



FINNISH MOTOR INSURERS' CENTRE
Investigation of Traffic Accidents / VALT

In-depth Investigation of Fatal Road Accidents: Drink driving accidents

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Operations

All fatal road traffic accidents

Not 30-days rule

Attacks of diseases included

Special projects on non-fatal accidents ~ 100 per year

VALT Method

Last revision in 2003

Standardised investigation forms

Independent

No stand on guilt or insurance compensation

Only for traffic safety purposes



Investigation teams

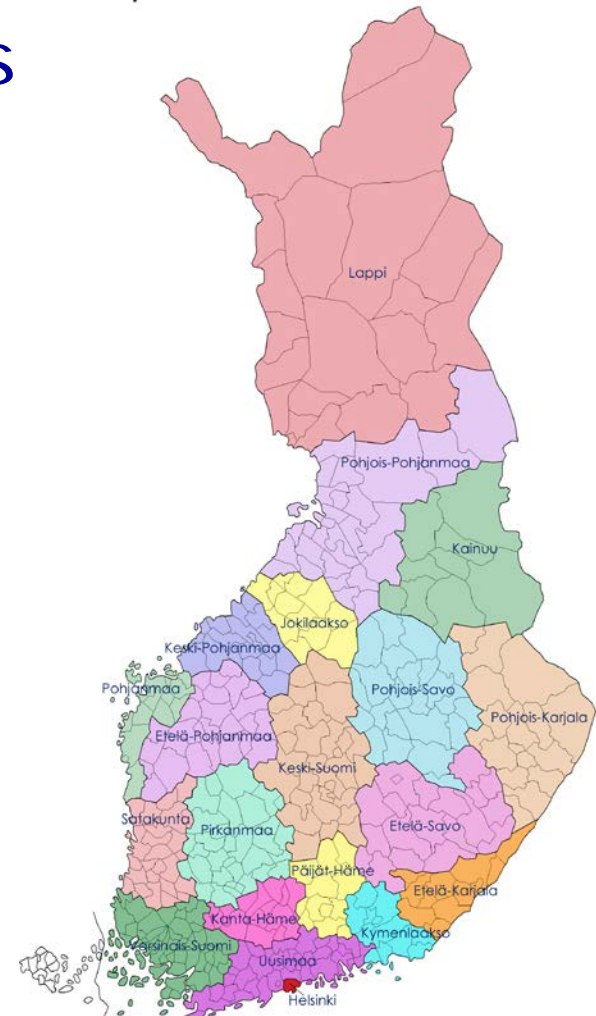
- 20 teams ~ 300 persons

- Members of one team:
 - Police officer
 - Vehicle specialist
 - Road specialist
 - Medical specialist
 - Behavioural scientist

+ additional experts

- Dangerous goods
- Railways
- Etc.

= Comprehensive analysis



Method

Analysis - What happened?

Key event

Why did it happen?

Immediate risk factors (active)

Background risk factors

Why were there serious consequences?

Injury risk factors

How could similar accidents be prevented?

Preventative possibilities

Safety recommendations



GOALS

- To Prevent accidents
- To Reduce serious consequences
- To Produce safety recommendations

Fatal Drink Driving Accidents: **Key Points**

- No significant changes in drink driving accident trends in 15 years.
- Very high blood alcohol contents together with other serious risks
- High tendency to traffic offence repetition
- Young drivers overrepresented
- Social exclusion, control of everyday routines, unemployment



Fatal Drink Driving Accidents: Recommendations

Some safety recommendations given by investigation teams:

- Alcolocks
- Traffic enforcement must be improved
- More information and education of risks related to driving condition
- Automatic seat belts
- Intelligent speed control
- Treatment of alcoholism and mental disorders



Treatment

Report:

Fatal drunken drivers' accidents during years 1999-2008.

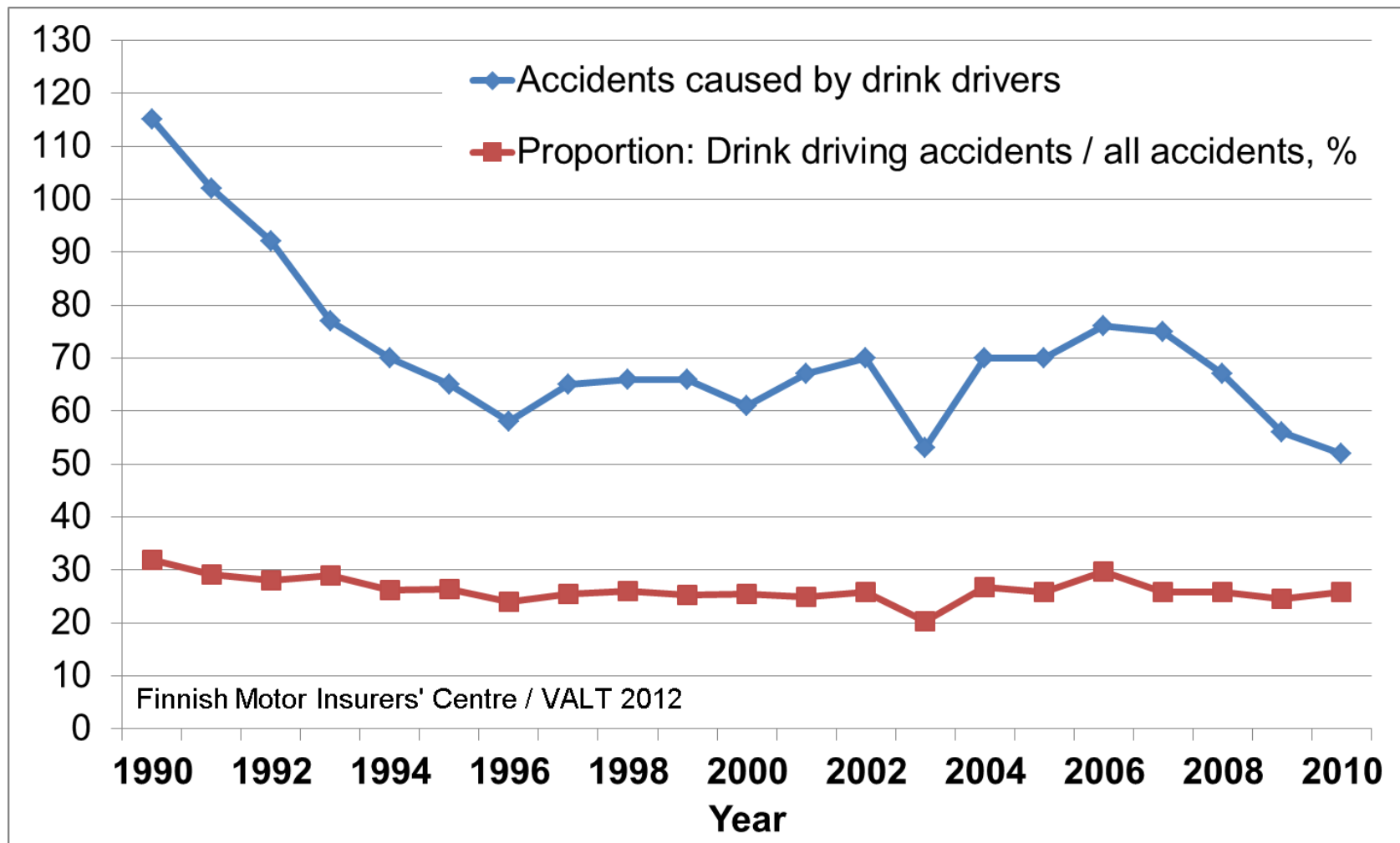
University of Turku 2011

Katila, Keskinen, Laapotti & Peräaho

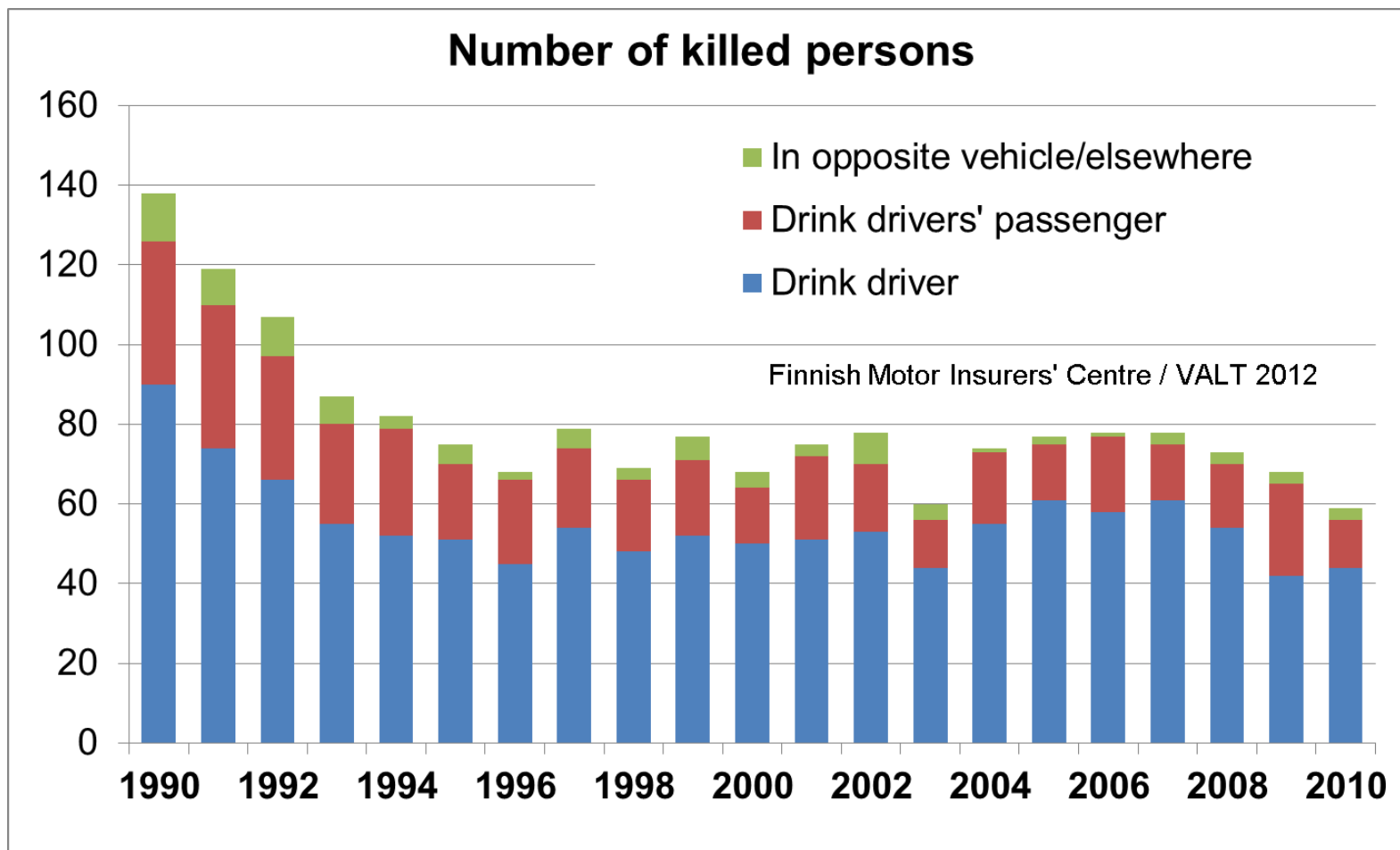
“Starting the treatment early enough for the persons with alcohol problems is utmost important but success in treatment requires also the client’s own motivation in it”



Time series; Fatal drink driving accidents



Time series; Fatalities in DD-accidents



Drink drivers are annually involved in ~2 pedestrian or cyclist deaths



Drink driver's vehicle

BAC per mille	0.5-1.19 ‰		1.2 ‰ and more		Total	
Vehicle type	N	%	N	%	N	%
Car	42	84	224	81	266	82
Van	0	0	8	3	8	2
Heavy vehicle	0	0	3	1	3	1
Motorcycle	4	8	14	5	18	6
Moped	3	6	8	3	11	3
Others	1	2	19	7	20	6
Total	50	100	276	100	326	100

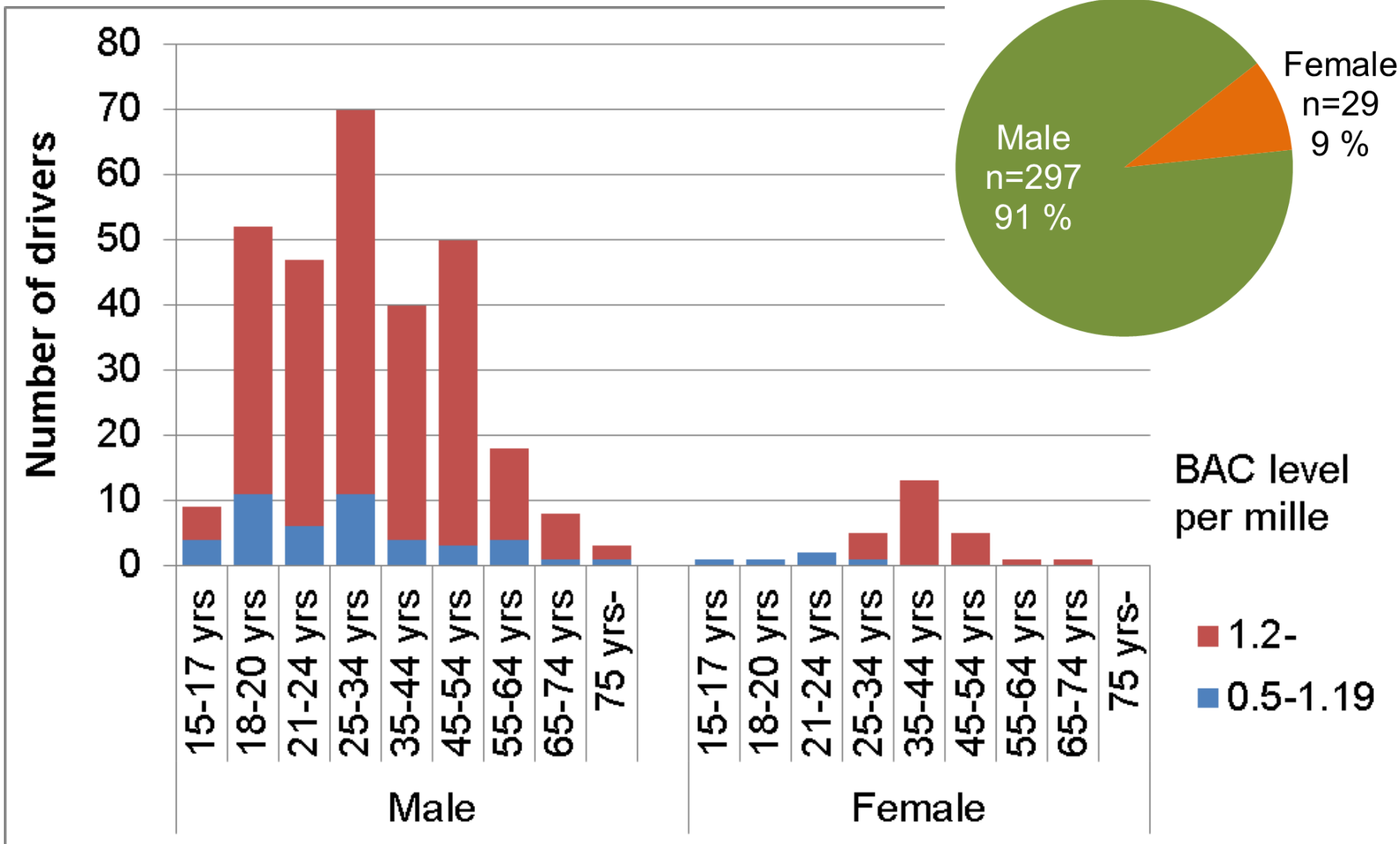
stolen vehicle 7%

borrowed vehicle 15%

OLD CARS!



Drink driver's age and gender



Previous dd-offences

BAC per mille	0.5-1.19 ‰		1.2 ‰ and over		Total	
	N	%	N	%	N	%
Previous drink driving offences (last 5 yrs)						
No offences	26	54	149	58	175	58
One	9	19	49	19	58	19
Two or more	13	27	57	22	70	23
Total	48	100	255	100	303	100
Not known	2		21		23	
Grand Total	50	100	276	100	326	100



The most common risks

- **Influence of alcohol;** hangover, cramps, uncontrolled movements
- **Speeding / too high situational speed**
- **Non-use of safety belt**
- **Other carelessness** (several previous offences)
- **State of mind** (depression, anger, excitement etc.)
- **Fatigue**
- **Influence of the use / non-use of medicines;**
medicine addictions



The most common Safety proposals

- **Safe driving condition must be ensured;** (alcolock - prevention of drinking and driving)
- **Enforcement of intoxicated drivers and driving speed must be improved**
- **Driving control systems (ESC, ISA)**
- **Information and education of risks related to driving condition;** (influence of alcohol, fatigue, excitement)
- **The use of safety belts must be ensured;** Automatic safety belts
- **Separation of opposite driving directions must be increased;** median barriers
- **More enforcement to rural roads**



Summary

- 22% of drink drivers were under the influence of other intoxicants
- 66% had at least one traffic offence (last 5 yrs)
- 42% had at least one drink driving offence (last 5 yrs)
- 75% of drink drivers did not wear safety belt or helmet
- Typically very high BAC levels
- Young males overrepresented
- Typical other risks: speeding, non-use of safety belt
- Most common safety proposals; **Alcolocks**, enforcement and driving control systems





Thank You for Your Attention!

