

# Facts and figures on drink driving in Norway

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# Alcohol testing in Norway

- 1922: Erik Widmark (Sweden) – determination of blood alcohol concentration (BAC)
- 1919-1938: Klaus Hansen (Norway) documented the effects of different BAC
- 1936: Norway implement legal BAC limit: 0.5 g/L
- 1981: Random breath testing implemented
- 2001: BAC limit reduced to 0.2 g/L
- 2012: Legal limits for 20 drugs, 8 additional drugs in 2016

# Alcohol testing of drivers

- Evidential breath tests: about 2 000 per year (2015)
- Analysis of alcohol in blood: about 8 000 per year



# Drink driving in random road traffic

Year	Region	Time	No.	Prevalence
1970-1	Oslo	22-02	1 927	2.0% over 0.5 g/L
1977	South-eastern Norway	22-02	1 152	1.0% over 0.5 g/L
1981-2	All parts of Norway	24/7	71 999	0.3% over 0.5 g/L
2003-4	Oslo & Bergen	24/7	410	0.0% over 0.5 g/L
2005-6	South-eastern Norway	24/7	10 793	0.3% over 0.2 g/L
2008-9	4 regions (E/W/M/N)	24/7	9 410	0.2% over 0.2 g/L
2011	Not specified (TISPOL)	June 1-6	30 441	0.16% over 0.2 g/L
2014-15	Finnmark (north)	24/7	3 027	0.2% over 0.2 g/L
2016-17	South-eastern Norway	24/7	5 000	?

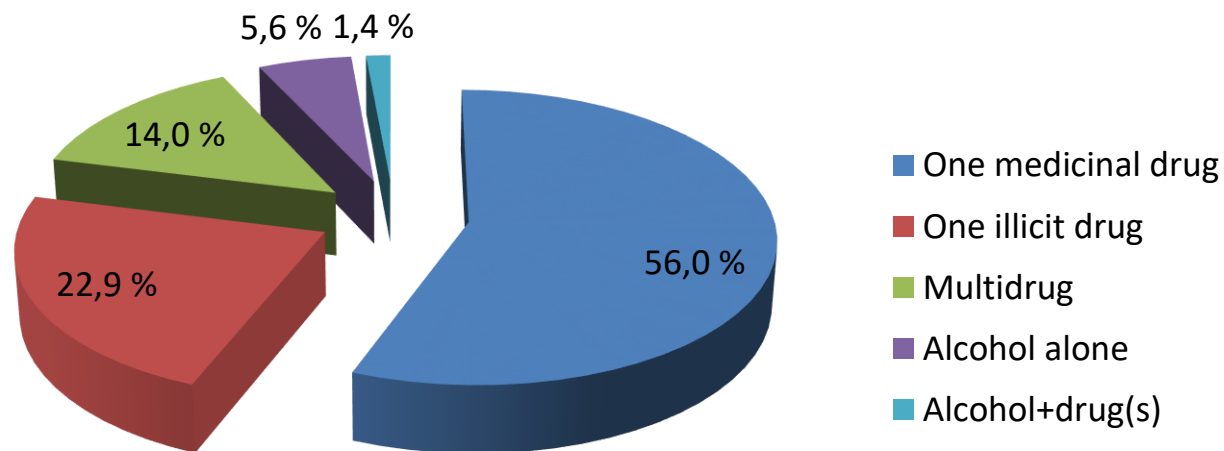
# Drink/drug driving in random traffic

	Positive in oral fluid	Above legal limits (estimate)
Alcohol	0.3%	0.2%
Medicinal drugs	3.2%	1.3%
Illicit drugs	1.5%	0.6%

Roadside survey 2008-9.  
Traffic Injury Prevention 2013; 14: 443-452.

# Drink/drug driving in random traffic

**Distribution of psychoactive substances among substance-positive drivers in random traffic**



# Drink driving in random traffic

Norway has had 80 years with:

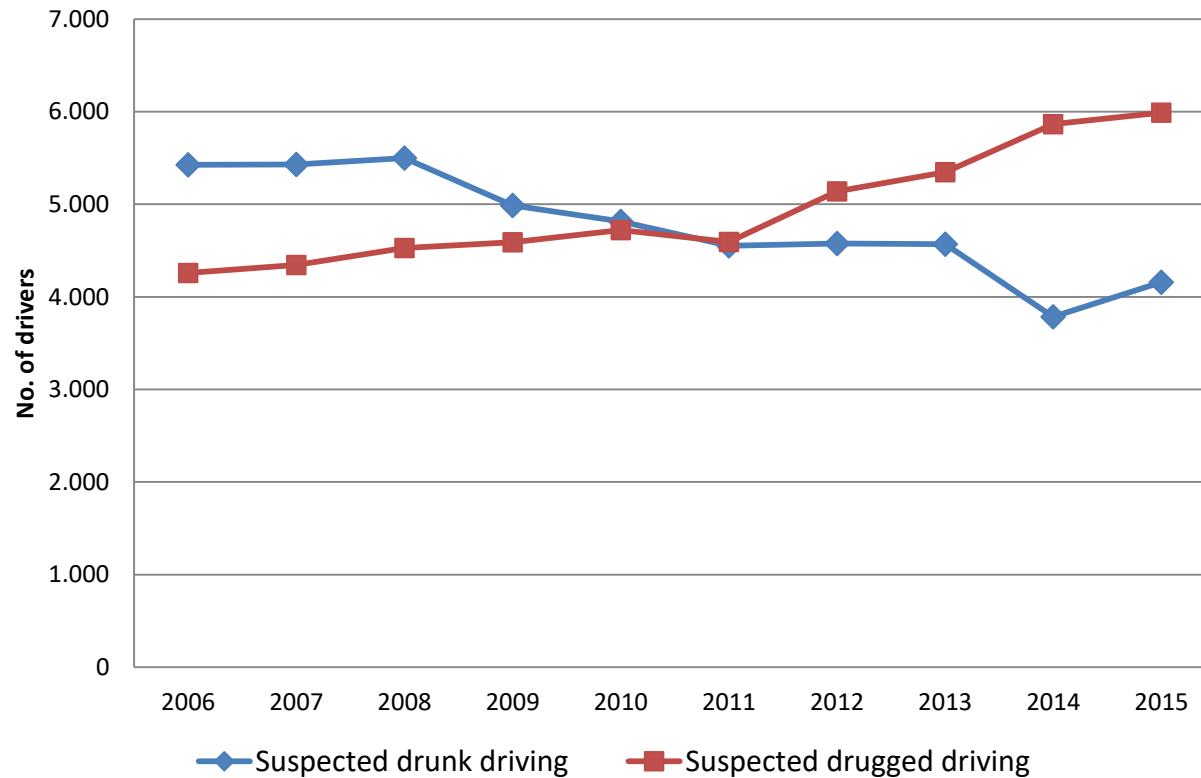
- Strict drink driving law
- Strict penalties (imprisonment / withdrawal of driving licence / high fines)
- Strong enforcement
- Random breath testing for 35 years
- Many information campaigns



**Now:** It is socially not accepted to drive after drinking

The vast majority do not drink-and-drive

# Suspected DUI offenders





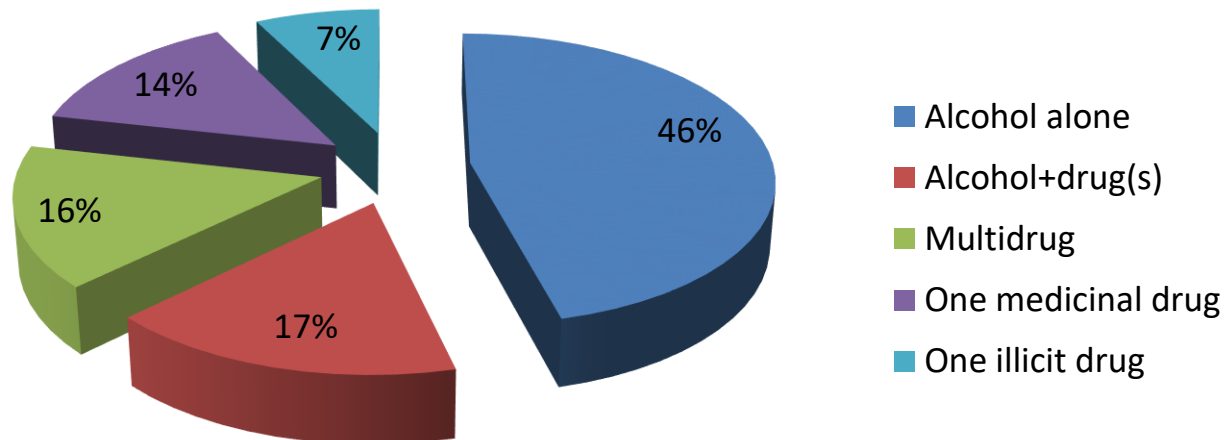
# Drink/drug driving among killed drivers

	Above legal limits
Alcohol	25.3%
Medicinal drugs	14.4%
Illicit drugs	14.1%

Drivers killed in road traffic crashes 2001-10.  
Traffic Injury Prevention 2014; 15: 525-531.

# Drink/drug driving among killed drivers

**Distribution of psychoactive substances among killed DUI offenders**



# Risk for crash involvement

Blood alcohol concentration	Average risk (Odds ratio)	Region
0.1 – 0.5 g/L	2	Central + Southern Europe
	6	Northern Europe
0.5 – 0.8 g/L	7	Central + Southern Europe
	29	Northern Europe
0.8 – 1.2 g/L	13	Central + Southern Europe
	103	Northern Europe
>1.2 g/L	78	Central + Southern Europe
	230	Northern Europe

Average odds ratios for serious or fatal accident.

Northern = NO, DK, FI. Central + Southern = LT, BE, NL, PT, IT

(Data from Hels et al. DRUID risk report, Deliverable D2.3.5, [www.druid-project.eu](http://www.druid-project.eu))

# DUI offenders in Norway

- About 30% of convicted drunk drivers are heavy drinkers / alcoholics
- About 40% of convicted drunk drivers are rearrested for DUI within 9 years
- The mortality rate is high among DUI offenders
- About 80% of convicted DUI offenders have criminal records
  - 54% for violations of the road traffic act
  - 57% for other criminal offences (illicit drugs, crime for profit, violence, etc.)

**A large proportion of the convicted DUI offenders have serious problems related to alcohol and drug abuse and crime**

**We believe this is partly related to high prevalence of risk-taking personality**

# Driver errors associated with alcohol

## RESEARCH PROJECT:

- Which driver errors are associated with drunk driving in fatal crashes?
- Coupling of data from two databases:
  - Data on alcohol and drug findings from the Toxicology Database at NIPH
  - Data on driver errors and unsafe driver actions from the In-Depth Crash Analysis Database

# Recorded unsafe driver actions/errors

## Unsafe driver actions & errors

Speeding

Non-use of seatbelt

Partying in the car

Sickness/lack of sleep/fatigue

Incorrect decisions

Insufficient information gathering

Incorrect positioning on road

Lack of technical knowledge

Lack of experience/driving skills

Use of mobile phone

Lack of driving license



# Results

- 840 drivers of cars and vans were killed in RTCs during 2005-13
- Data for 515 drivers (61%) were coupled

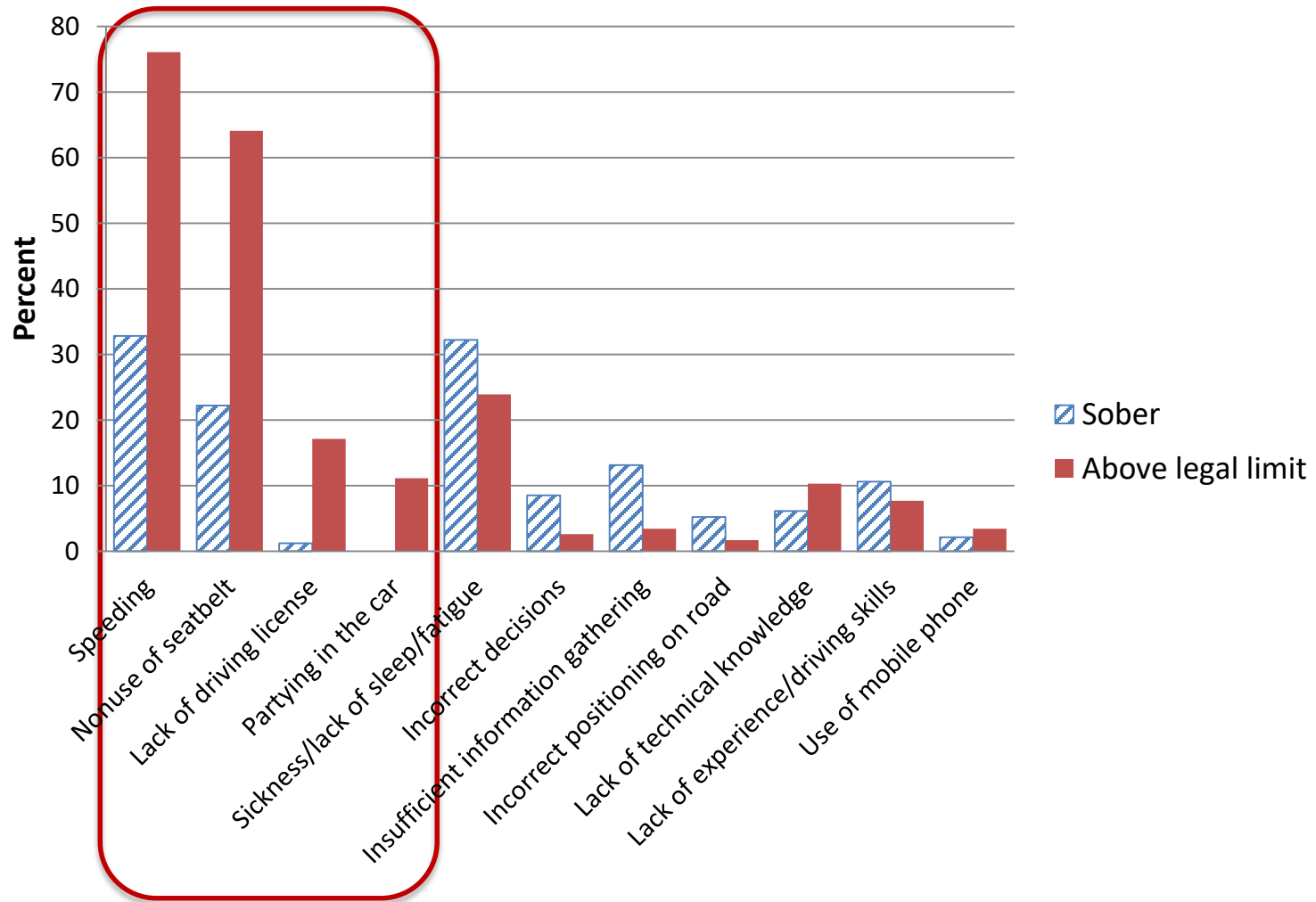
## Toxicology

- 23% (n=117) had BAC>0.2 g/L
- 14% (n=70) had medicinal drugs above the legal limits
- 11% (n=58) had illicit drugs above the legal limits

## Common driver errors

- 44% (n=226) speeding
- 35% (n=180) no seatbelt
- 30% (n=157) sickness/lack of sleep/fatigue
- 11% (n=57) insufficient information gathering
- 6% (n=33) no driver license

# Errors associations with drink driving





# Conclusions

- Drink driving is rare in Norway compared to most other European countries
  - The vast majority do not drive after drinking – drink driving is not socially accepted
- The proportion of drink drivers in fatal crashes is still high. Why?
  - The risk for crash is high when driving while drunk
  - Drunk drivers have often drinking problems or risk taking personality
  - Risk-taking personality increases the crash risk after drinking
- The most common driver errors among drunk drivers killed in crashes are speeding and non-use of seatbelts



# Thank you for your attention!



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