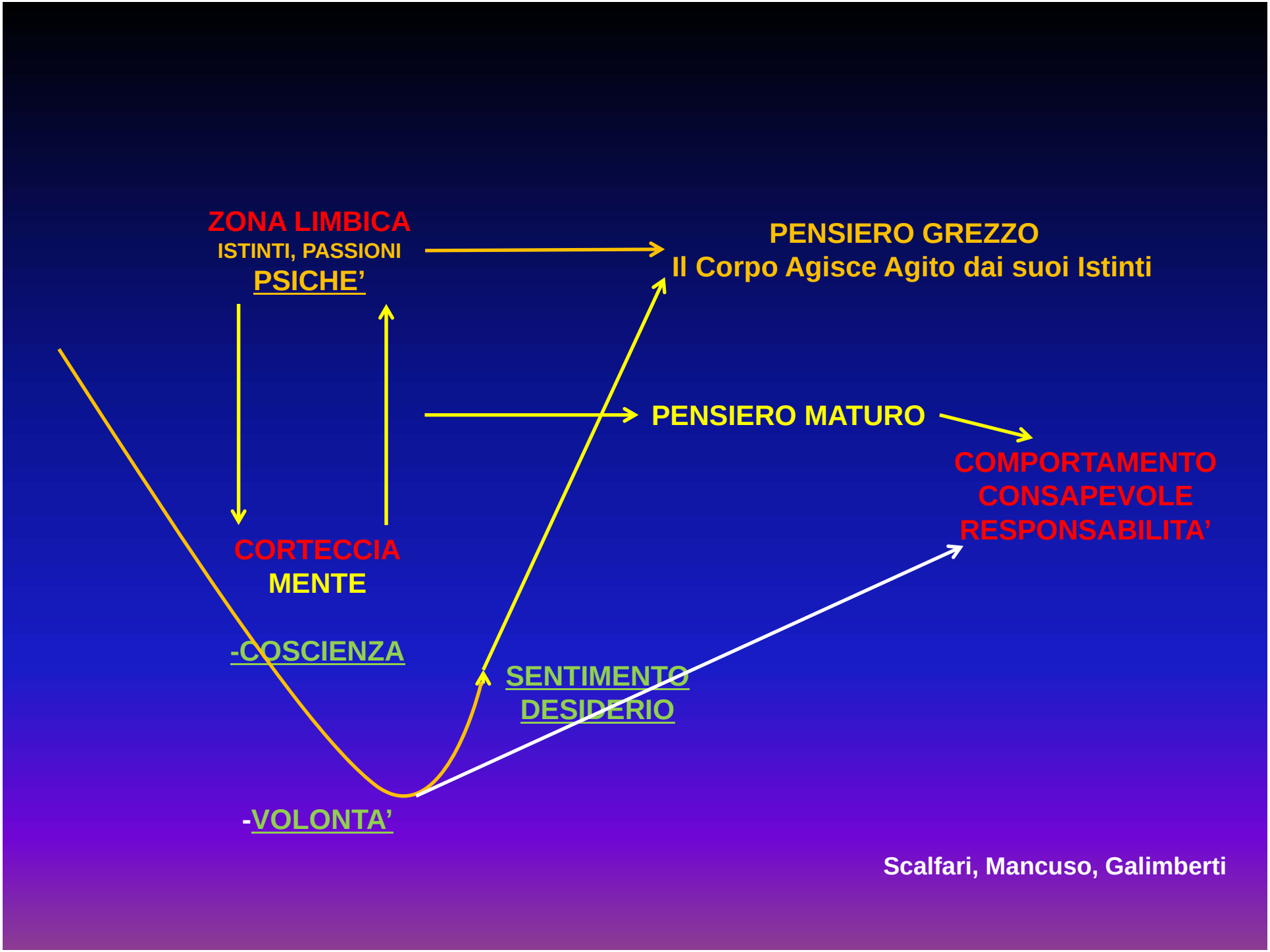


Iperattiva dACC: dorsal anterior cingulate cortex



LOVE/ ADDICTION

Zou et al, Frontiers in Psychology 2016


ZONA LIMBICA
ISTINTI, PASSIONI
PSICHE'
PENSIERO GREZZO
Il Corpo Agisce Agito dai suoi Istinti
PENSIERO MATURO
COMPORTAMENTO
CONSAPEVOLE
RESPONSABILITA'
CORTECCIA
MENTE
-COSCIENZA
SENTIMENTO
DESIDERIO
-VOLONTA'
Scalfari, Mancuso, Galimberti

PROGRAM TO PREVENT ALCOHOL AND OTHER DRUG USE AMONG ADOLESCENT

- ***UNIVERSAL*** **programs are designed for, and applied to, everyone in a given setting**

- ***SELECTIVE*** **programs are only delivered to specific adolescent based on their risk of developing a substance use disorder**

- ***INDICATED*** **programs are targeted at individuals who are experiencing early signs of substance use problems**

Newton et al, Drug and Alcohol Review 2017

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GENOVA | CRONACA — la Repubblica GIOVEDÌ 31 MARZO 2016 — XI

La città e la salute

PER SAPERNE DI PIÙ
www.hsanmartino.it
www.gadin.org

I ragazzi a scuola a San Martino "Alcol e droghe vi distruggono"

Invitati 200 studenti delle medie Sukkar, Alloisio, Testino e Viotti illustrano i pericoli per la salute

I PUNTI

L'ALCOL
È considerato uno dei principali fattori di rischio per alcune malattie. Ed è pericoloso alla guida

LE DROGHE
Verne sono alcune di nuova generazione ancora più devastanti. I danni possono essere irreparabili

LA COLLABORAZIONE
Tra il San Martino e l'Ufficio scolastico regionale la sinergia per coinvolgere i ragazzi delle scuole

ELISABETTA BUSSI

L'EDUCAZIONE a corretti stili di vita potrebbe diventare una materia di studio a scuola, per adesso un progetto, poi si vedrà.

Intanto ieri mattina al Centro Congressi del San Martino davanti a una platea di circa duecento ragazzi delle medie inferiori c'erano Samir Sukkar, direttore di dietetica e nutrizione, Antonella Alloisio, dirigente della chirurgia toracica, Gianni Testino, epatologo e coordinatore del Centro

IL MESSAGGIO
I corretti stili di vita in età adolescenziale prevengono i tumori in età adulta e avanzata
GIANNI TESTINO

nitaria Patrizia Balbinot: «Se

un video presentato da Suk-

Altri tre incontri previsti

ne 12 grammi di etanolo al

molecolari modificate da soli-

GENETIC INFLUENCES ON ADOLESCENT BEHAVIOR

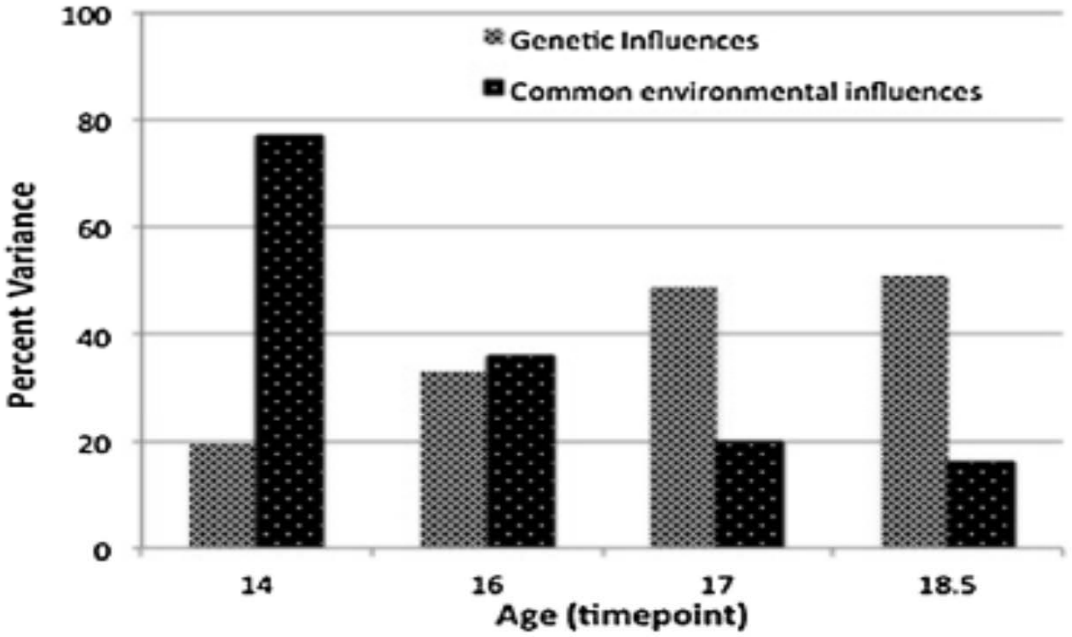

Fig. 1. Data from the Finnish twin studies demonstrating the changing degree of genetic and environmental influences across adolescence (Rose et al., 2001a; Rose et al., 2001b): genetic influences become more important, and common environmental influences become less important.

DRD4, OPRM1, CHRNA2, CHRNA4, GABRA2, C1QTNF7: chromosomes 11-13…….

Rose et al, Alcohol Clin Exp Res 2001

GENETIC INFLUENCES ON ADOLESCENT BEHAVIOR

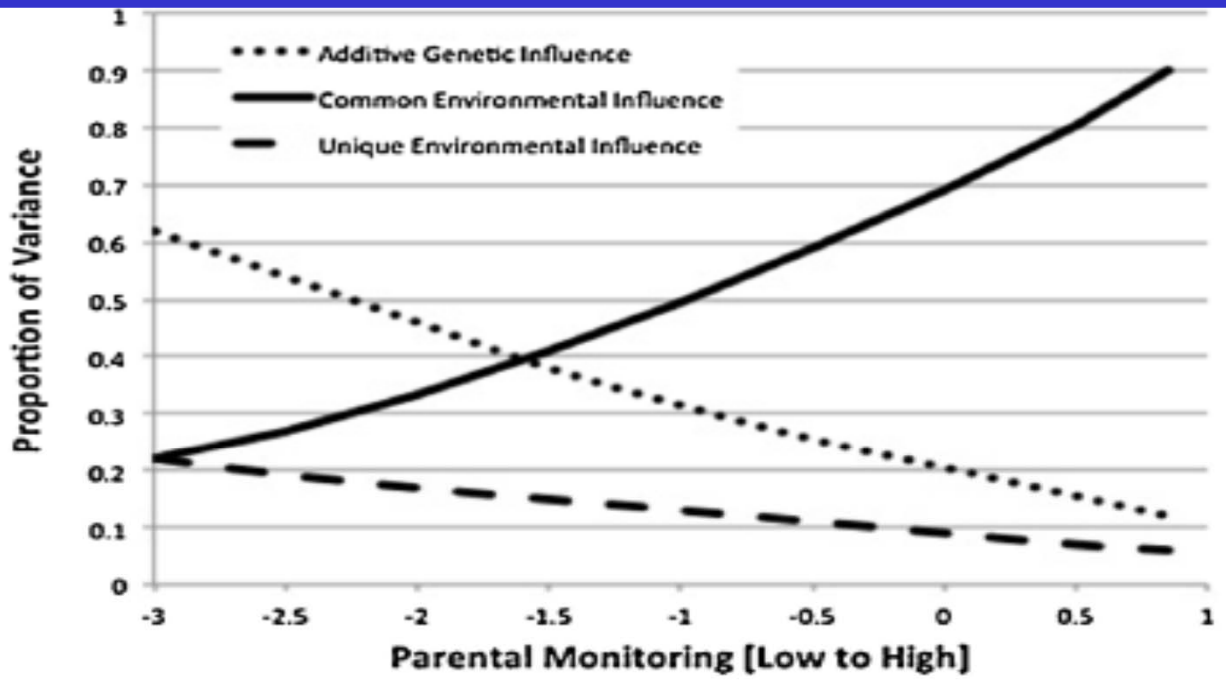

Fig. 2. Changing influences on age 14 smoking frequency as a function of parental monitoring (Dick et al., 2007b). As parental monitoring increases, genetic influences become less important, and common environmental influences become more important.

Dick et al, Neuroscience and Biobehavioral Review 2016

FELICITA’

Orientamento Edonista: «felicita’ nel piacere» (Aristarco, IV secolo a.C.)

Orientamento Eudaimonista: «felicita’ nella vita virtuosa» (Aristotele, IV se. A.C.)

- Il benessere interiore scaturisce dalla espressione della persona nelle virtu’.
- Libera e responsabile iniziativa dell’individuo che utilizza la propria volonta’ per raggiungere la vita virtuosa.
- **Invito a non ridurre la felicita’ al semplice piacere/consumismo**
- Alcol e droghe impediscono che la persona governi la propria vita
- Alcol lo impedisce anche a bassi dosaggi (sostanza psico-attiva)
- Anche se alcol e droghe non producessero effetti nocivi: il loro uso contraddirebbe sempre in maniera radicale con la dignita’ della persona !!!

Baleani e Scapellato, Editori Riuniti, Roma: 2014
Gianni Testino, Il Pensiero Scientifico Editore, Roma: 2013

FELICITA’

Liberta’ nell’uso della volonta’, coscienza di se’ e della realta’
nell’uso dell’intelletto.

La felicita’ non viene dall’esterno, cioe’ da una sostanza che produce effetti chimici (ILLUSIONE !!!).
Viene dall’interno, cioe’ **dall’interiorita’ (SPIRITO ?)** dell’essere umano
che si esprime attraverso atti di *intelletto, di volonta’ , solidarieta’ e di amore*.

PERCHE' DIFENDERE LA PROPRIA SALUTE ?

Per il credente: difendere cio' che ci e' stato donato

Per il non credente: ***assunzione di responsabilita'***

Se Gesu' venisse oggi …..

Se Gesu' fosse oggi, fisicamente, presente tra di noi, non andrebbe solo
a scacciare venditori e cambiavalute, ma andrebbe nei punti vendita di alcol
e trasformerebbe alcol in succhi di frutta …..

Paolo Farinella, prete


Grazie