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# Various Methods for Controlling Drink Driving – Experiences from Sweden

Lars Olov Sjöström



# Drink Driving in Sweden

Most drivers are sober...

	2007	2017	National target 2020
Road traffic performance, percentage of sober drivers	99,71 %	99,74 %	99,90 %

Source: Swedish Transport Administration 2018

... but intoxicated drivers cause many accidents

- Every year, approximately 55-70 people killed in alcohol-related traffic accidents ( 53 last year)
- Every year about 1 500 people seriously injured in alcohol-related traffic accidents
- About 40 people killed in drug-related accidents (2017)



Source: Swedish Transport Administration and Transport Analysis

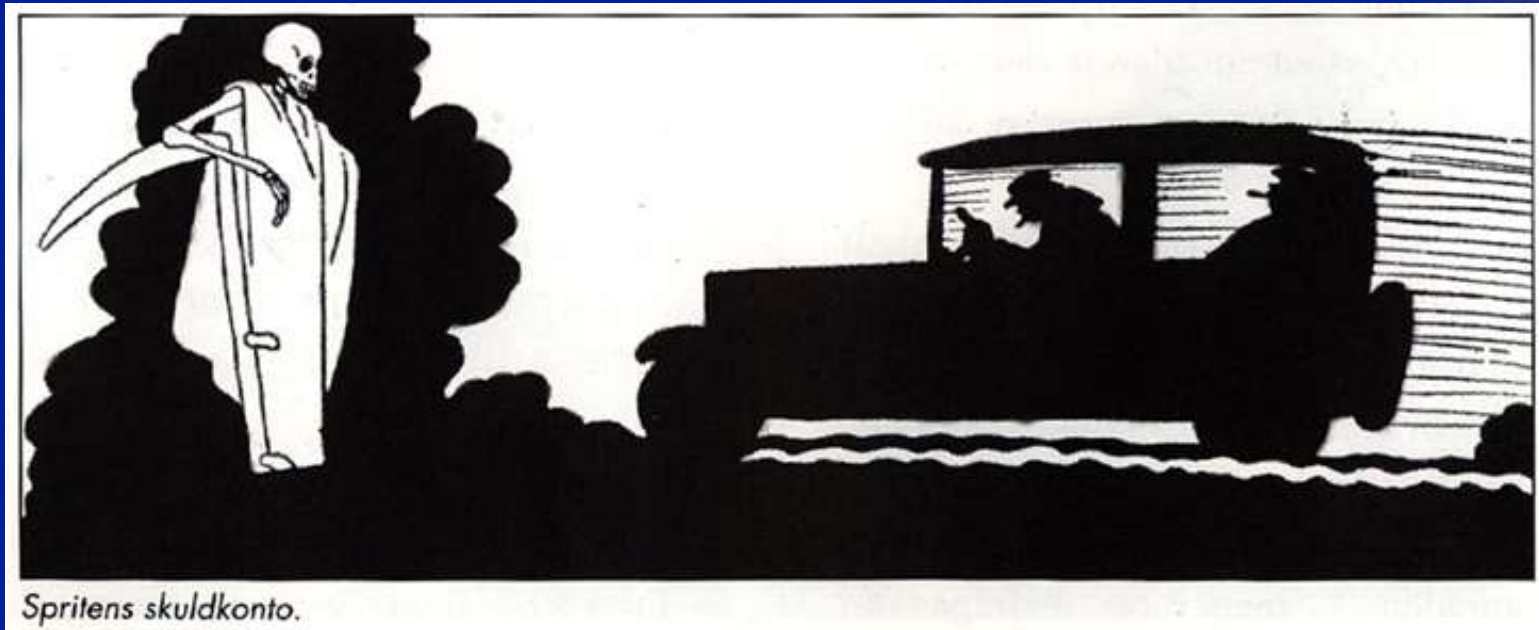
# Early research on alcohol testing – Erik M. P. Widmark



*The concentrations of acetone in blood, urine and  
alveolar air (1917)*



# Drink driving increased in 1920s – new legislation was introduced



A poster regarding the problem drink-driving (MHF 1928)



# 1937 - the "Drunkometer"



Simulating a drunk, Walter Monroe takes the "Drunkometer" test  
© Bettmann/CORBIS



# Police Breath Tests in Sweden

- Since the mid-1950s, the Swedish police uses alcohol breath testing as a tool to determine whether a blood alcohol test is required
- Prior to that, breathalyser technology had developed in the United States since the 1930s



Exempel på första generationens instrument för alkoholutandningsprov för sållningsbruk:  
Alcotestampull och ballong



# Four means of measuring the breath alcohol concentration



Chemical



Semiconductor cell



Fuel cell



Infrared (IR)



# 1999 - An important year for the use of alcohol ignition interlocks (alcolocks) in Sweden

- 1999: pilot alcolock program for drink-drivers
- 1999: The first Swedish alcolock program for commercial transports
- Alcolocks quickly considered as a natural safety equipment in vehicles - much like seat belts



# New solutions with integrated vehicle systems



Volvo



Saab



Toyota



Autoliv



Nissan



# Thank you for your attention!

Lars Olov Sjöström, MHF, Sweden

[lars.olv.sjostrom@mhf.se](mailto:lars.olv.sjostrom@mhf.se)

