



VEdeTTe

EFFECTIVENESS OF TREATMENTS FOR HEROIN ADDICTION

A cohort study in Italy

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The *VEdeTTe* study

- Longitudinal cohort study started in 1998

13 Italian regions involved



11,905 patients enrolled from
115 Public Drug Addiction Centres

- Aims:

- to evaluate treatment effectiveness in reducing drug-related mortality
- to identify risk factors for leaving treatment

Retention analysis

❖ **Aim:**

to identify risk factors for leaving methadone maintenance treatment (MMT)

❖ **Unit of analysis:**

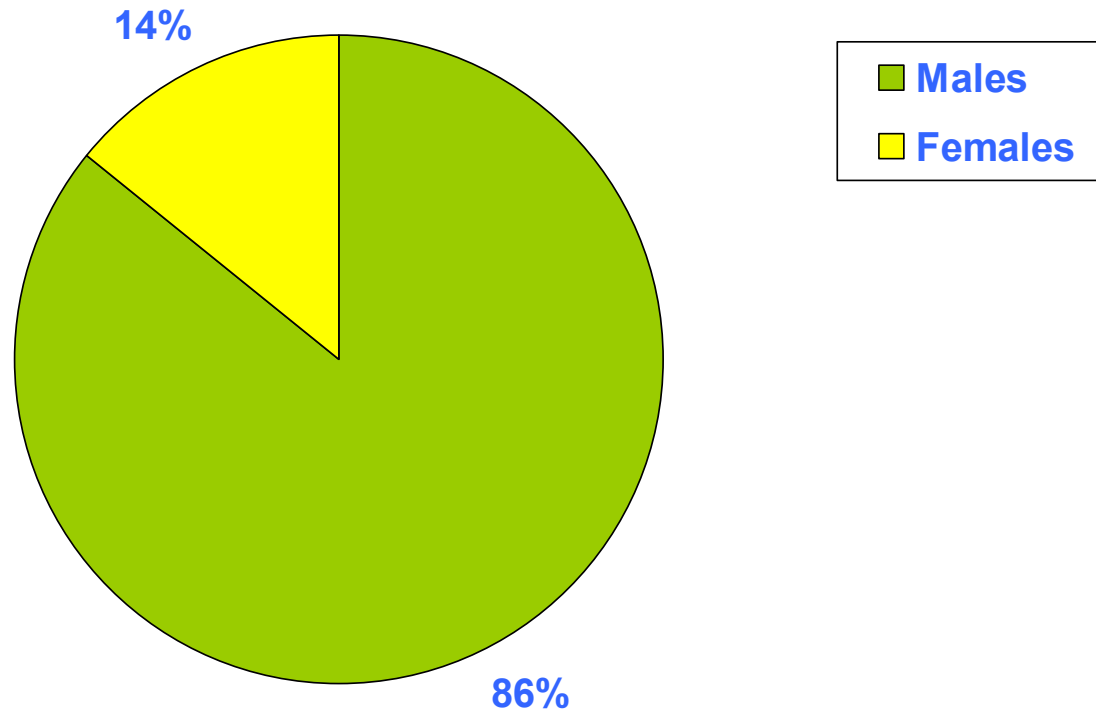
Methadone Maintenance **Treatments**
started

from 6 months before through 6 months after
the beginning of the study

analysis units **N = 4635**
Subjects **N = 3629**

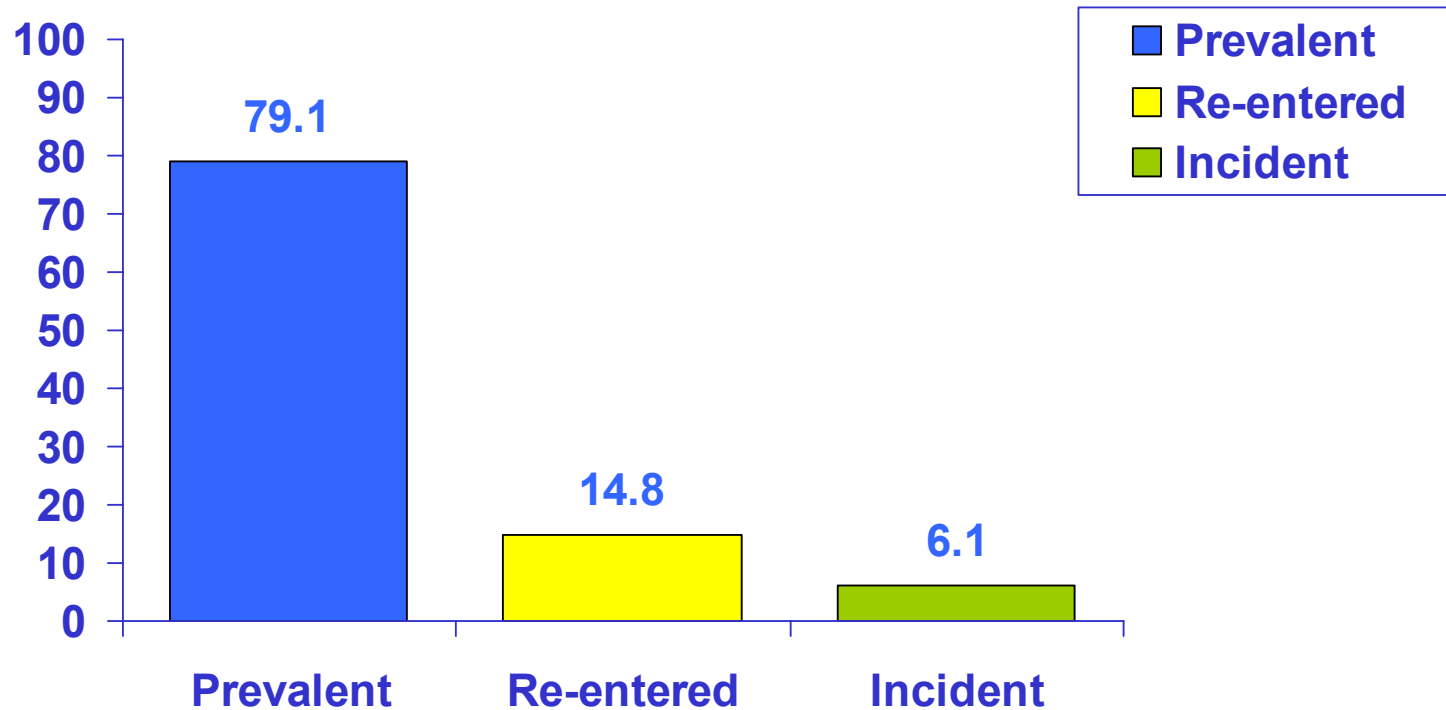
minimum observation period: 12 months

Patients: gender (N=3629)

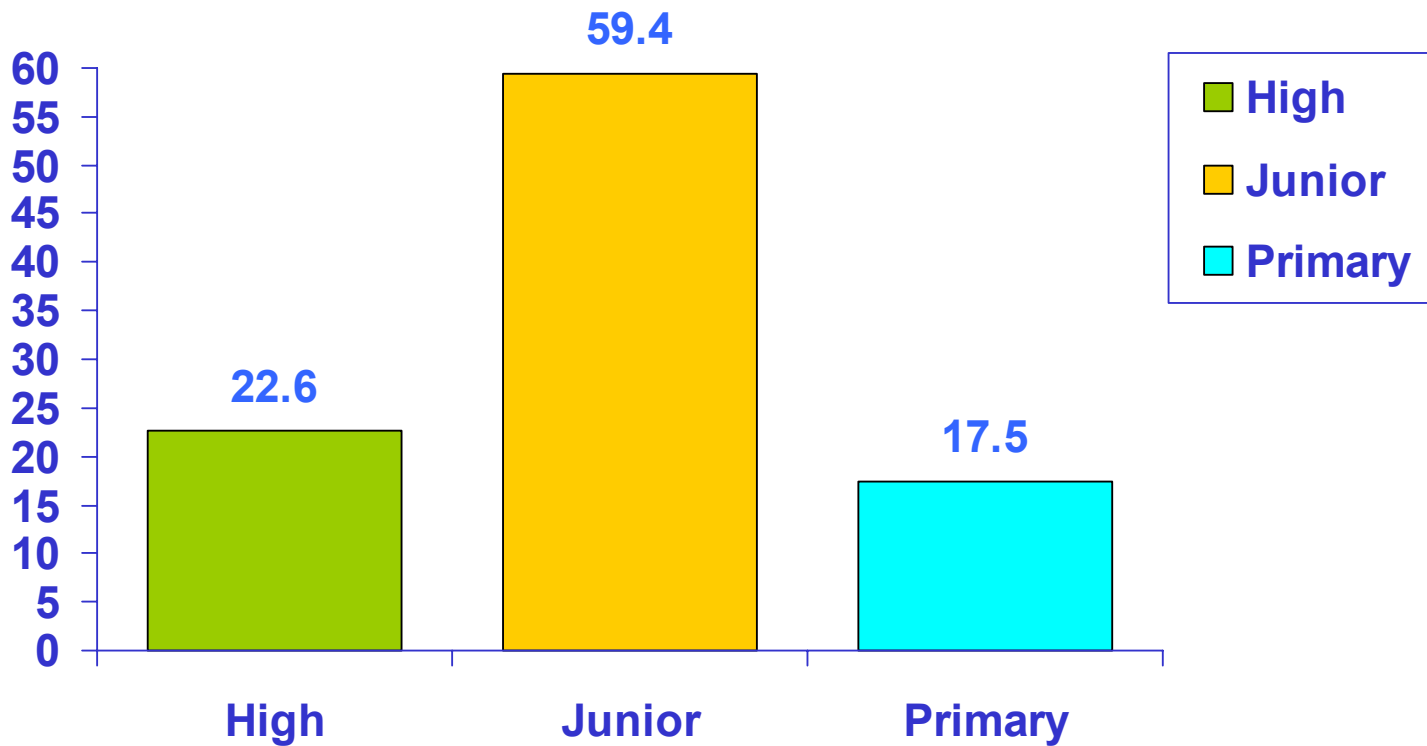


Patients: classification

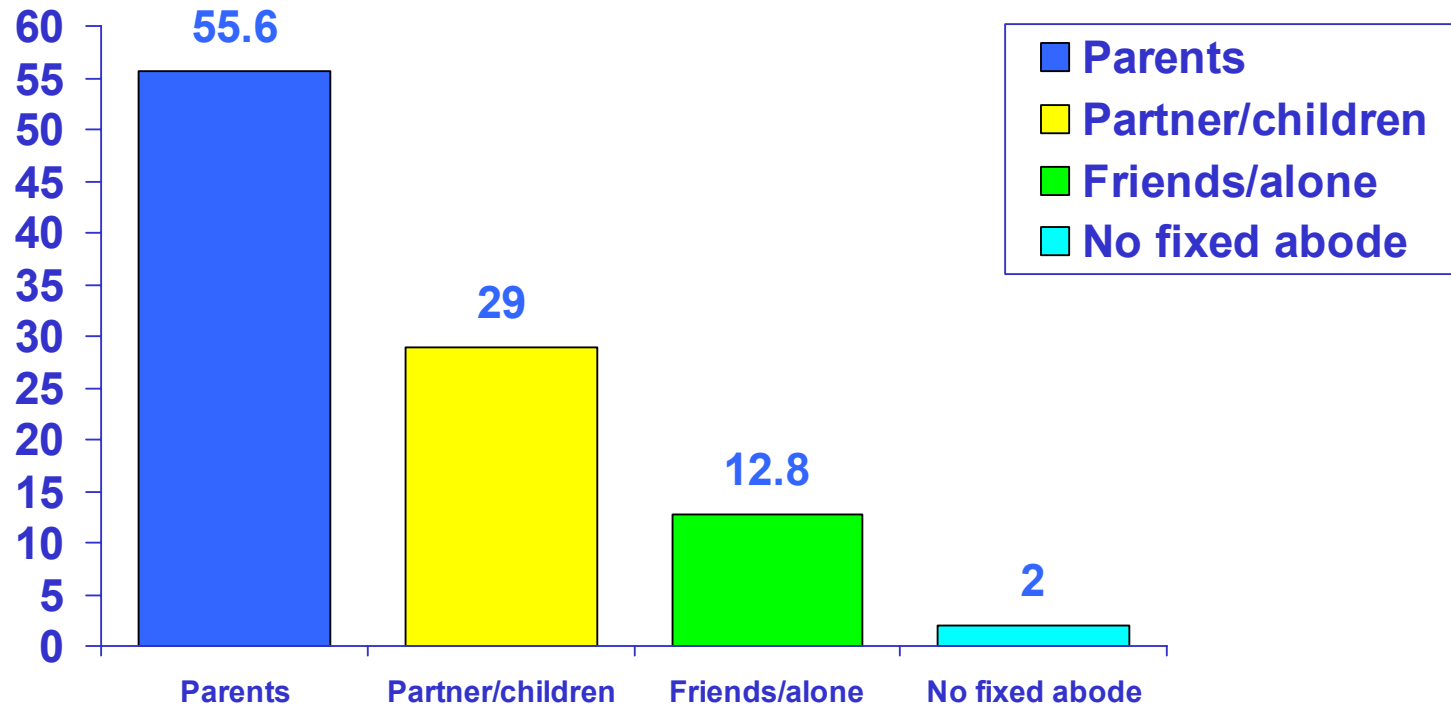
(N=3629)



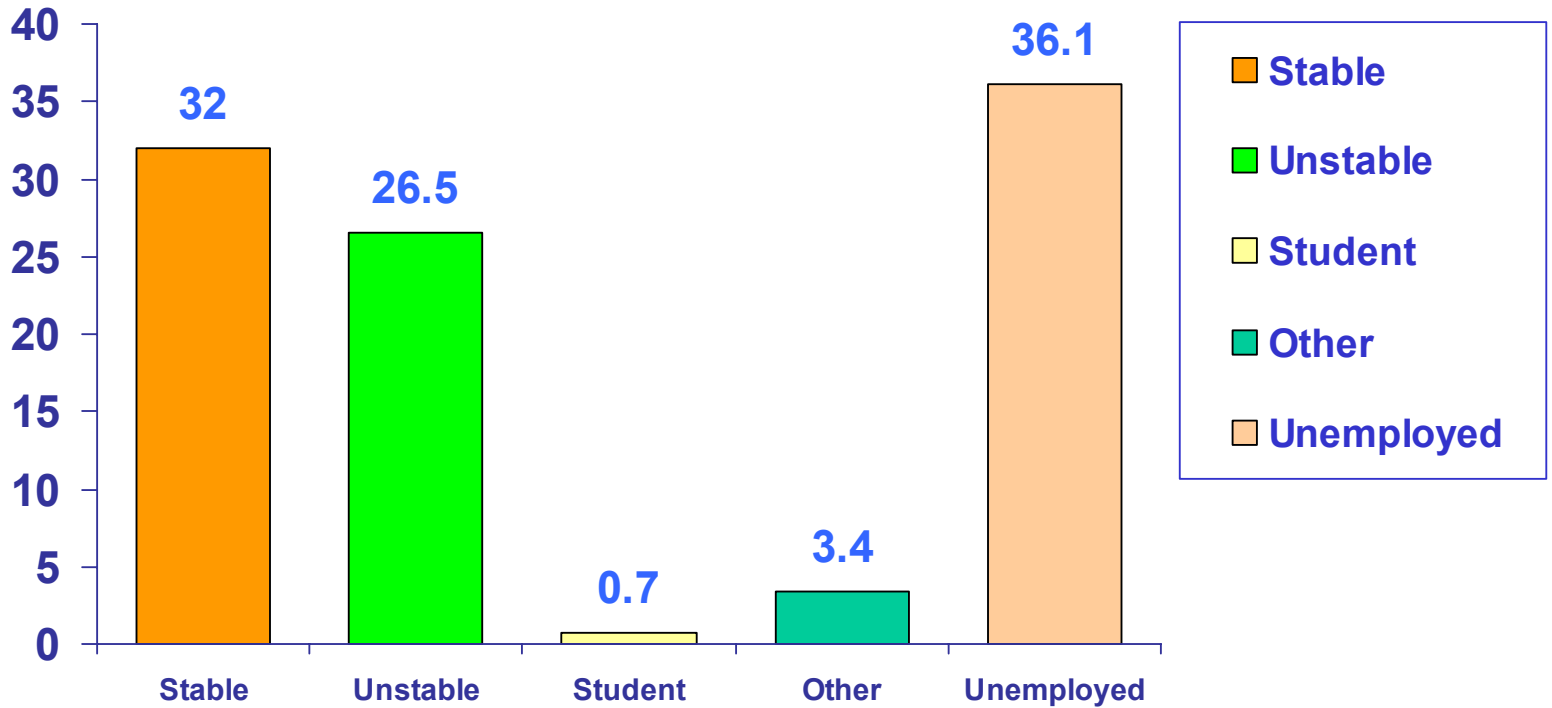
Patients: education (N=3629)



Patients: housing (N=3629)



Patients: job (N=3629)



Retention analysis: methods

DROP-OUTS were defined as

**PATIENTS WHO LEFT THE TREATMENT
WITHOUT AGREEMENT WITH DOCTORS**

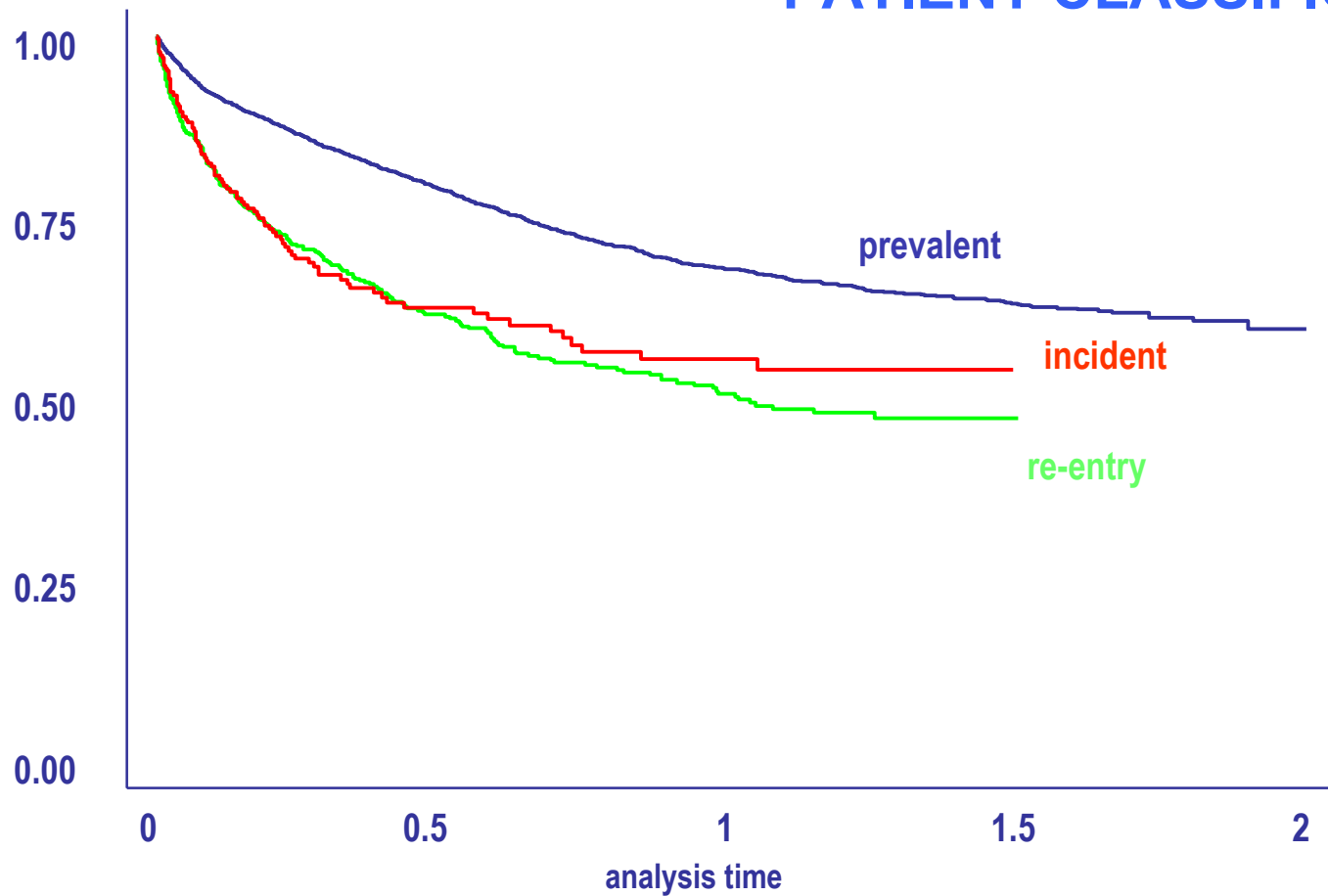
The analysis was performed using

**Kaplan-Meier survival curves
and
Cox regression model**

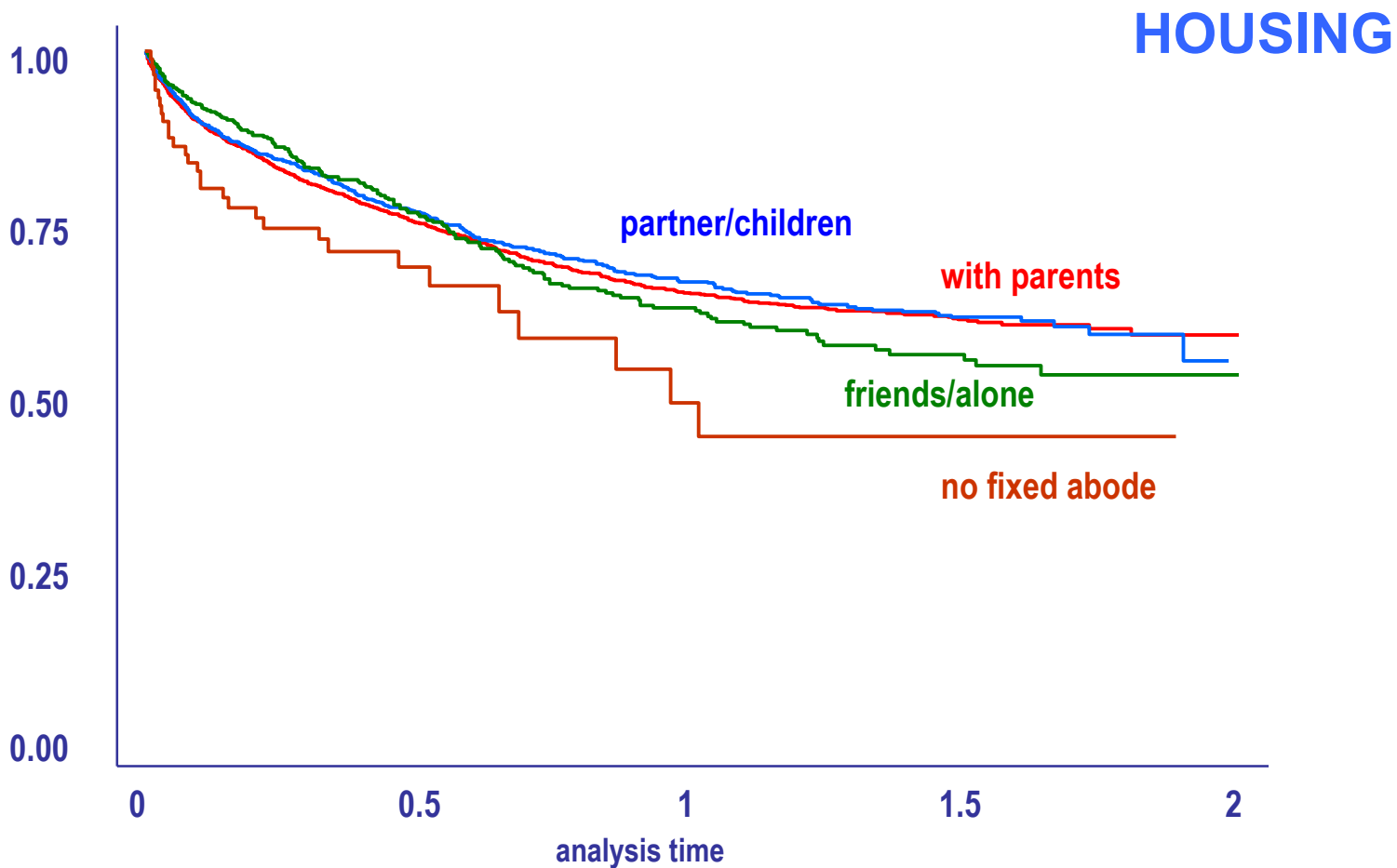
- ❖ **Proportional Hazard Assumptions checked through:**
 - graphical assessment method
 - Schoenfeld residuals for each strata
- ❖ **Adjusted Hazard Ratios were estimated**

Kaplan-Meier survival estimates

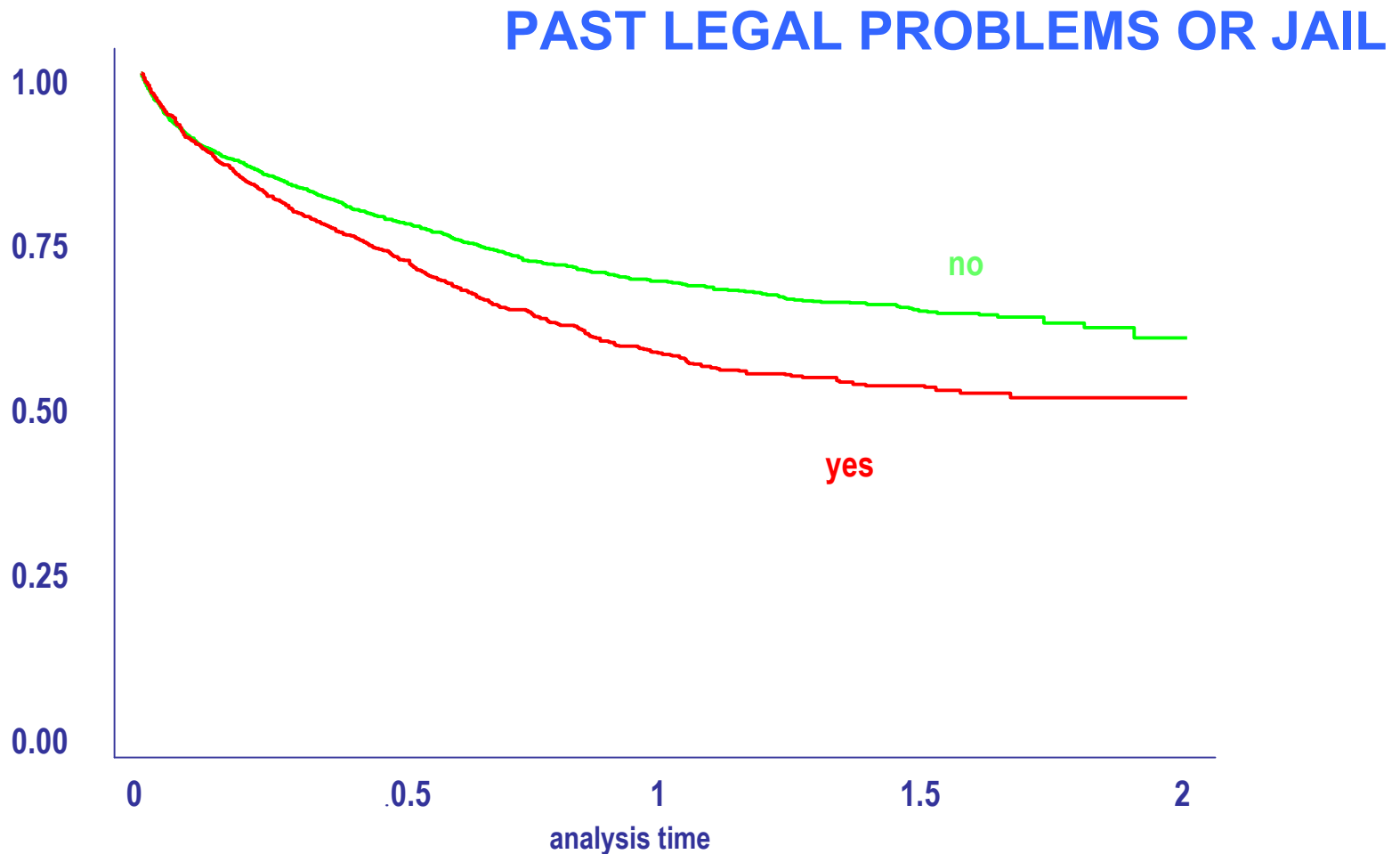
PATIENT CLASSIFICATION



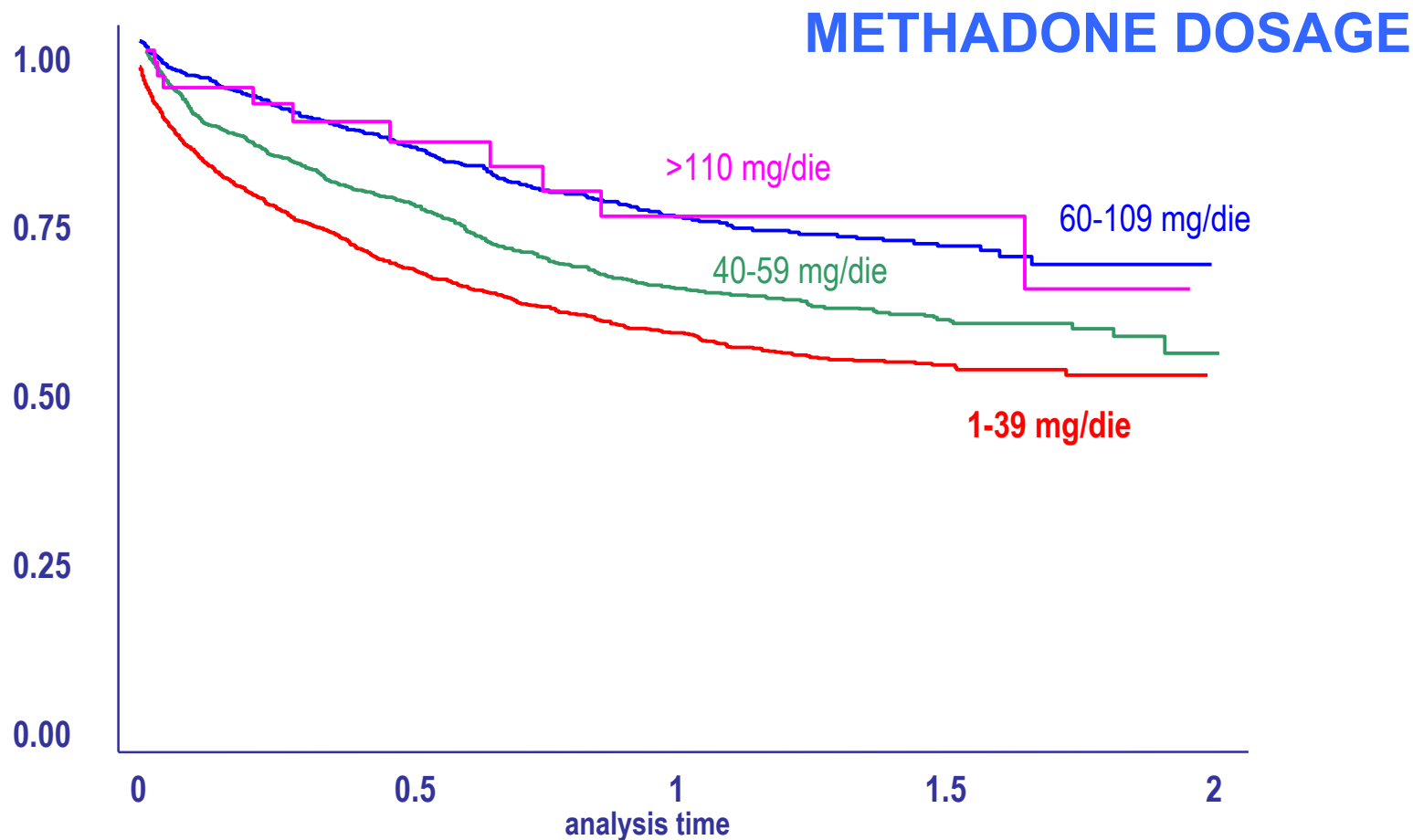
Kaplan-Meier survival estimates



Kaplan-Meier survival estimates

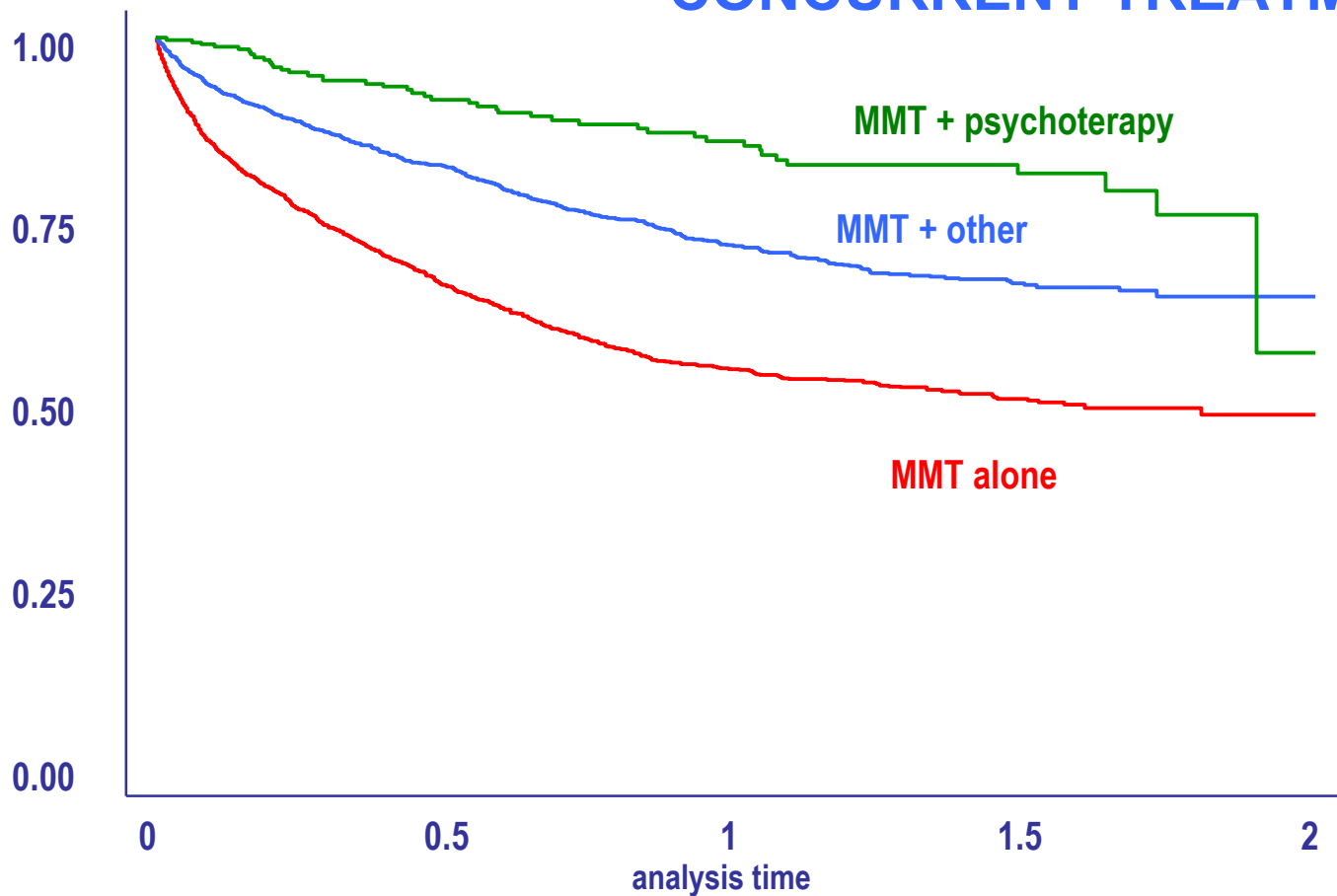


Kaplan-Meier survival estimates

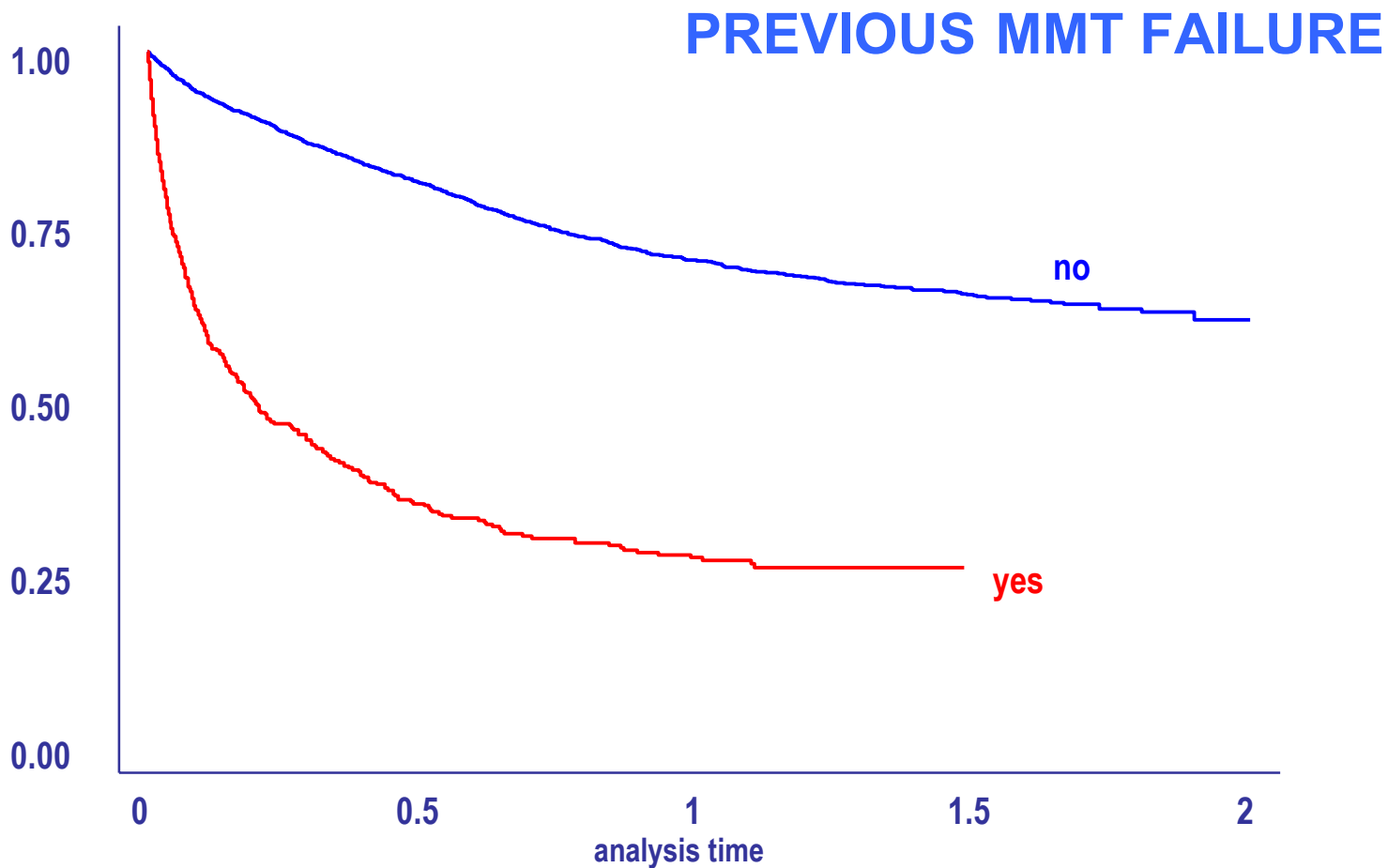


Kaplan-Meier survival estimates

CONCURRENT TREATMENT



Kaplan-Meier survival estimates



Drop-out determinants (n=4439)

Determinant	N drop-outs/N	Hazard Ratio	IC95%	P for trend
Gender				
- Male	1119/3808	1		
- Female	159/631	0.99	0.83-1.17	
Age				
- > 34 years	359/1317	1		
- 30 - 34 years	354/1325	1.03	0.89-1.20	
- 25 – 29 years	357/1230	1.11	0.97-1.29	
- < 25 years	208/567	1.28	1.07-1.53	0.009
Patient classification				
- Prevalent	945/3540	1		
- Re-entry	241/634	1.62	1.40-1.87	
- Incident	92/265	1.59	1.27-1.98	
Place of enrolment				
- North	350/1624	1		
- Centre	371/1179	1.21	1.04-1.40	
- South and Islands	557/1636	1.30	1.13-1.50	

Drop-out determinants (n=4439)

Determinant	N drop-outs/N	Hazard Ratio	IC95%	P for trend
Education				
- High school/degree	270/1000	1		
- Junior high school	754/2658	0.95	0.82-1.09	
- Primary school/none	254/781	0.98	0.82-1.18	0.874
Occupation				
- Employed	346/1440	1		
- Unemployed	932/2999	1.34	1.18-1.52	
Heroin use				
- No	339/1642	1		
- Yes	939/2797	1.56	1.37-1.78	
Cocaine use				
- No	928/3400	1		
- Yes	350/1039	1.09	0.95-1.23	

Drop-out determinants

(n=4439)

Determinant	N drop-outs/N	Hazard Ratio	IC95%	P for trend
Sharing needle and injection tools				
- No	979/3515	1		
- Yes	299/924	1.20	1.05-1.37	
HIV-HBV-HCV				
- No	630/1842	1		
- Yes	648/2597	0.83	0.74-0.94	

Drop-out determinants (n=4439)

Determinant	N drop-outs/N	Hazard Ratio	IC95%	P for trend
Previous MMT				
- No	868/3475	1		
- Yes	410/964	1.22	0.96-1.55	
Previous MMT failure				
- No	942/3903	1		
- Yes	336/536	3.25	2.52-4.20	
Daily MMT dose (mg)				
- 1-39 mg	659/2086	1		
- 40-59 mg	418/1433	0.86	0.76-0.97	
- >59 mg	201/920	0.66	0.56-0.78	<0.0001
Concurrent treatment				
- MMT alone	764/2097	1		
- MMT + other	471/2034	0.57	0.51-0.64	
- MMT + psychotherapy	43/308	0.31	0.23-0.42	<0.0001

Conclusions

- ❖ incident and re-entry subjects are at increased risk of leaving MMT when compared with prevalent subjects
 - ❖ unstable occupation and housing
 - ❖ sharing needle and injection tools
 - ❖ heroin use at the time of interview
 - ❖ previous MMT failures
- are risk factors for leaving MMT
- ❖ high methadone dosages
 - ❖ the association with other treatments (psychotherapy)
- are predictive of better retention