

Alcohol in the young: a medical emergency

LEPH / ENALE, Amsterdam
October 4th, 2016

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máxima
medisch centrum



Today's message

- Alcohol in the young
 - Intoxication = life threatening
 - Long term consequence = brain damage
- Motivation to maintain or improve your anti-alcohol policies

Intoxication

- Children more vulnerable than adults
 - Different body composition
 - Immature brain
- Growth of body and brain not synchronized
 - Brain maturation not before the age of 25
- Frontal lobe = weak spot
 - Norms / values / inhibition / decision making
 - “Natural” inability to reject temptation

Acute risks

Loss of control

- Remember the frontal lobe!
 - No inhibition, loss of moral values
- Aggression
- Physical accidents
- Unsafe sex

Acute risks of intoxication

- Alcohol causes brain deregulation
 - Hypothermia
 - Slow heart rate
 - Low blood pressure
 - Slow / insufficient breathing
 - Too little oxygen to the brain

- Vicious circle: loss of consciousness

Accidents & Emergency (A&E)

- Indications referral emergency room:
 - Loss of consciousness
 - Alcohol $>0.15\%$
 - Alcohol related trauma
 - On indication of police / ambulance

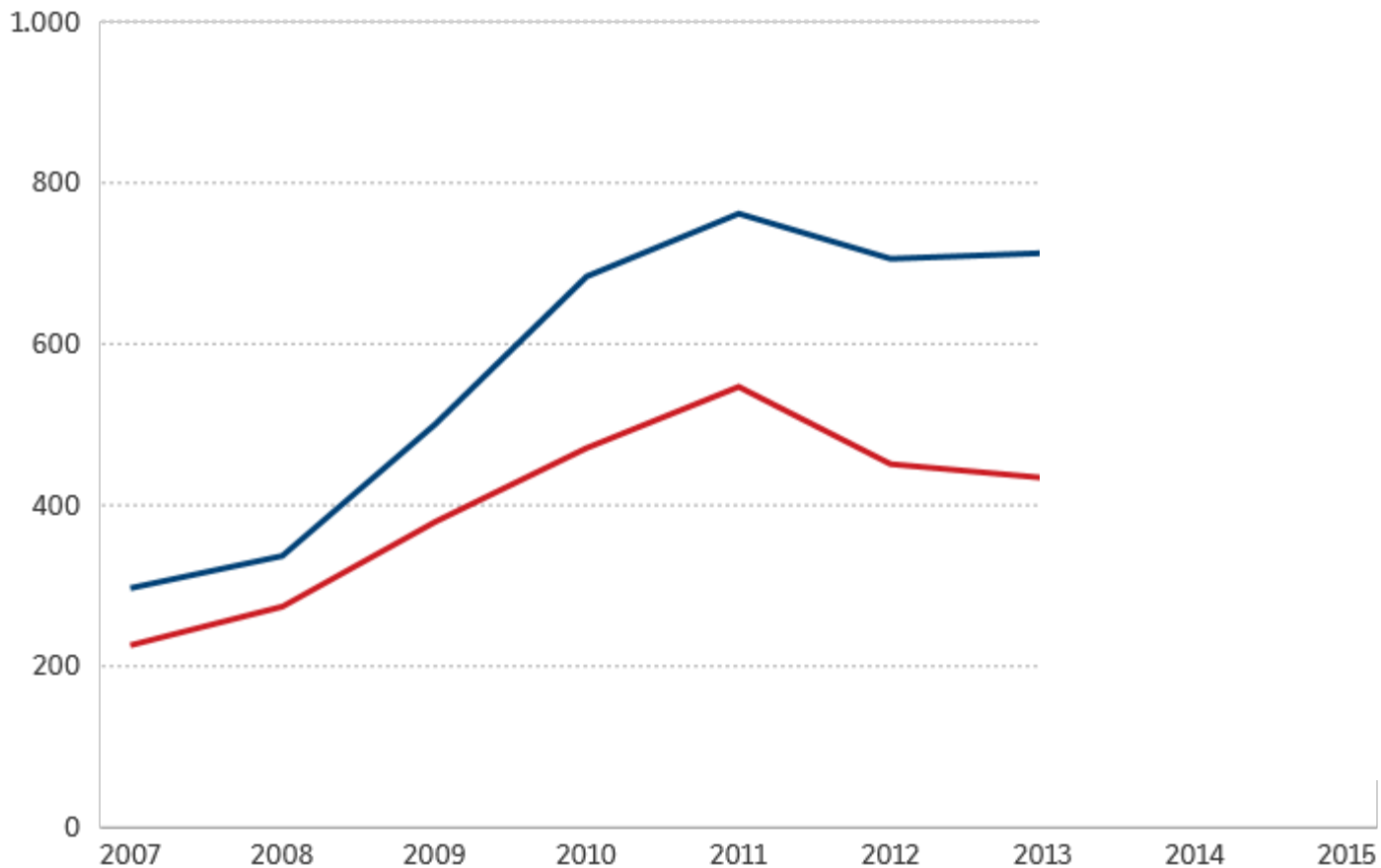
- Around 1% of drinking adolescents: A&E



Hospital admissions until 2014

Aantal meldingen van alcoholgerelateerde ziekenhuisopnames

■ Aantal ziekenhuisopnames ■ Alcoholvergiftiging



A&E

□ Admission

- Monitor heart rate, breathing, blood pressure
- Intravenous rehydration
- If indicated
 - Assisted ventilation
 - Medication to improve blood pressure

□ Next day

- No recollection / “black out”
- Pictures and video of behavior at A&E

□ Discharge with follow-up

Long term risks

Brain

- ↓ Concentration / sleep
- ↓ Mental development
 - ↓ Thinking / reasoning
 - ↓ IQ
- ↓ Emotional development
 - ↑ Addiction, aggression, contacts with justice

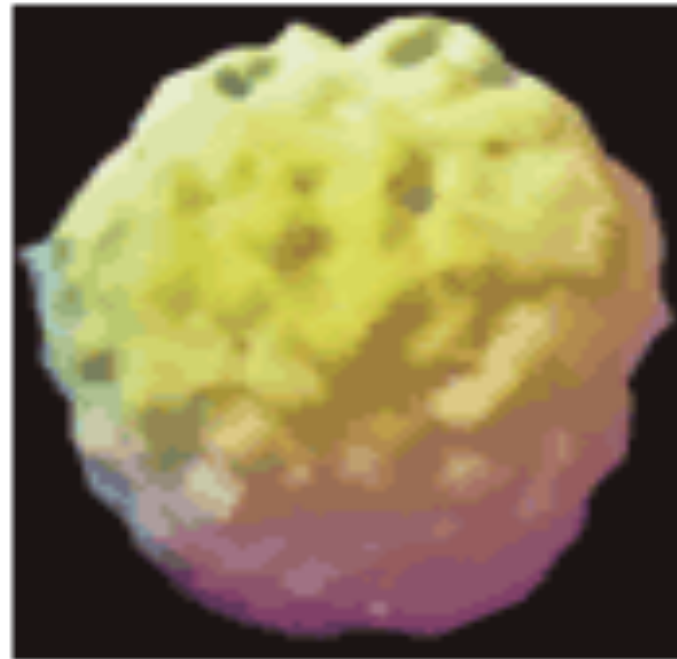
- Ergo: ↓ status / career

Chronic brain damage

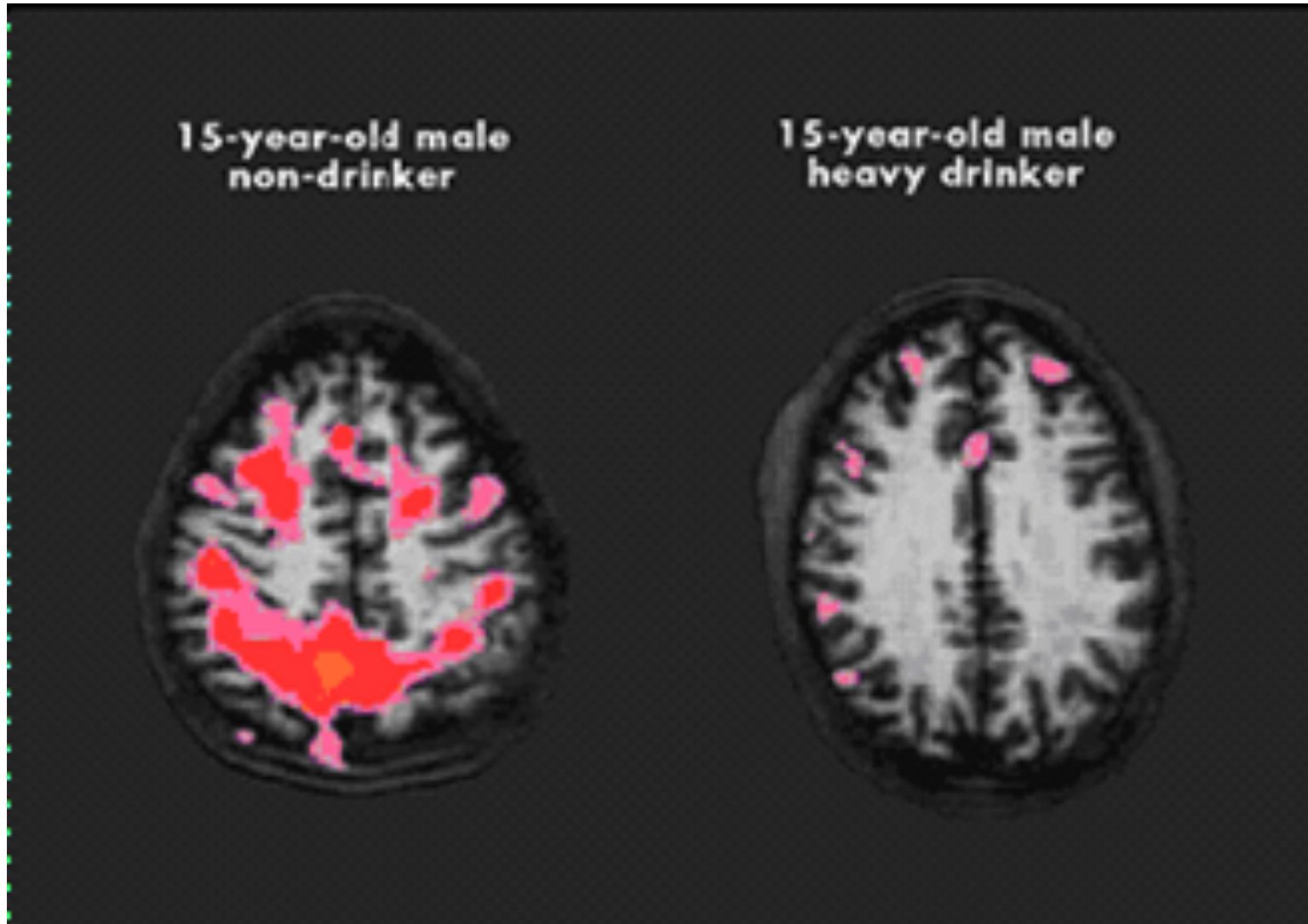
21 year old non-drinker



21 year old binge-drinker



Chronic brain damage



Follow-up

- “Alcohol-poli”: outpatient clinics
- Medical screening
 - Physical consequences
 - Memory / brain function, pictures A&E
- Education
 - Short term and long term consequences
- Psychological screening
 - Environmental risk factors (family, school)
 - Influence of peer pressure
 - Social consequences of intoxication

2014: new Dutch law

NIX < 18

- Raising age for drinking and smoking from 16 to 18 years

Trimbos questionnaire 2015

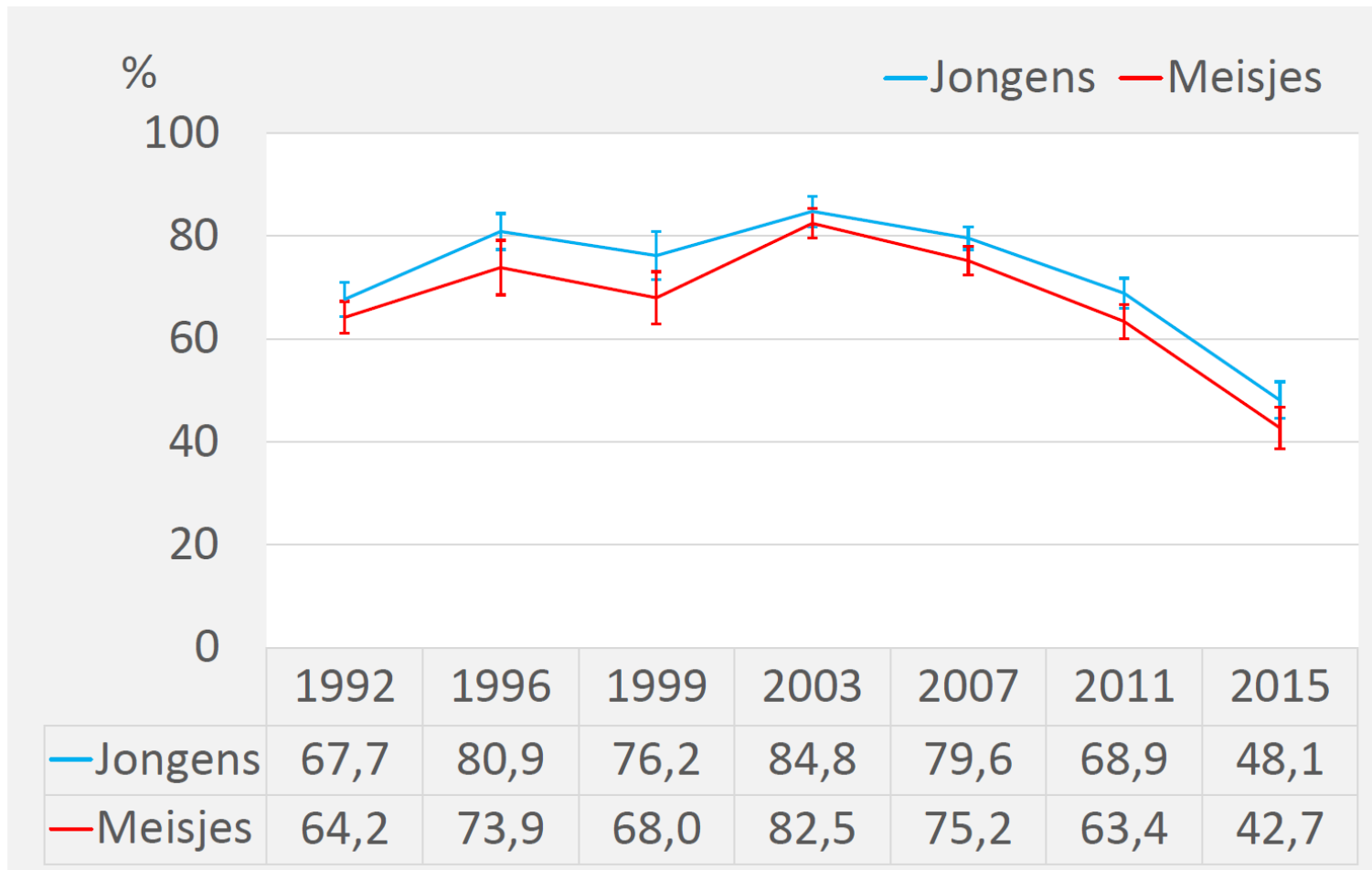
Do you ever get drunk?

Yes

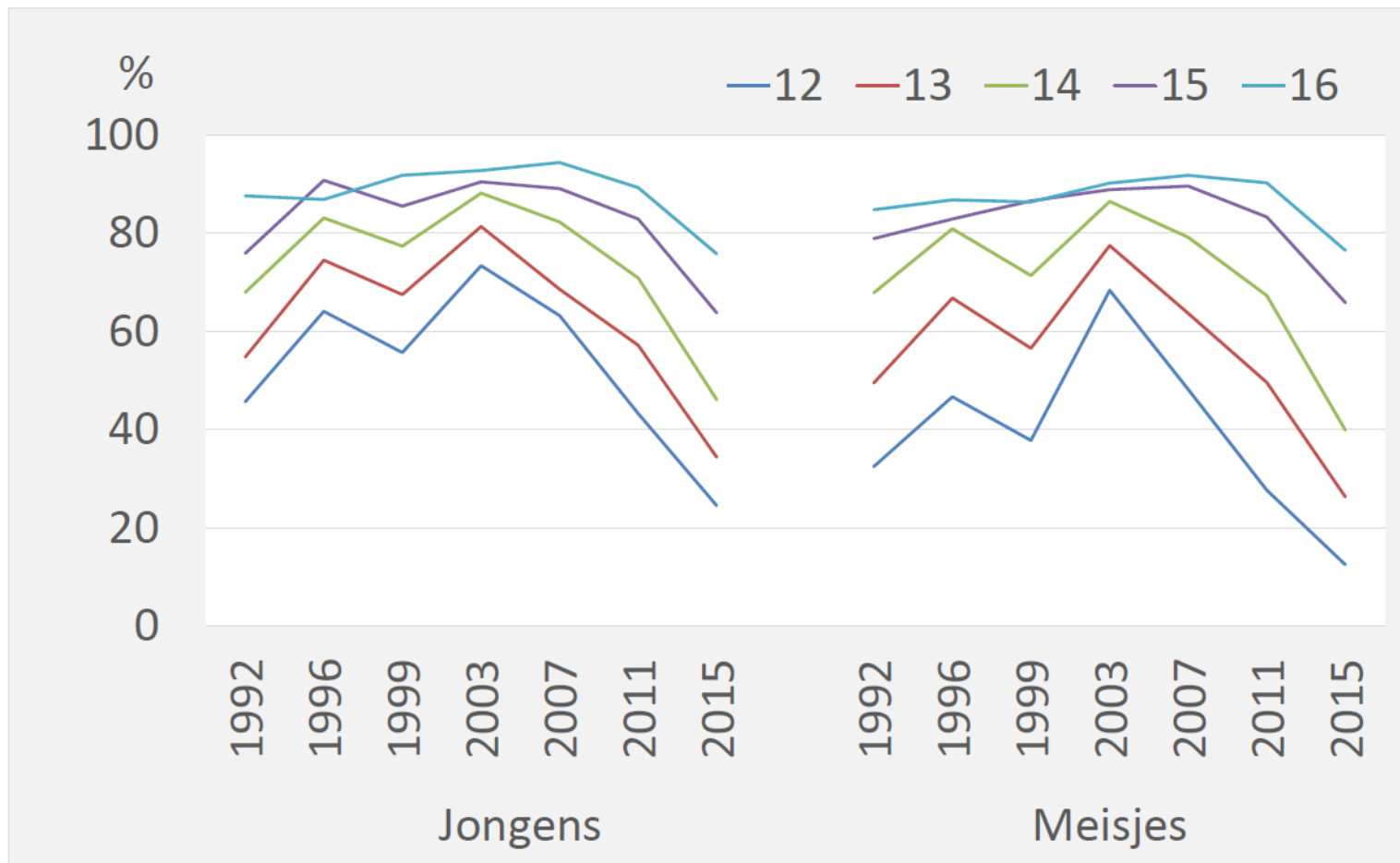
No



Experience with alcohol



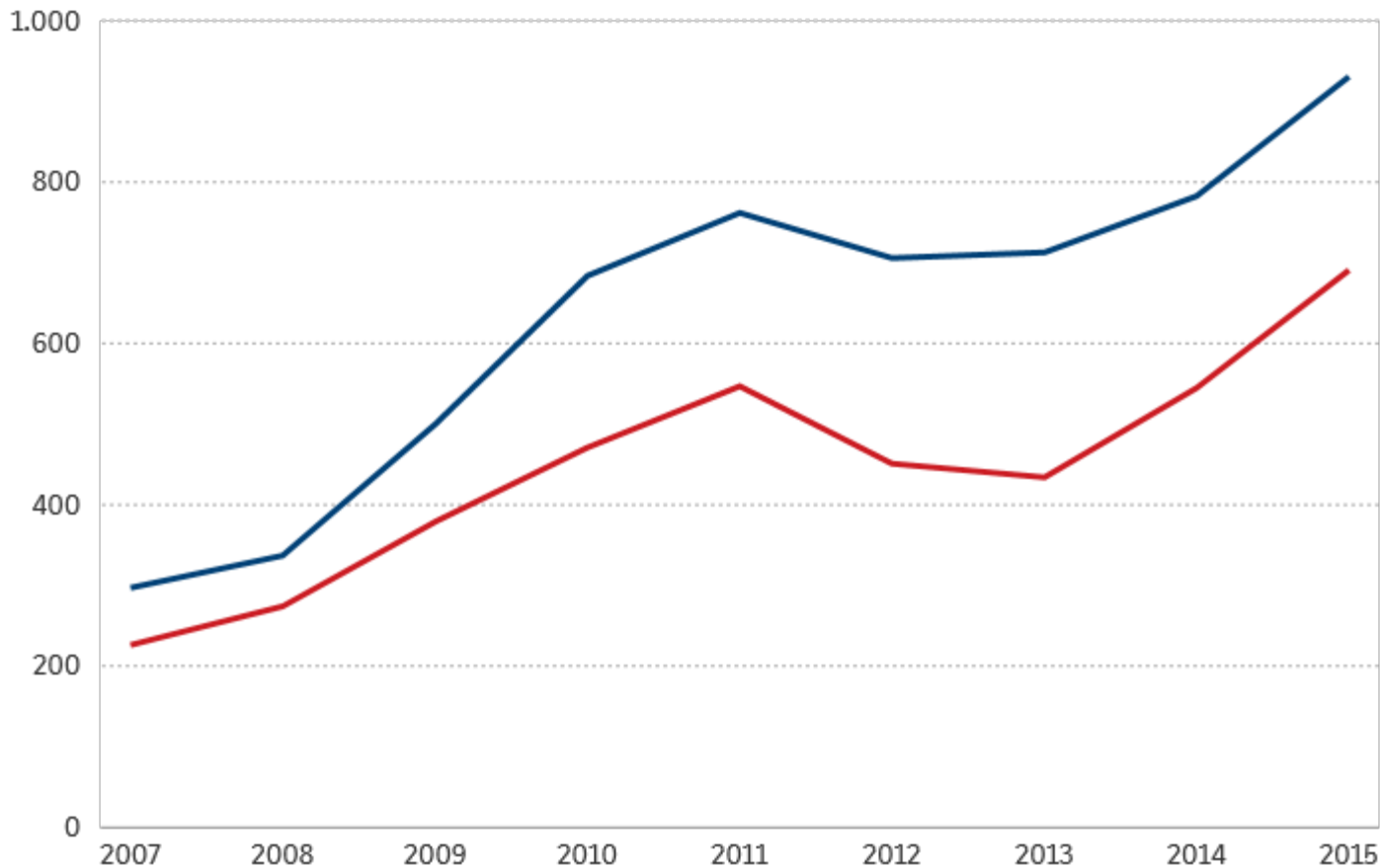
Decline in 15-16 year olds



But: hospital admissions still increasing

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The role of law enforcement

- Stay in touch with local preventive initiatives
 - Be available for schools, parents and sports clubs
 - Collaborate with addiction institutions/youth care
- Strict abidance of alcohol regulation
 - Pursue public knowledge of alcohol agreements
 - Be openly present in nightlife
 - Consistent high fines for lawbreaking bars / clubs
- Ban alcohol commercials / reduce availability

Conclusion

Adolescents have immature brains

- ❑ Detrimental effect of alcohol
 - Acute high risk physical deregulation
 - Dangerous and life threatening
 - Long term brain damage

Prevention is a responsibility

- ❑ For the adolescent, the family
- ❑ But also for retail, bars, law enforcement

