

MAASSTAD ZIEKENHUIS



MaasstadLab



The Dutch experience of workplace drug testing

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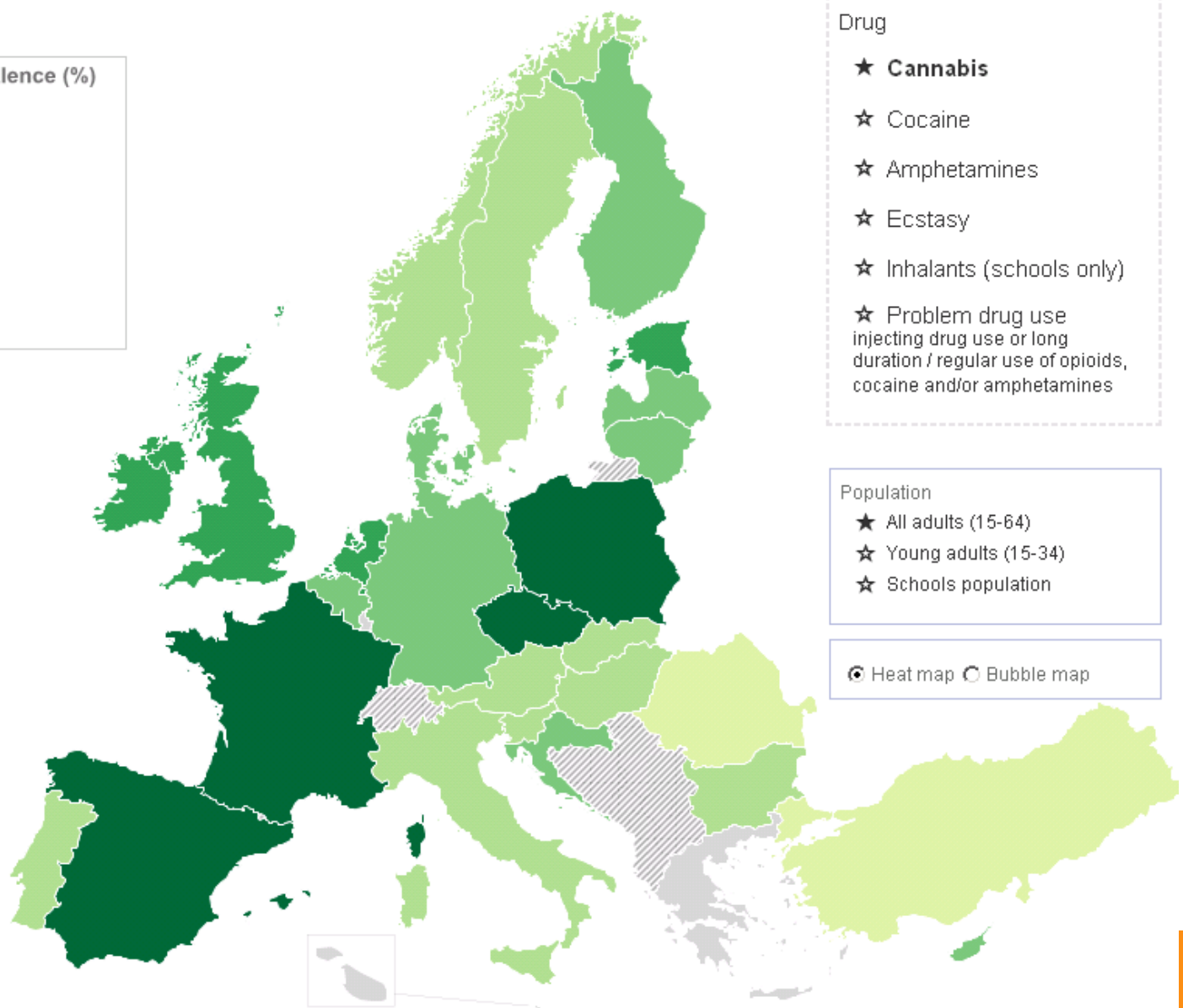
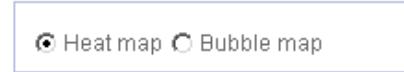
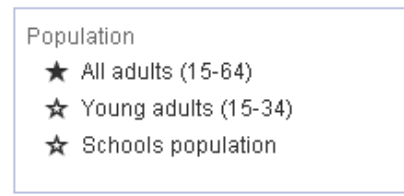
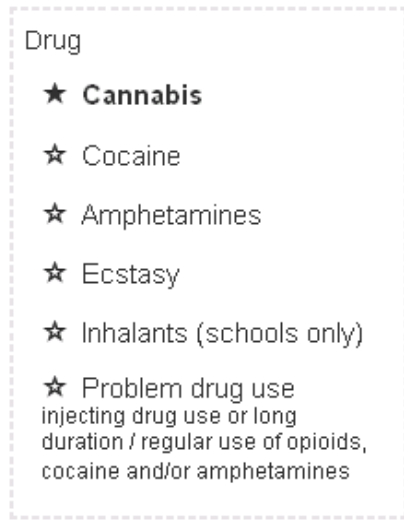
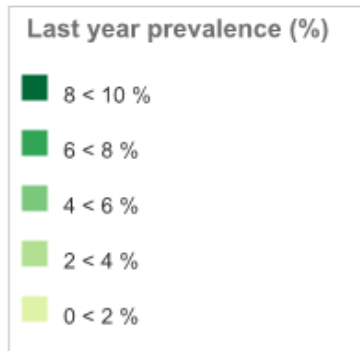
- Opium Act since 1928
- In NL difference between
 - Hard drugs: heroin, cocaine, amphetamine, LSD, XTC
 - Soft drugs: benzodiazepines, cannabis
- Possession, trade, import, export, dealing and production of drugs is a criminal act
- Drug use does not constitute a crime in legal terms

- Addicts will be treated and NOT punished in NL
Unless.....
- Serious offences are committed
- Ministry of Health vs. Ministry of Justice
- In less serious offences is the punishment: a treatment for the addiction
- Treatment: get off the drug and medical care
(if necessary methadon supply; syringe exchanges)
- Prevention of use and misuse

Prevalence of drug use in Europe



Cannabis: last year prevalence among all adults (15-64 years old)



Source:
EMCDDA

- In NL workplace drug testing is not obliged
- For specific sectors European guidelines are followed
 - EBIS: European Barge Inspection Scheme
 - Once a year → twice a year drug testing
 - Offshore
- Acceptance of drug testing by Employees Council of company

- Offshore: Dutch companies worldwide



- Barge companies

Drugsscreening MaasstadLab



Drug	Amount	Positive samples (%)
Opiates	36.080	783 (2.2%)
Amphetamines	35.930	873 (2.4%)
Cocain	34.998	1.428 (4.1%)
Benzodiazepines	29.175	3.682 (12.6%)
Barbiturates	2.817	0 (0%)
Methadon	12.998	1.880 (14.5%)
THC	46.152	9.407 (20.4%)
XTC	5.371	118 (2.2%)
Ethanol	9.995	420 (4.2%)
ETG	9.144	696 (7.6%)
Total	222.660	-

Examples from daily practice - I

- Ship with 100 employees
- DOA screening for workplace drug testing
- 20 employees positive for opiates

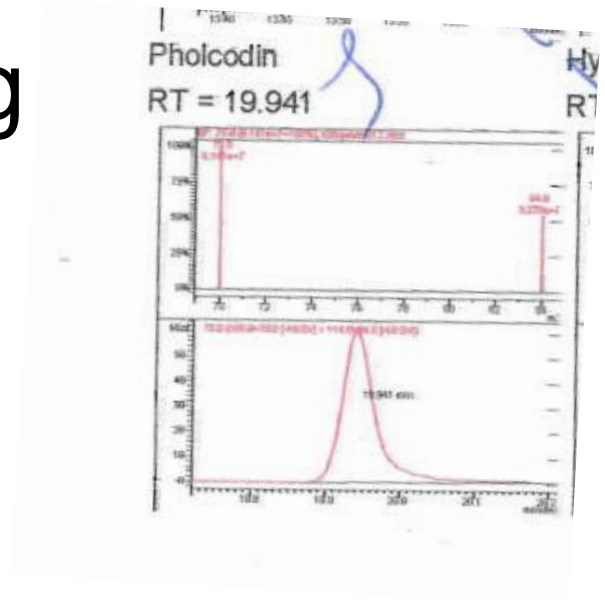
Cocaine	neg.
Amfetamine	neg.
Opiaten	>5000
PCP	neg.
THC	neg.
Kreatinine	8.05 mmol/l

Opmerking: - Kreatinine gehalte van minder dan 2.0 mmol/l duidt op een verdunde urine.
Een negatieve uitslag is hierdoor minder informatief.

- Confirmation analysis

Examples from daily practice - I

- All 20 employees positive for Pholcodin (which was stated on informed consent)
- Explanation from shipping company.....



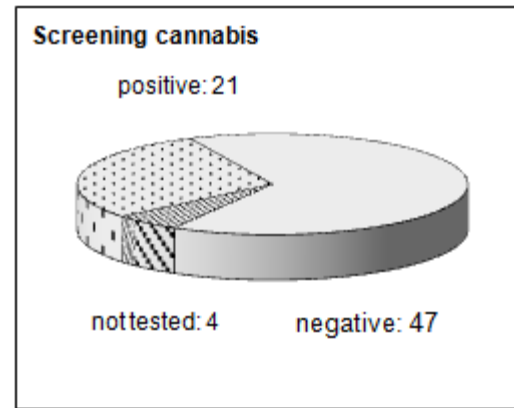
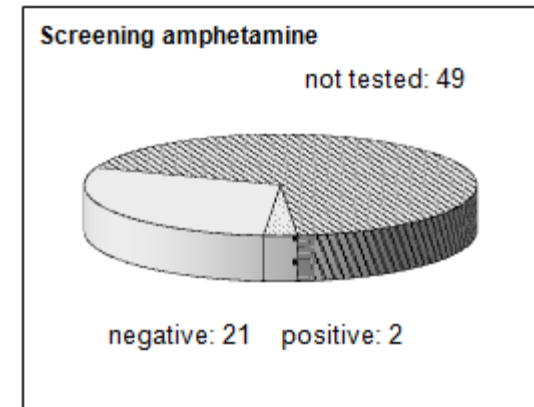
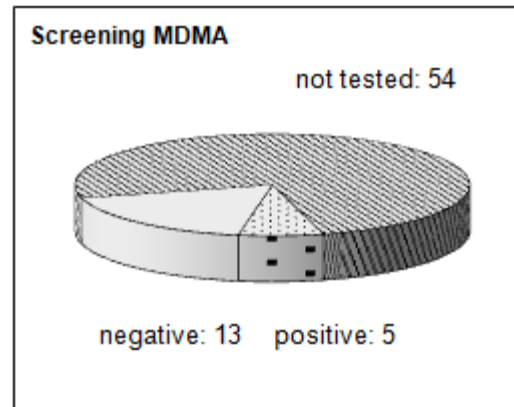
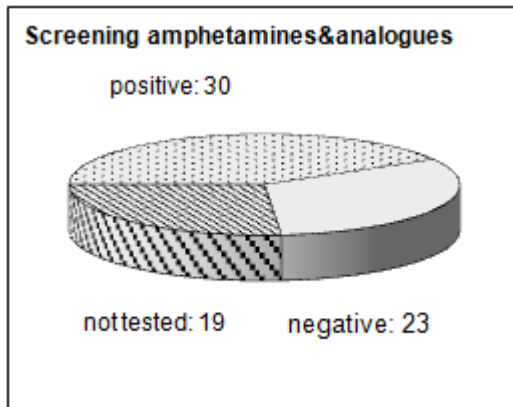
- Ethanol screening in urine
- In 1 run a lot of positive samples
- Rather unusual

- What next?

- Ethylglucuronide (ETG) screening
- ETG is not formed in vitro (by fermentation)
- ETG is longer detectable in urine than ethanol
- Samples are negative for ETG
- Conclusion?

- External Quality Control
- KKGTT (association for quality assessment in Therapeutic Drug Monitoring and Clinical Toxicology)
- Drugs of Abuse: since 1994 4x/year 2 urine samples

- Results round 2012.1A



- Blanc urine spiked with bleach (8%)
- Abnormal foaming and smell
- Report 70 labs:
 - 44 no special details
 - 16 something unusual
 - 10 real irregularity

Conclusions

- In NL workplace drug testing is not generally accepted
- Sample acquiring, sample preparation, analysis in laboratory and interpretation requires specific knowledge
- Analysis of drugs of abuse in laboratory is only a part of the drugs- and alcoholpolicy within a business