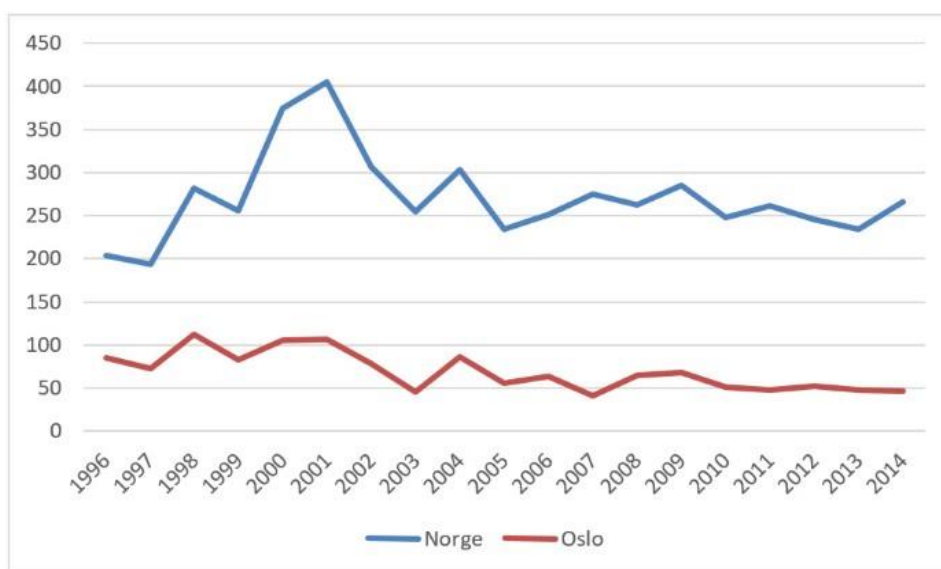


TYOLOGY OF SUBSTANCE USE AMONG A COHORT OF STREET-RECRUITED ILLEGAL POLYSUBSTANCE USERS AND IT'S ASSOCIATION WITH MORTALITY

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Background



Study aims

- Classify typologies of substance use among a cohort of polysubstance users
- Examine the association between latent classes, potential risk factors for mortality and mortality



Methods

- A 30-year prospective registry study
 - Inclusion Sept-Nov 2013
- Interview data merged with data from the National population registry
 - Date of death
 - Inclusion-30. October 2015



Inclusion

- To have used illegal opioids and/or central stimulants in the four weeks prior to the interview
- Not in OST
- Recruited from
 - Low threshold services, housing facilities, street magazines, street



Questionnaire

- Interviewer-administrated
- Items
 - Substance use
 - Income and income sources
 - Level of education
 - Living situation
 - Overdose experience
- Approx 15 min
- 200 NKR (32 AUD) for participation



Statistical analysis

- Latent class analysis
 - Substances used previous 4 weeks
 - No use
 - ≤ 3 times a week
 - Daily or almost daily
 - 20% prevalence
- Cox survival analysis



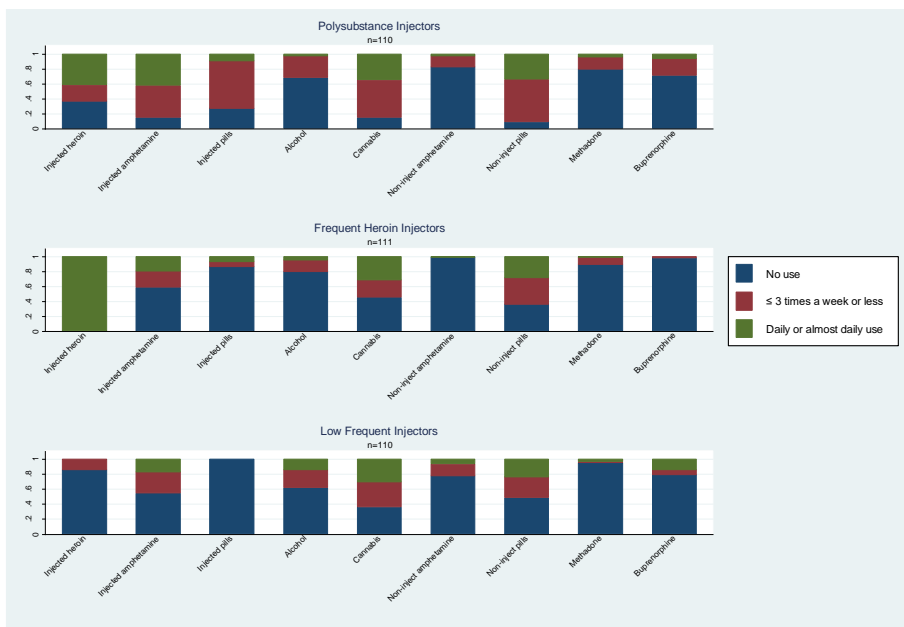
Baseline characteristics

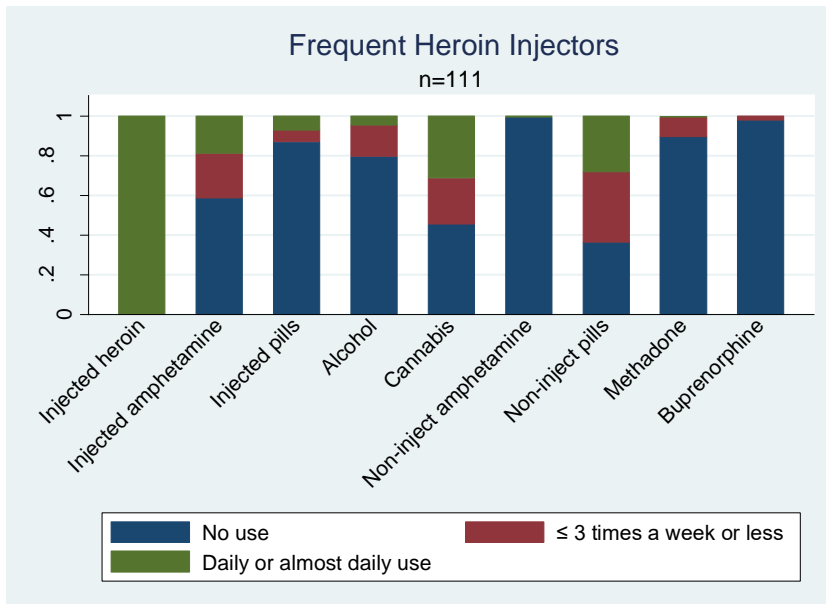
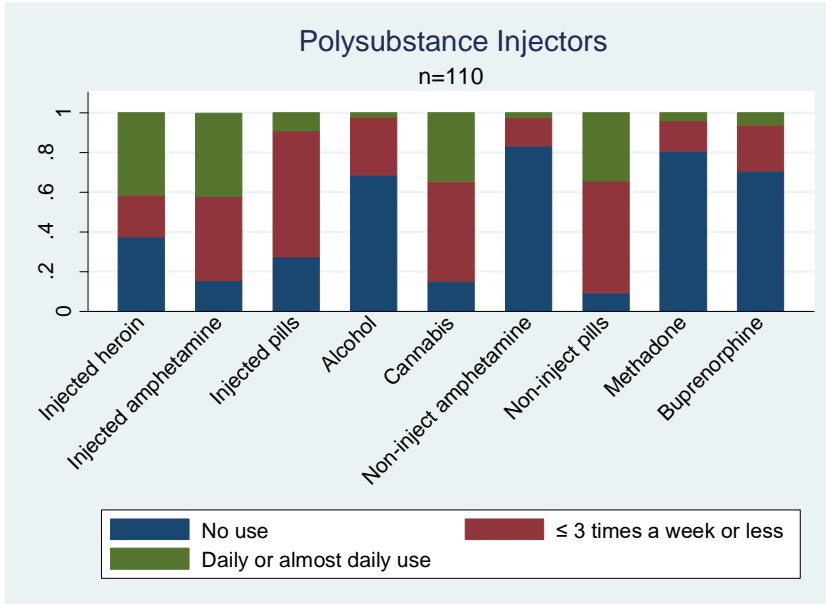
	n=527
Mean age (sd)	40.3 (11.0)
Male	390 (74%)
Homeless or shelter user	190 (36%)
Theft	67 (13%)
Dealing	150 (28%)
Overdose in the previous 4 weeks	40 (8%)

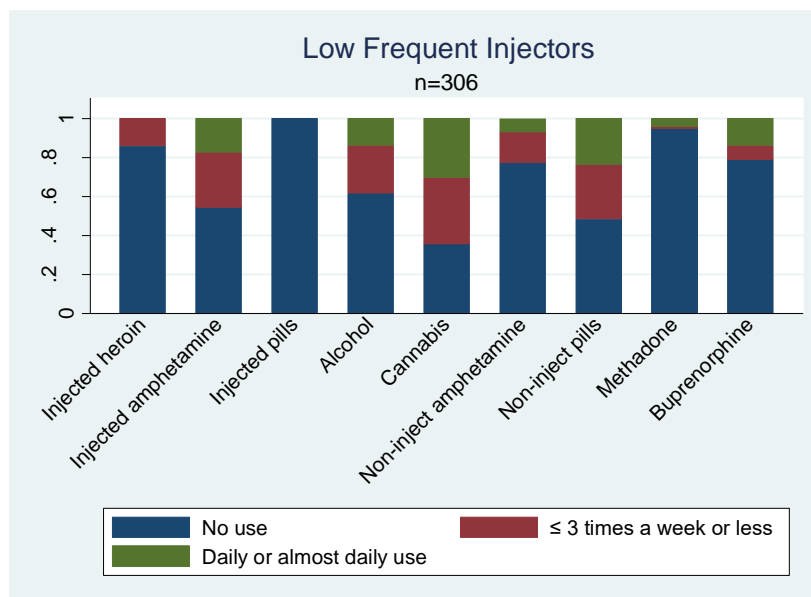


Selection of latent classes

No of classes	Log likelihood	BIC	A-BIC	A-LMRT	BLRT	Entropy
1 class	-3778.2	7669.3	7612.2	N/A	N/A	N/A
2 class	-3685.7	7603.2	7485.8	0.000	<0.001	0.69
3 class	-3637.5	7626.0	7448.2	0.001	<0.001	0.84
4 class	-3602.2	7674.4	7436.3	0.493	<0.001	0.85
5 class	-3575.6	7740.4	7442.0	0.798	<0.001	0.75







Probabilities of Baseline Characteristics

	Polysubstance injectors	Frequent heroin injectors	Low frequent injectors	χ^2	p-value
Mean age (SE)	35.50 (0.89)	39.34 (1.03)	42.70 (0.63)	44.25	<0.001
Male	0.68	0.77	0.76	1.51	0.471
Homeless or shelter user	0.48	0.46	0.28	17.76	<0.001
OD in the previous 4 weeks	0.15	0.09	0.04	7.25	0.027
Theft	0.26	0.07	0.09	11.36	0.003
Dealing	0.51	0.31	0.17	33.82	<0.001



Mortality risk

- 33 deaths
- Time at risk 1025.3 person-years
- IR 3.21 (95% CI 2.29; 4.53) per 100 PY
- Polysubstance injectors had a significantly higher probability of overdose in the past four weeks, do they have a higher risk of death?



Adjusted cox survival analysis

	Haz. Ratio	[95% CI]	P>z
Male	1.02	0.47; 2.26	0.949
age	1.04	1.01; 1.08	0.016
Homeless or shelter user	0.59	0.27; 1.31	0.196
Overdose past month	6.47	2.86; 14.65	<0.001
Class 1: Polysubstance injectors	1.37	0.60; 3.15	0.453



Adjusted cox survival analysis II

	Haz. Ratio	[95% CI]	P>z
Male	1.02	0.46; 2.24	0.964
Age	1.04	1.01; 1.08	0.017
Homeless or shelter user	0.61	0.27; 1.37	0.229
Overdose past month	6.71	2.93; 15.35	<0.001
Class 1: Polysubstance injectors	1.25	0.52; 3.01	0.611
Class 2: Frequent heroin injectors	0.74	0.29; 1.92	0.541



Conclusion

- Three latent classes
 - Polysubstance injectors
 - Frequent heroin injectors
 - Low frequent injectors
- High mortality risk
- None of latent classes were associated with increased mortality risk
- Cause of death not available

