

“Alcohol intoxications in adolescents over the years 2007 – 2016”

A longitudinal study in all Dutch Hospitals

N. van der Lely MD PhD

Reinier de Graaf Hospital, Delft, the Netherlands
Grants: Ministry of Health, Welfare and Sport,
DSW, Health insurance company



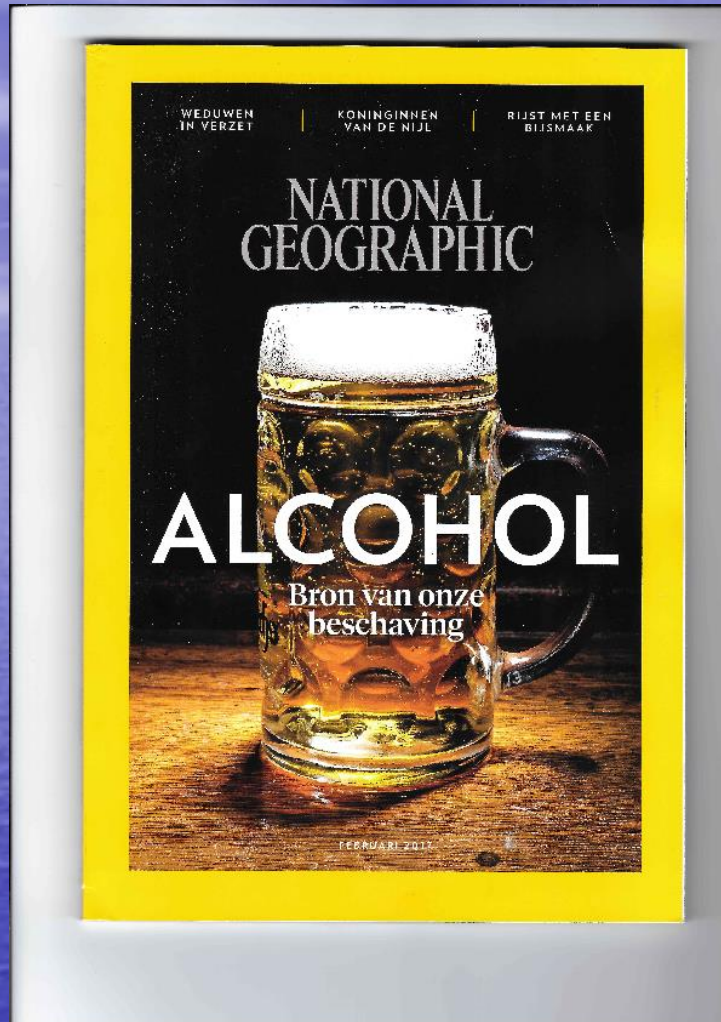
Not crack or heroïne, but alcohol
has the most negative impact on
society

The Lancet 2010

THE LANCET

Volume 376 - Number 9734 - Pages 1-68 - July 3-9, 2010

www.thelancet.com



Februari 2017

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Past

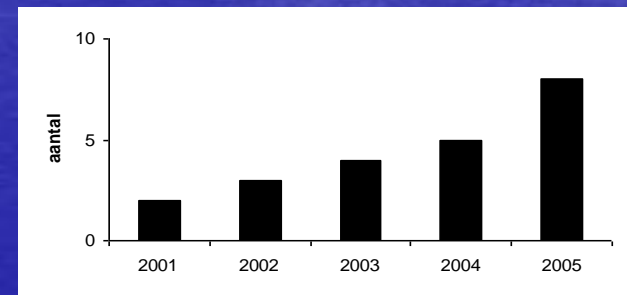


“Youth and alcohol intoxication, a growing problem”

- Younger
- Girls
- Home
- Different liquors
- Blood alcohol level higher

- NTVG, december 2006
- British Medical Journal december 2006

Delft Study





Done

Need knowledge



**Need more data
and ...**

Need to stop the increasing number of admissions

Created

- **Dutch Pediatric Surveillance System (NSCK)**
- **Prevention Intervention System (PIS)/ Pediatric Alcohol Polyclinic**

'Pediatric Polyclinic for Youth and Alcohol' in Delft

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PIS

- **Collaboration Pediatric and Neuropsychological activities**
- **Uncover underlying pathology**
- **Prevent repetition of admission**
- **Transfer of knowledge to child and parents**
- **Investigates damage of alcohol on the brain**

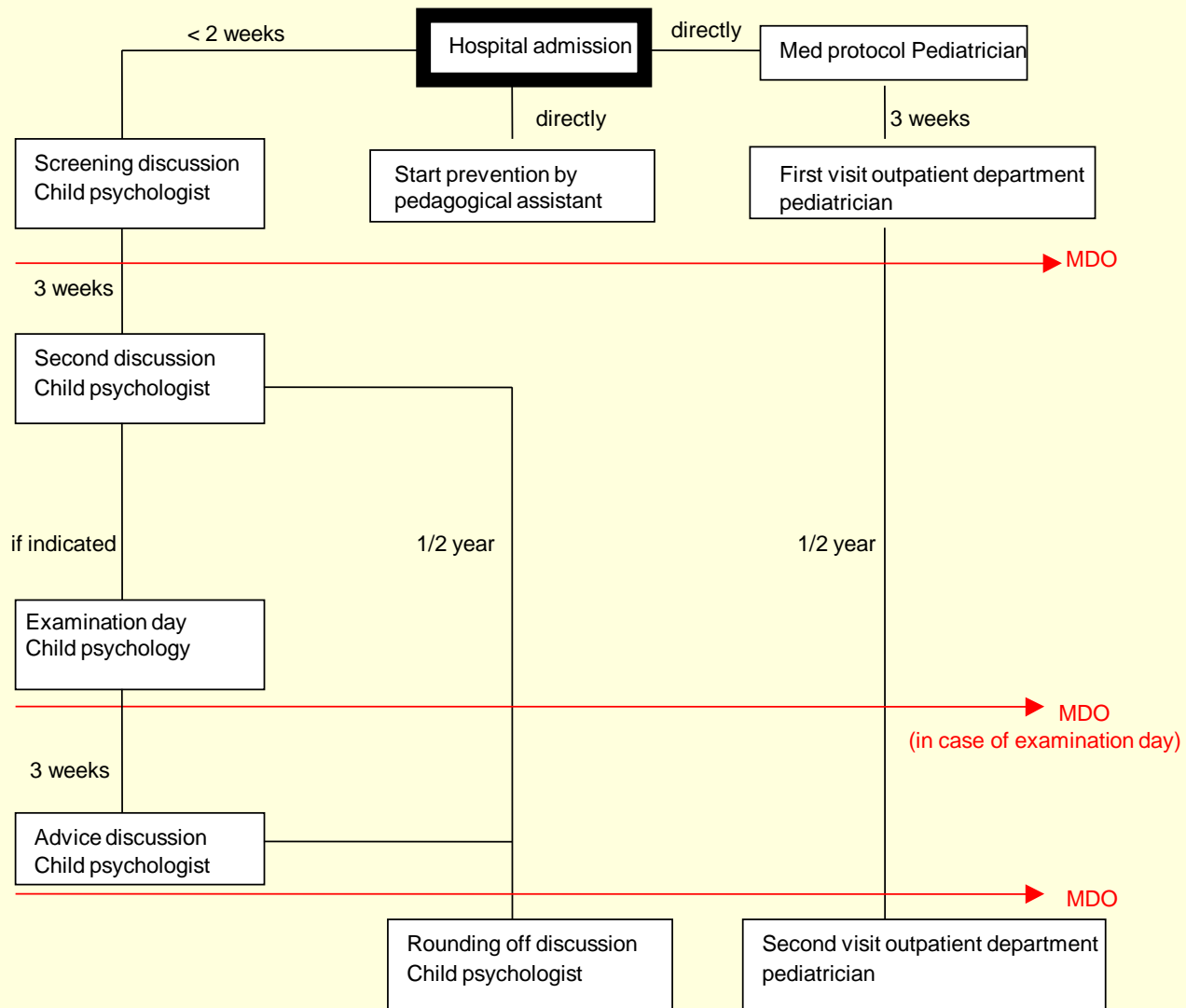
Harmful aspects of alcohol, short term

- **Alcoholintoxication and 'hang out'**
- **Agression**
- **Sexual risk behavior**
- **Alcohol correlated accidents**

Harmful aspects of alcohol, long run

- **Damage cognitive potential**
- **Second hospitalization; 42 % 'IQ drop'**
- **Increased risk alcohol problems later in life (4 – 6 x)**
- **Increased risk alcohol problems for their posterity (eg. FAS)**

Prevention Intervention System



LEEWARDEN

HOORN

DELFT

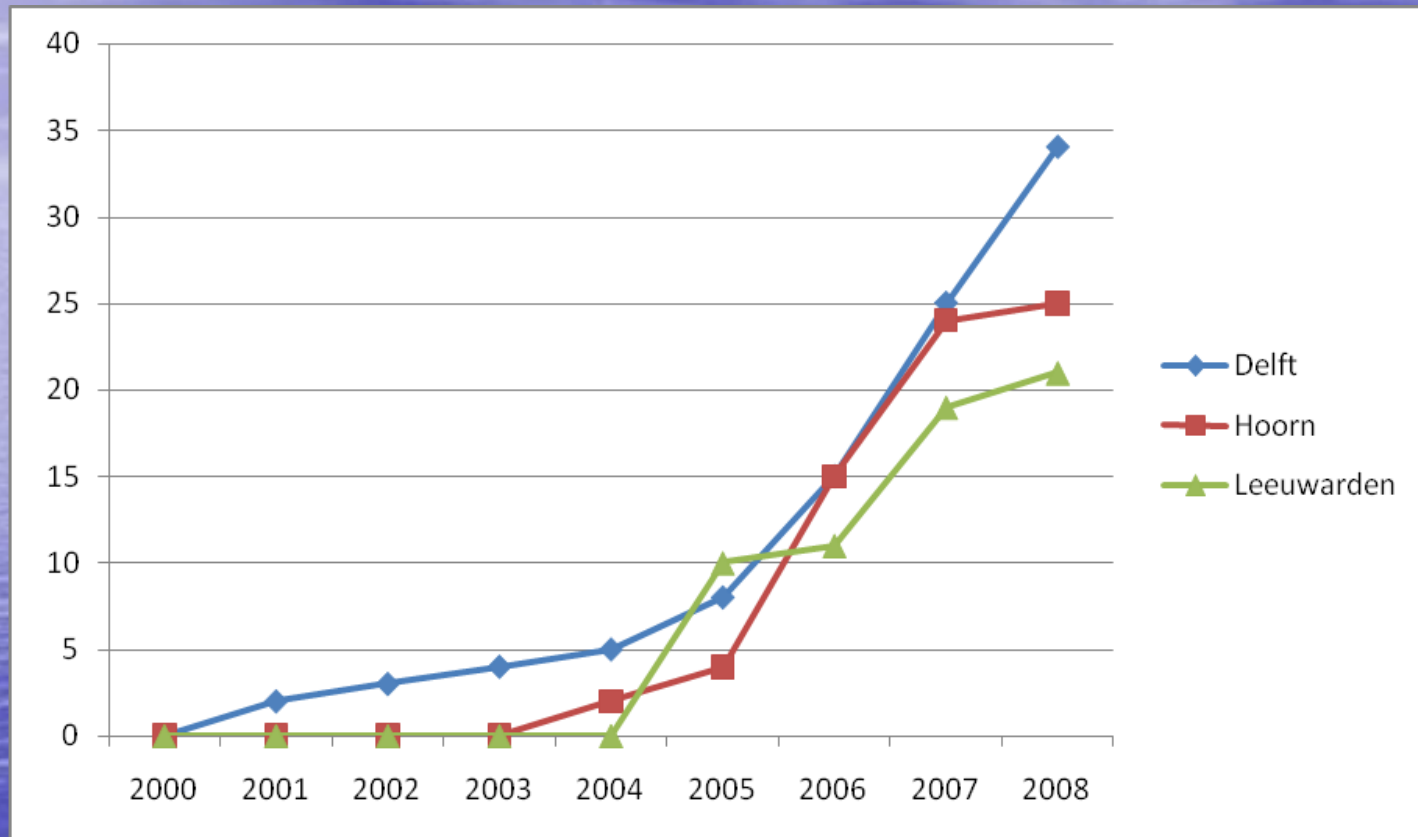


EINDHOVEN

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Number of admitted alcohol intoxications



Research Awareness Advisory

Research



Risk factors for brain damage secondary to alcohol abuse

- **Sexe (girls !)**
- **Co morbidity ADHD/ Autism**
- **Starting age**
- **Drink pattern (binge)**
- **Other drug abuse**
- **Addiction problems among parents/ family**



Alcoholintoxicatie bij jongeren

Absolute opname indicaties:

- < 15 jaar
- Promillage > 1.5‰
- Verminderd bewustzijn
- Verdinking drugsgebruik
- Secundair letsel
- Hypotensie
- Hypothermie (< 36°C)
- Elektrolystoornissen



Opvang volgens apts, let alcoholspecifiek op:

1. Aspiratie na braken
2. Aanvullend onderzoek: alcoholpromillage, bloedgas, glucose, natrium, chloor, gamma-GT, CDT, ECG, urinetoxicologie
3. Gelijktijdig medicijn- of drugsgebruik
4. Seksueel misbruik
5. Pre-existente of recente psychosociale problemen (z.o.z.)
6. (Kinder) Mishandeling
7. Bij 2e alcoholintoxicatie: melden bij AMK!

DENK BIJ ADOLESCENTEN ALTIJD AAN ALCOHOL & DRUGS!



Reinier de Graaf Groep

Interessante feiten

Risicofactoren voor hersenschade:

- Meisje
- Binge-drinken
- Jonge leeftijd ie drankje
- Onderliggende psychologische problematiek
- Familiair alcoholmisbruik
- Drugsgebruik

Risico's alcoholintoxicatie korte termijn:

- Black outs
- Hypotensie
- Hypoglykemie
- Elektrolystoornissen
- Secundair letsel
- Seksueel ongewenst/risicovol gedrag
- Agressie

Risico's alcoholintoxicatie lange termijn:

- Cognitieve en geheugenstoornissen
- Schoolproblemen
- Schade nageslacht
- Verhoogde kans op kanker en alcoholverslaving

Psychosociaal beleid

Alcohol bij adolescenten is sterk gerelateerd aan:

- Psychiatrie: ADHD, autisme, depressie, tentamen-suicide
- Gezinsproblemen
- Schokkende gebeurtenissen
- Leerproblemen
- Verslaving

Arts/vpk:

- Houd rekening met seksueel misbruik
- Houd rekening met psychosociale problemen
- Veroordeel de jongere niet

Ouders:

- Geen alcohol onder de 18 jaar
- Niet thuis leren drinken
- Verbieden en grenzen stellen helpt
- Voorbeeldgedrag ouders is belangrijk
- Dringend advies het nazorgtraject te doorlopen

Het Reinier de Graaf is expertisecentrum.
Meer informatie over het nazorgtraject en het protocol op:
www.polikliniekjeugdentalcohol.nl

Awareness

Drinking pattern



Gold like cinnamon liqueur
Brewed by the firm Lucas Bols.

Alcohol percentage of 50%

Info for the parents



November
2011

DE ALCOHOLVRIJE PUBER EEN PRAKTISCHE GIDS

verschijnt in oktober bij Nieuw Amsterdam Uitgevers en is verkrijgbaar in de boekwinkel en bij www.nieuwamsterdam.nl

€ 17,95
ISBN 978 90 468 1591 5
Verschijnt in oktober
208 blz.

N^WADAM

Alcohol is cool en mag op een beetje feest niet ontbreken. Vinden pubers, en beweren ook de drankreclames. De overheid probeert met wet- en regelgeving jonge burgers te beschermen tegen de ernstige schade die alcohol veroorzaakt. Ouders weten vaak niet wat ze met drinkende kinderen aan moeten. Want wat is de juiste balans tussen vrijheid en bescherming? Trek je je iets aan van de mening van andere ouders? Hoe weet je zeker dat je kind niet drinkt?

Dit nieuwe boek van de oprichters van de alcoholpoli is een praktische gids met tips en trucs, beknopte achtergrondinformatie en interviews met onder meer een bekende alcoholvrije sporter, danser, dj en presentator. Geen gepreek, geen ingewikkelde medische verhandelingen, maar adviezen waar ouders echt iets aan hebben, zoals een modelcontract voor ouder en kind, een voorbeeld van een eenmalig goed gesprek en een checklist voor controle op alcoholgebruik.

'Niet alleen noodzakelijk leesvoer voor opvoeders, maar ook een eyeopener voor menig zorgverlener.'
Medisch Contact
over Onze kinderen en alcohol

Nico van der Lely is kinderarts in het Beatrix de Graaf Ziekenhuis in Delft. In 2004 opende hij met Mireille de Visser de polikliniek Jeugd & Alcohol. Mireille de Visser (midden op de foto) is kinder- en jeugdpsycholoog. Joke Ligterink is toekatschrijver en schreef met Van der Lely en De Visser *Onze kinderen en alcohol*.

October 2013

NHS

DRINKING CAUSES DAMAGE YOU CAN'T SEE

You could be 3 times more likely to have a stroke if you're a man regularly drinking more than 2 pints of strong lager a day. You also increase your risk of high blood pressure and mouth cancer. Find out if your drinking could be putting your health at risk.

For more information visit nhs.uk/drinking or call 0300 123 1059

3-4	2-3
-----	-----

STROKE

NHS

DRINKING CAUSES DAMAGE YOU CAN'T SEE

You're twice as likely to have high blood pressure, which could lead to a stroke or a heart attack, if you're a woman regularly drinking 4 or more glasses of wine a day. You also increase your risk of getting breast cancer or osteoporosis if your drinking could be putting your health at risk.

For more information visit nhs.uk/drinking or call 0300 123 1059

3-4	2-3
-----	-----

STROKE

NHS

DRINKING CAUSES DAMAGE YOU CAN'T SEE

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3-4	2-3
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STROKE

NHS

The latest Government alcohol campaign is aimed at those people who think they might be drinking sensibly. A survey said people drank most heavily at home

NHS 2010

The Daily Telegraph January 29, 2010

Advisory



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EINDHOVEN

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DELFT



EINDHOVEN

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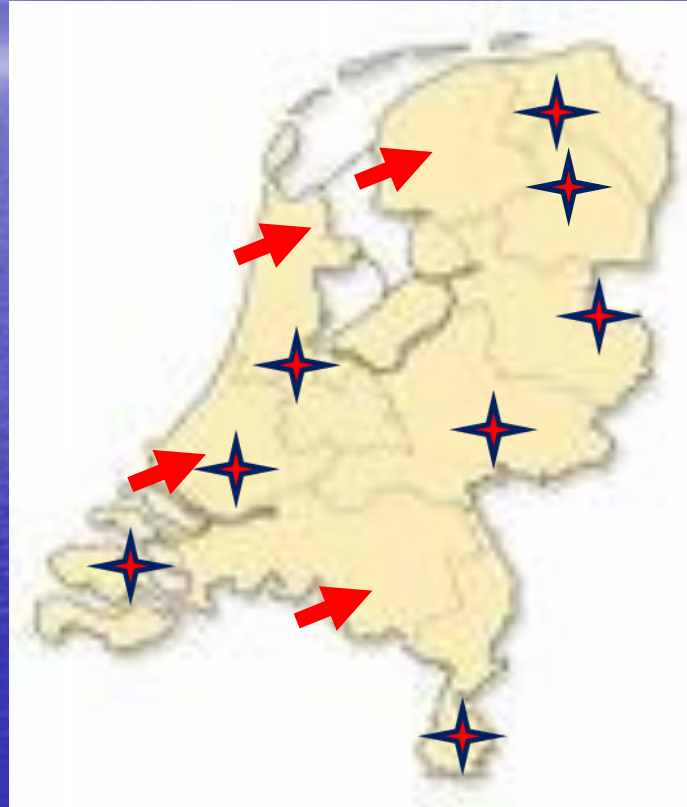


EINDHOVEN

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Awareness

Our policy focusses on

- Children (“Self control”)
- Parents (“Social control”)
- Authorities (“Formal Control”)
“Law makers en enforcement
personnel”

Concerning “Social control”

- Parents should drink less! (imitation effect)
- Start drinking at younger age **WITH** child = bad!
- Influence parents reaches further than 16 yr !

- Prof. RCME Engels, Orthopedagogiek AZN



Concerning “Social control”

- Association between alcohol en parties from > 4 jaar **
- Start drinking at home, acceleration in drinking later in life (**7 years**)

** Morres et all 2013



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Oh Oh
Ehezzo



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Research



Data!

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Dutch Pediatric Surveillance System (NSCK)



Results NSCK Nationwide

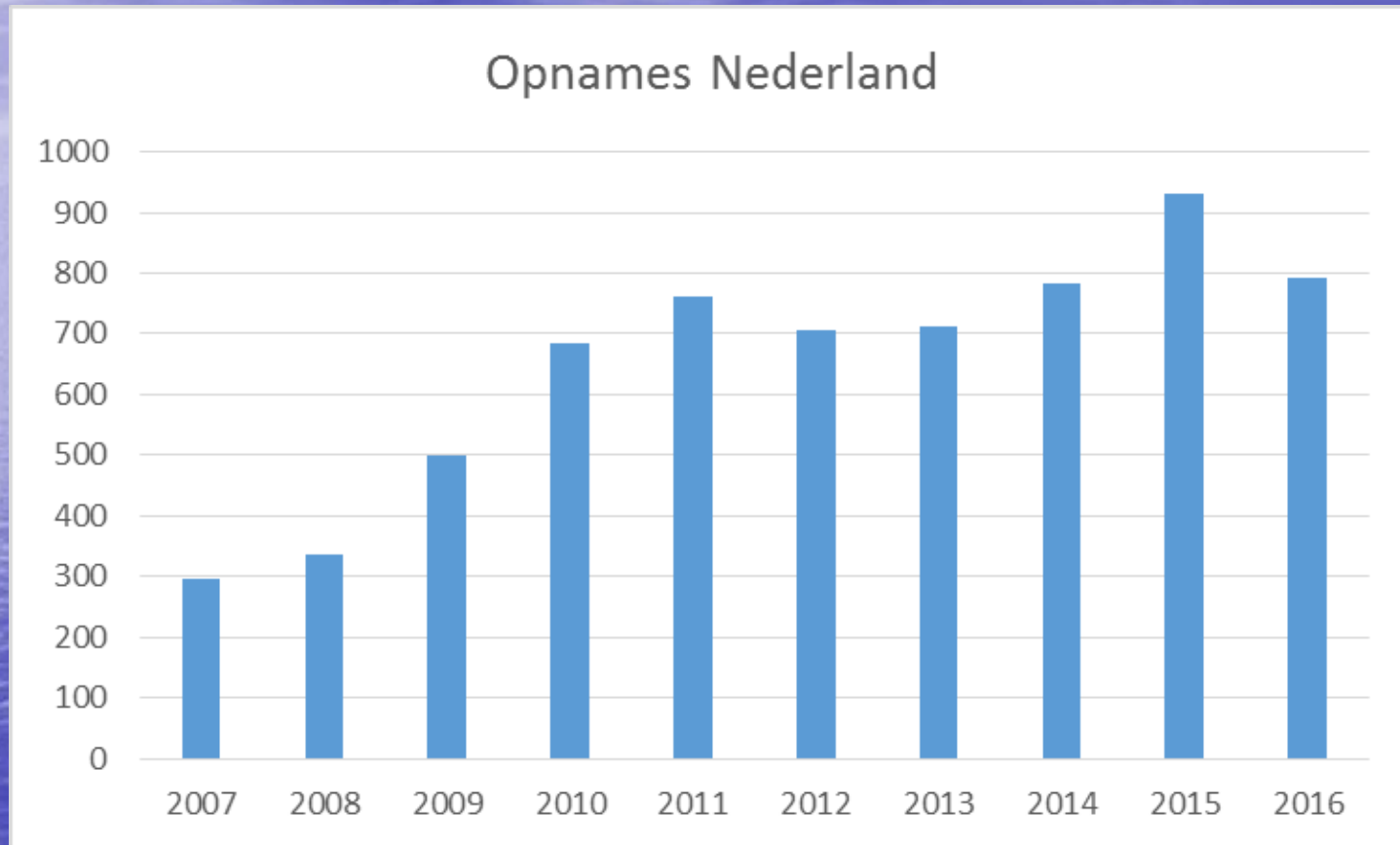
- **General and demographic**
 - Family situation/ school performance
 - Culturale background
- **Info of the hospitalization**
 - Blood alcohol level
 - Usage of other medication/ drugs
- **Background of the patiënt**
 - ADHD? Autisme?
 - Parental involvement



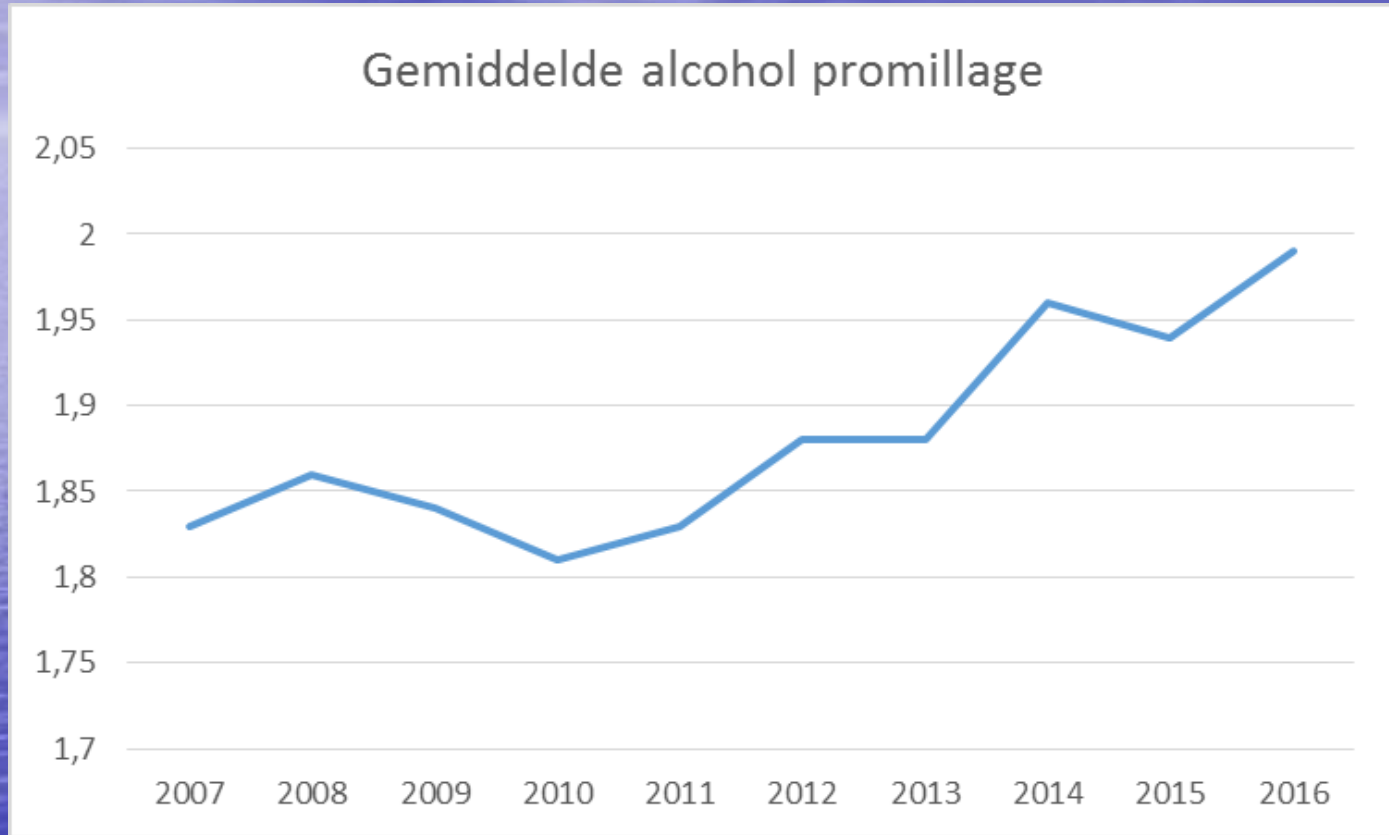
België

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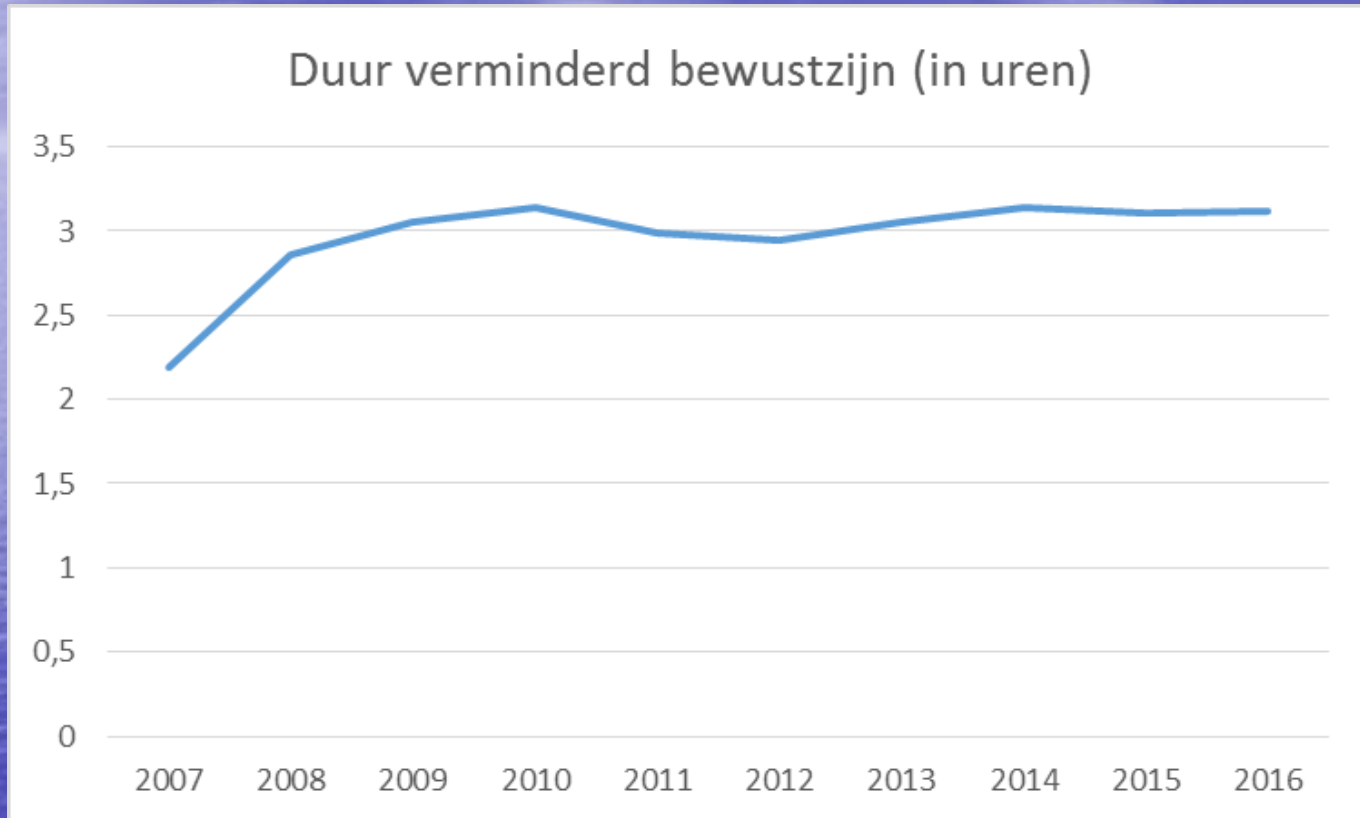
Total number of admitted alcohol intoxications



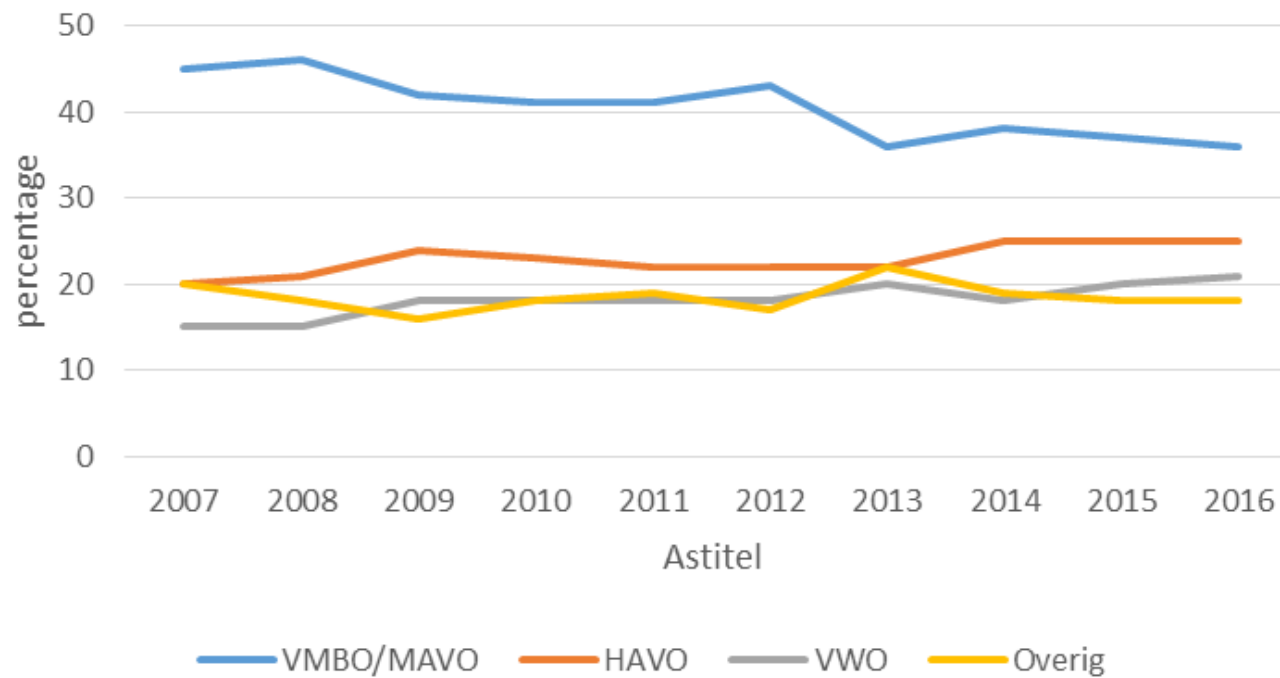
Mean BAC (gr/L)



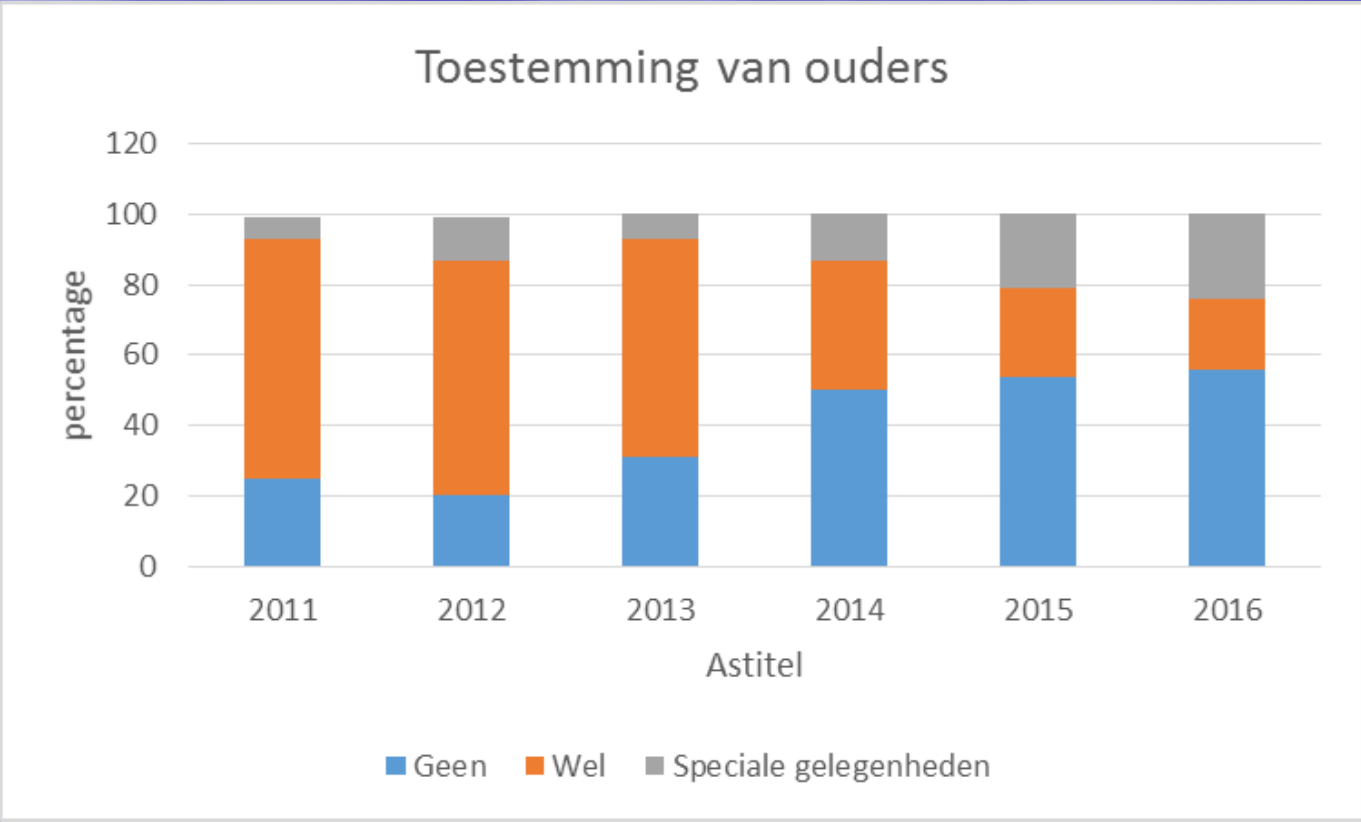
Duration (hr) of unconsciousness



Schoolniveau



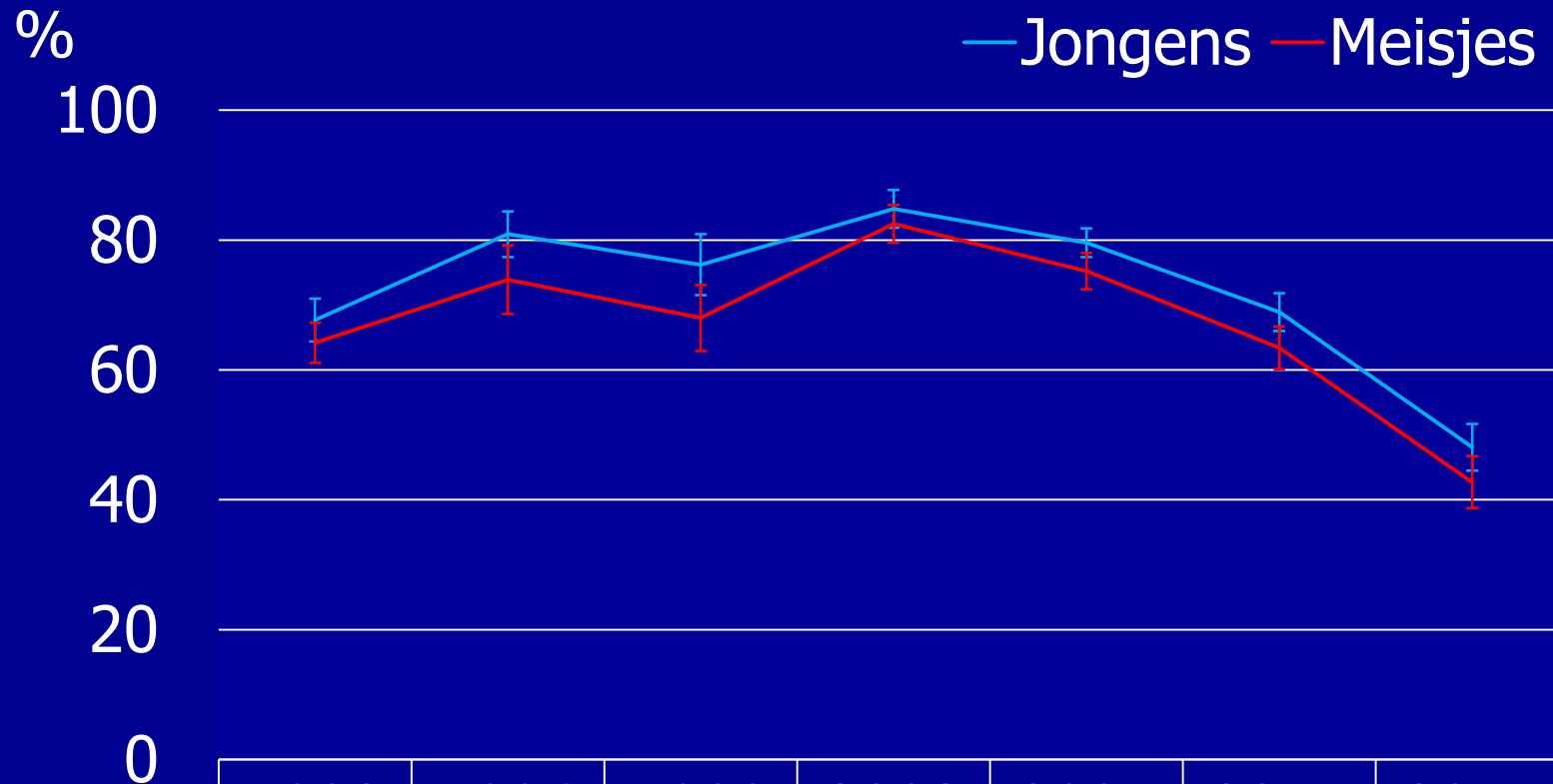
Parenting permission to drink under 18 yr



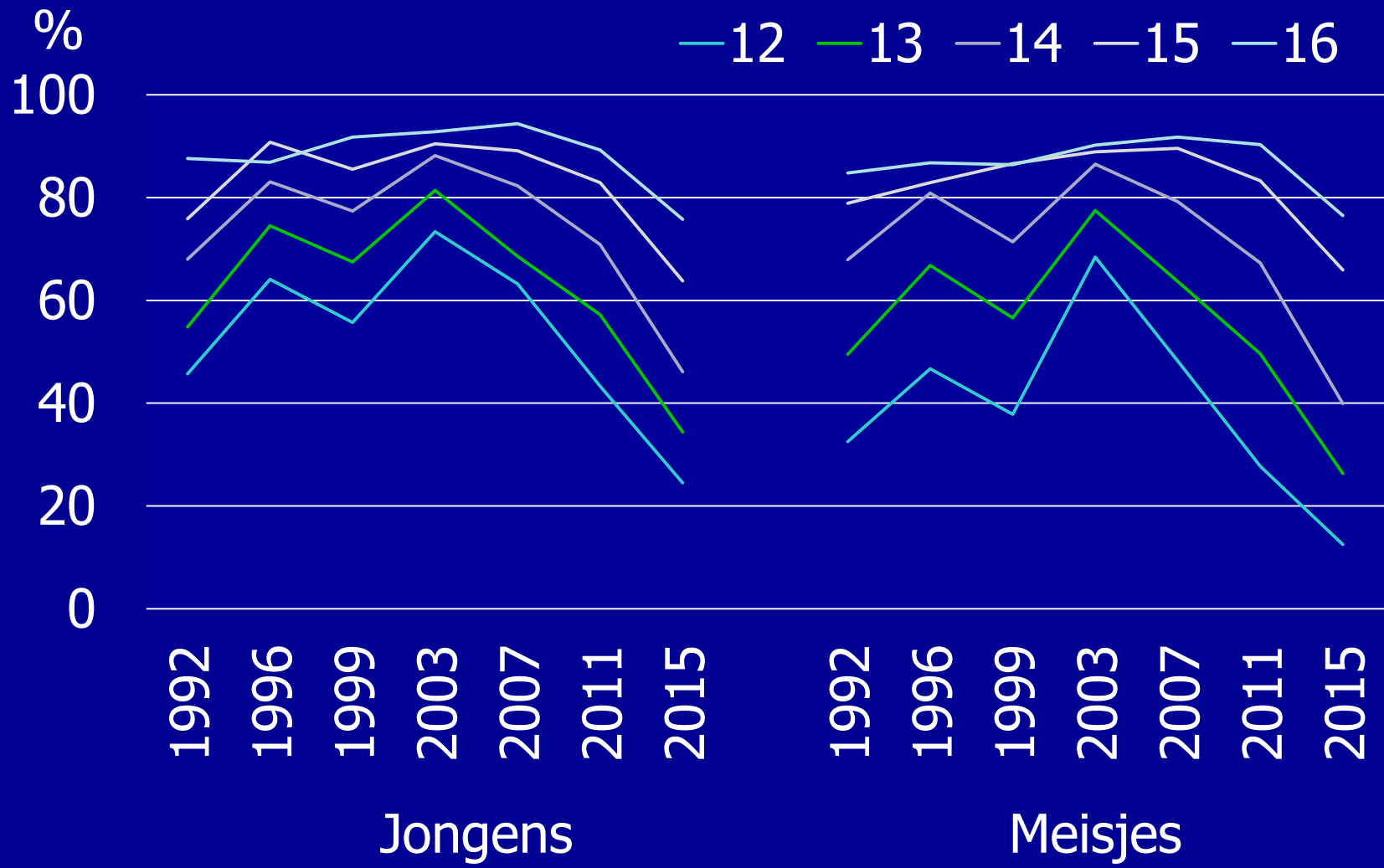
**Trimbos Institute 2016
Research among 12 – 16
olds in the general
population (schools)**



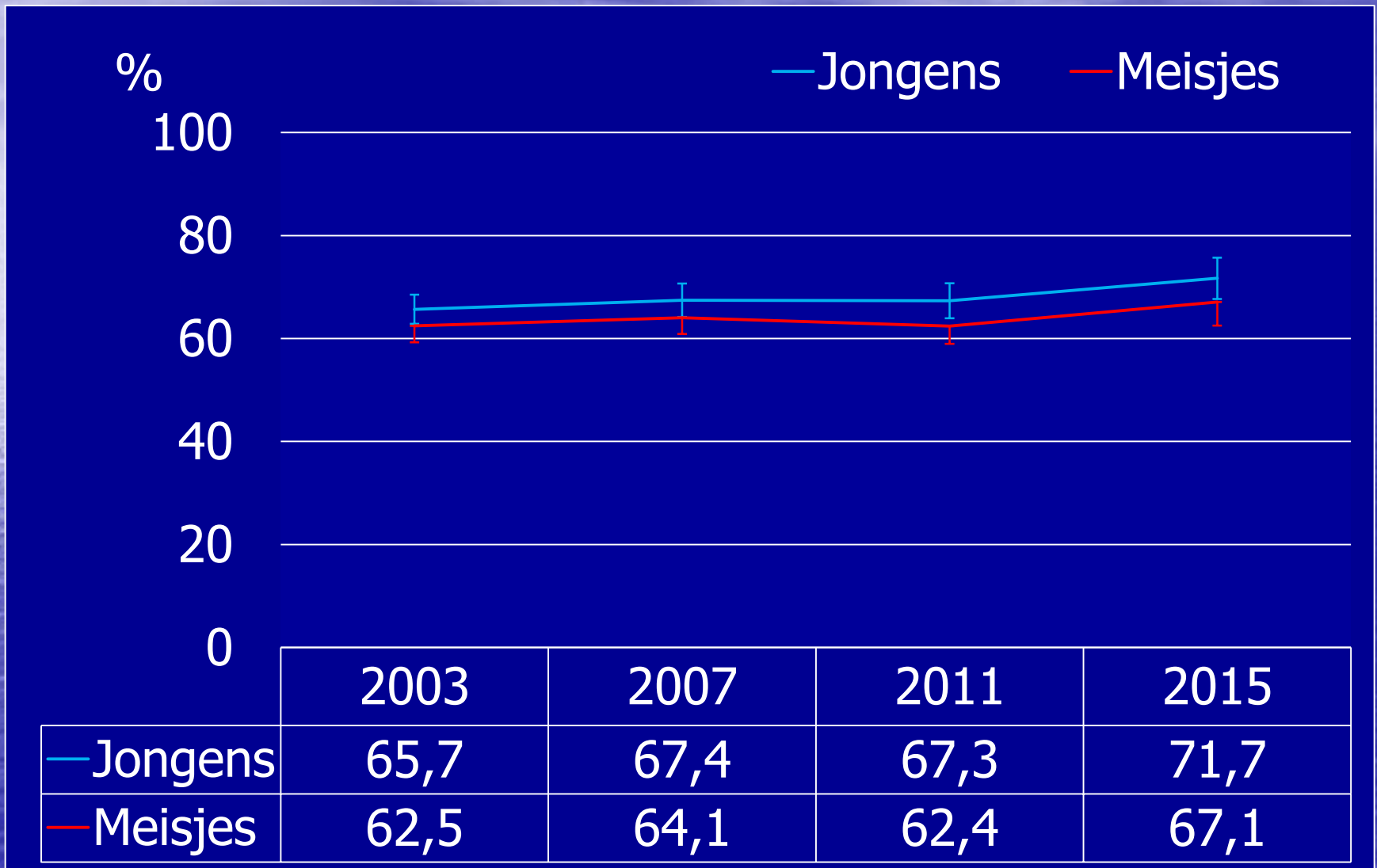
Less children have experience with alcohol



	1992	1996	1999	2003	2007	2011	2015
— Jongens	67,7	80,9	76,2	84,8	79,6	68,9	48,1
— Meisjes	64,2	73,9	68,0	82,5	75,2	63,4	42,7



Binge drinking among children who already drink is stable



Research

• **Alcohol gen "AUTS2" ****

• **Damage +, than 5 x more risk of abuse later in life**

**** Brenda Penninx, Prof.
Psych Epidemiologie VU, April 2011
AD 150411**

•Alcohol gen **"AUTS2"** **

•Schade +, d
op meergeb





Cancer

3 % women
10 % men



051014 NPO 2

Madlen Schutze et al
Alcohol attributable burden of incidence of
cancer in eight European countries.
BMJ 070411
Volkskrant 160411





Example of campaign poster



THE FACTS ABOUT ALCOHOL AND YOUR HEALTH

Long term alcohol consumption can result in a **deficiency of vitamin B1** which can lead to the development of

LONG TERM BRAIN DAMAGE^{2,3}

1 IN 11 PEOPLE

with alcoholism develop a **severe brain condition**



called **Wernicke's Encephalopathy**, however this figure could be higher as some people are not diagnosed⁴

ALCOHOL causes around

4% of cancer cases in the UK every year - that's around **12,500 cases⁵**

There is an increased risk of

CORONARY HEART DISEASE

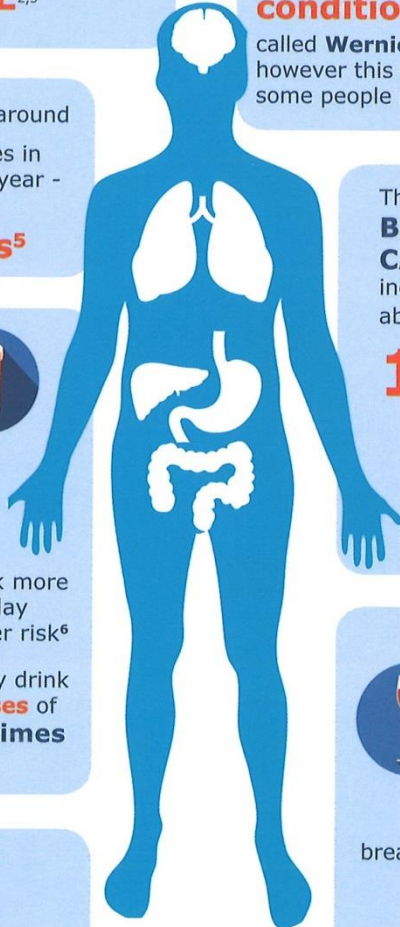
for both men and women⁶



MEN who regularly drink more than **3 pints** of cider a day have a **1.7 times** greater risk⁶

WOMEN who regularly drink more than **2 large glasses** of wine a day have a **1.3 times** greater risk⁶

Studies have shown that drinking **ALCOHOL** can affect male and female **fertility^{7,8}**



The risk of **BREAST CANCER** increases by about

12%

for each **10 grams of alcohol** you typically drink a day, that's about a **single shot of spirit⁹**



Drinking **ALCOHOL** can increase your risk of several types of **CANCER**,



including liver, bowel, breast, mouth, oesophageal cancer (food pipe) and laryngeal cancer (voice box)⁵



Sept 2016



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Sept 2016



A blue sky with light clouds over a blue ocean with a sun reflection.

What remains for me...

Back to Delft....

Research Awareness Advisory

Cooperation

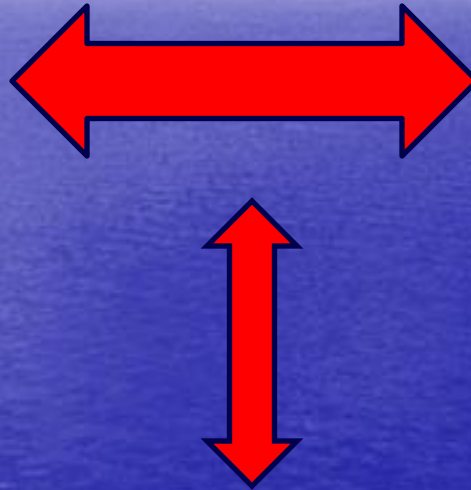
To prevent....







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Enjoy the alcohol !

Drink it



Summarize

- **Development concerning alcohol and youth in Delft, our research/ data.**
- **Policlinic Youth and Alcohol**
- **Cooperation with other groups in the field, police, sport clubs**

Thank for your attention !





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Research

Effects of alcohol on children

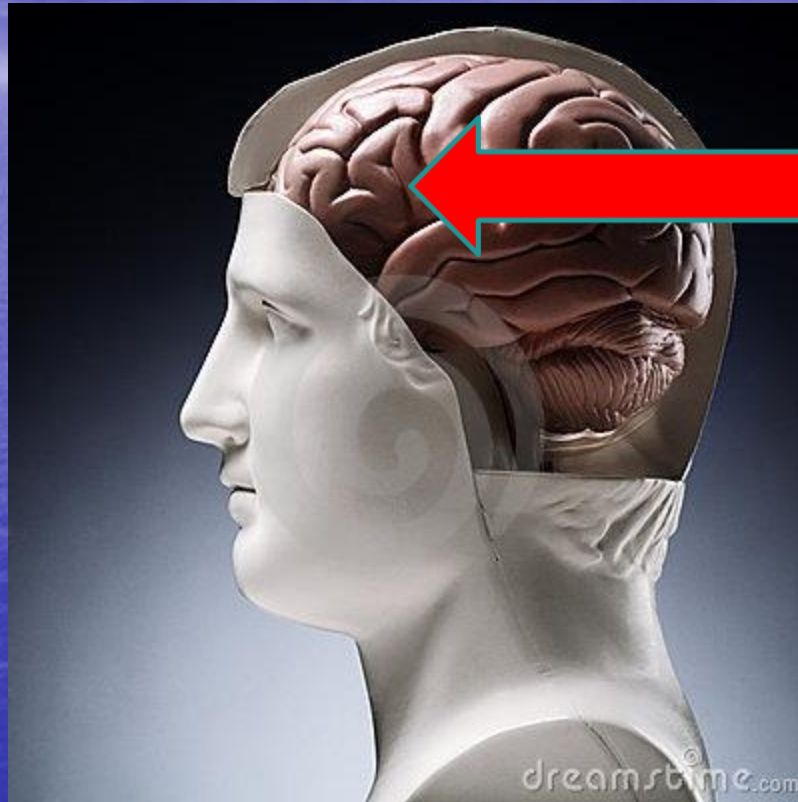
- 'Out ' much faster than adults
- Superficial breathing pattern
- Less frequent 'drunken man walk'

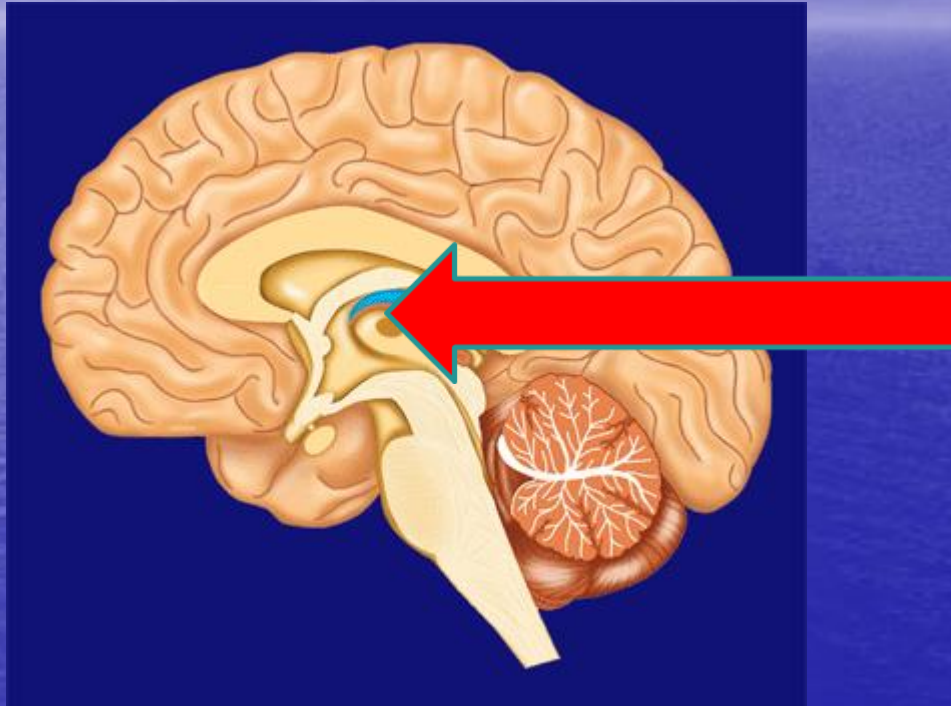
Research showed us:

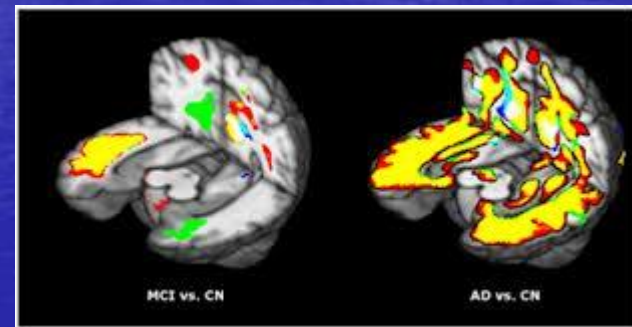
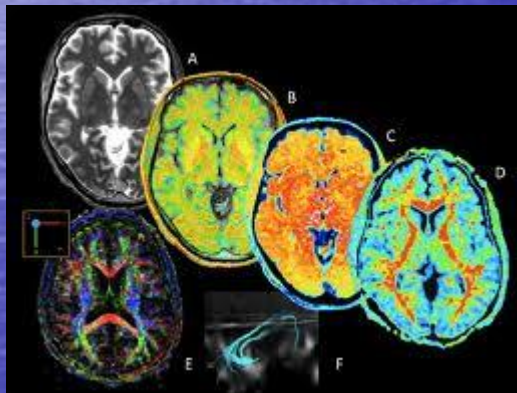
- Brain damage* when
 - A. Drink a lot
 - B. Drink often
 - C. Start drinking younger age
- Start drinking < 16 than 4 – 6 x more at risk for serious drinking problems later in life !

* Susan Tapert Alcohol Research & Health 2005









MRI Fractional anisotropy

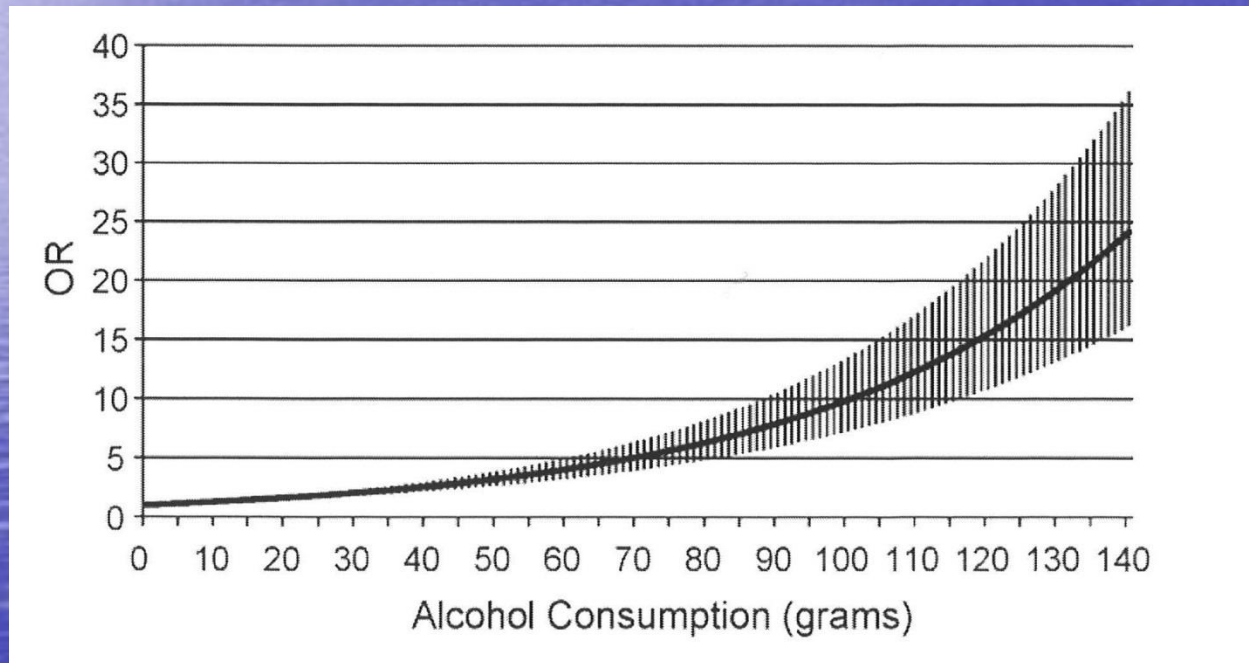
ALCOHOL AND INJURY in Emergency Departments

Summary of the Report from the WHO
Collaborative Study on Alcohol and Injuries



World Health Organization

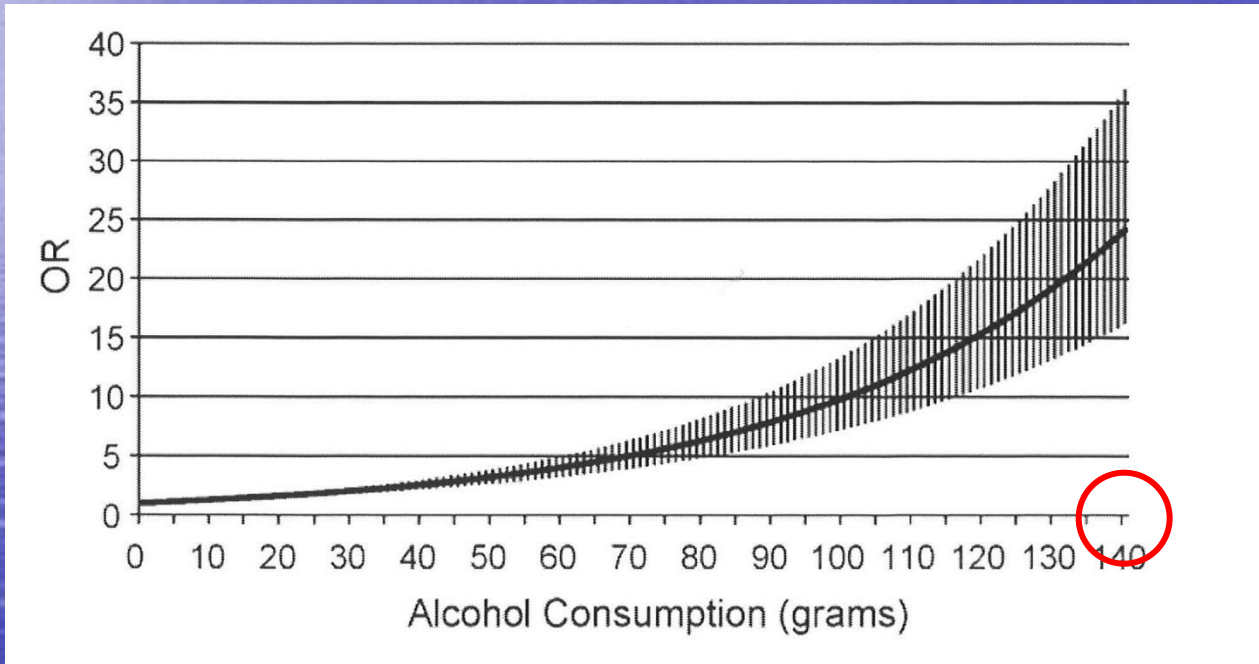
Dose Respons Curve The more you drink, the harder you fall: A systematic review and meta-analysis of how acute alcohol consumption and injury or collision risk increase together.



Taylor B. Drug and alcohol dependence Volume 110, Issue 1, Pages 108-116.

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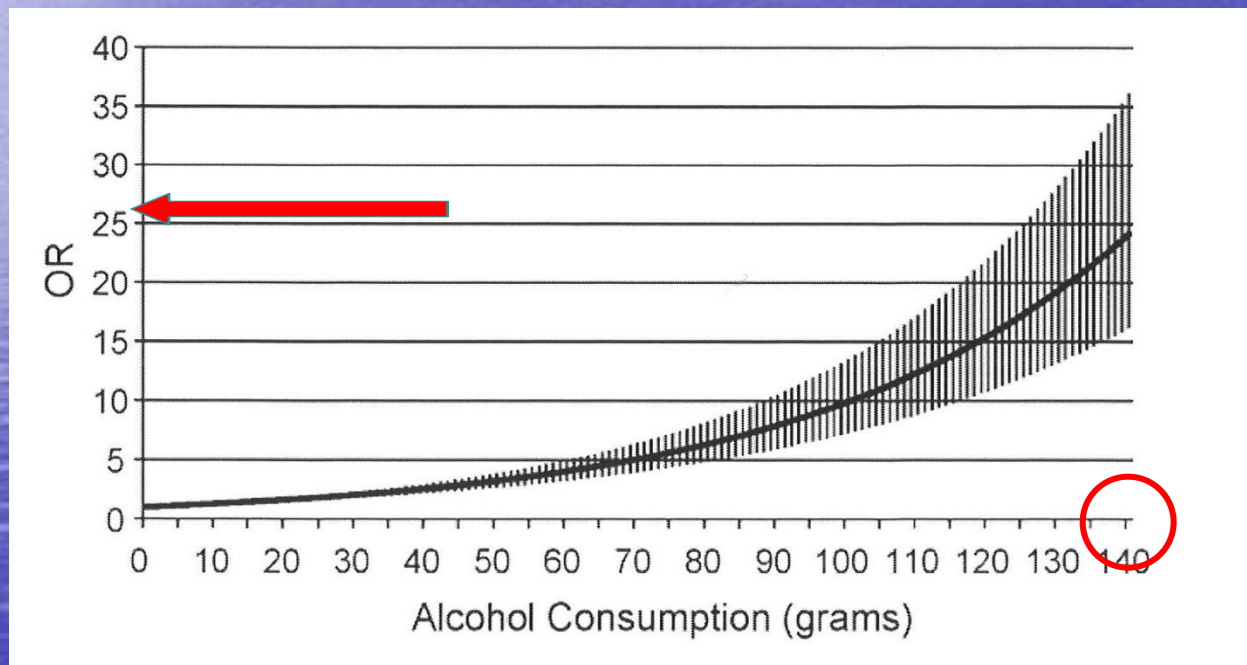
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