



Outcome of heroin dependent adolescents commenced on opiate substitution treatment.



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Treatment (2011), In press



Heroin Dependence in Adolescents

- Opiate Substitution Treatment (OST) has substantial evidence base in adults
- Limited research conducted in teens
- USA & Canada require past failed detox
- SAMSHA believe OST underutilised in USA
- Without treatment, high risk of
 - Ongoing & escalating heroin use
 - Mortality (1-3% per annum)
 - Hepatitis C infection (66/100 pyar)

“It will not be appropriate to detoxify all opioid-dependent young people. ..severe dependence multiple difficulties including mental health problems ... may indicate that they may be more suitable for maintenance. The decision ... should be made by a multi-disciplinary team”

Guidance for the pharmacological management of substance misuse among young people



Staff Team at YPP

- Project workers – 1 ½
- Psychiatry Reg – ¾
- Clinical Psychologist – ½
- Consultant Child psychiatrists – 3/10
- Nurse – ½
- SW – ½

- Previously
 - Counsellor
 - Family Therapy
 - Project Manager



Treatment

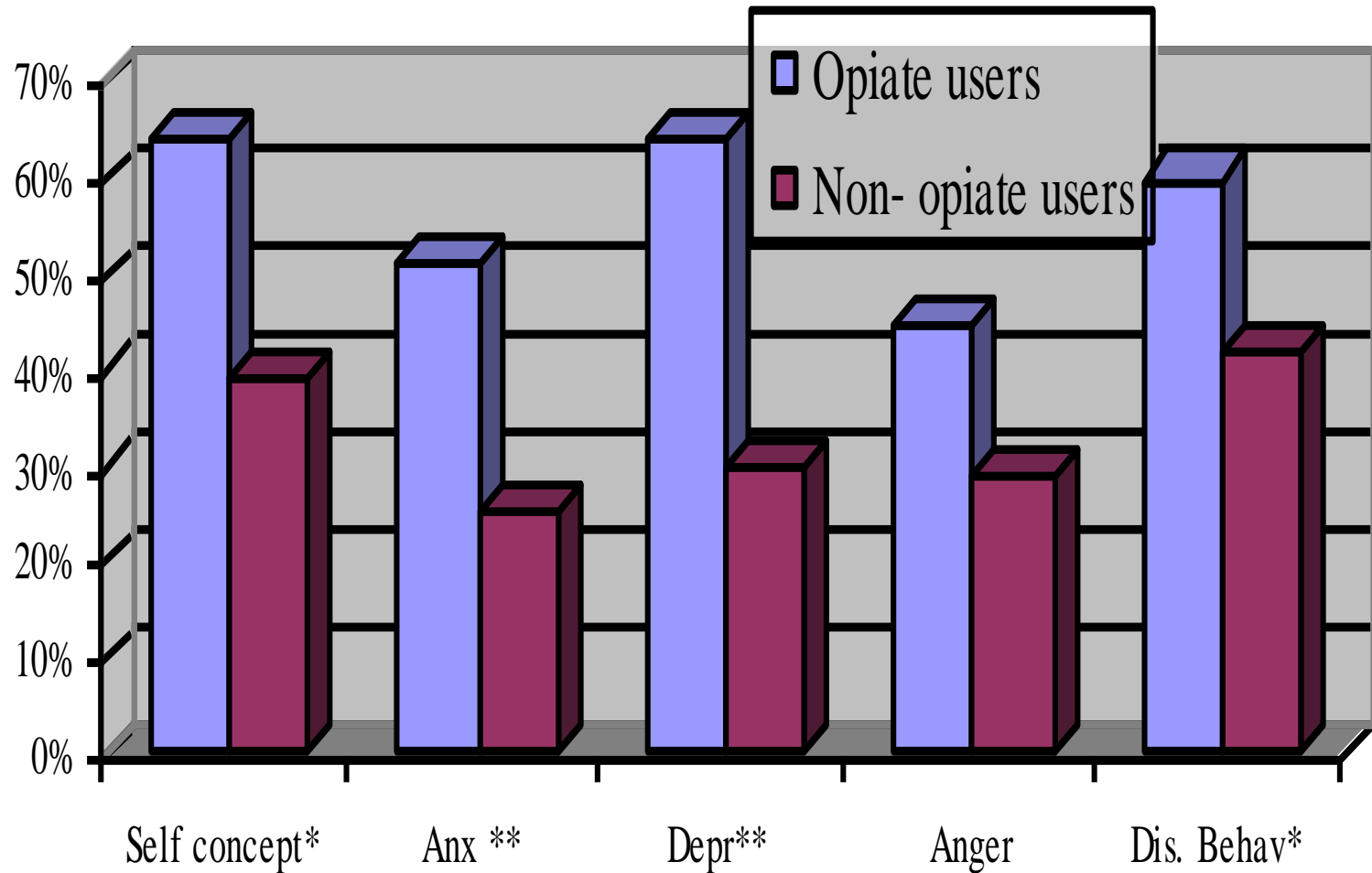
- Substitute prescribing
 - Methadone
 - Buprenorphine
- Stabilization, then detox (Outpatient or residential)
- Supervised dispensing & Urinalysis
- Contingency management
 - ‘Take-aways’ to reinforce abstinence
- Psychological
 - Individual therapy (Motivational interviewing, CBT, ACRA)
 - Family therapy/counselling
- Key workers (& Social Worker) focus on integration, links with local community, & addressing social needs.
 - Vocational, Accomodation, Leisure

Socio-Demographic Characteristics

	%	Mean
Age in Years		16.6
Age last attended education *		14.4
In School or training	11	
Two parent family support	54	
Parental alcohol abuse	60	
Sibling Opiate abuse	43	
Ever in care	30	
Homeless in past month	30	
Previous criminal convictions *	43	
Ever incarcerated *	27	
Current boyfriend/girlfriend using heroin *	42	

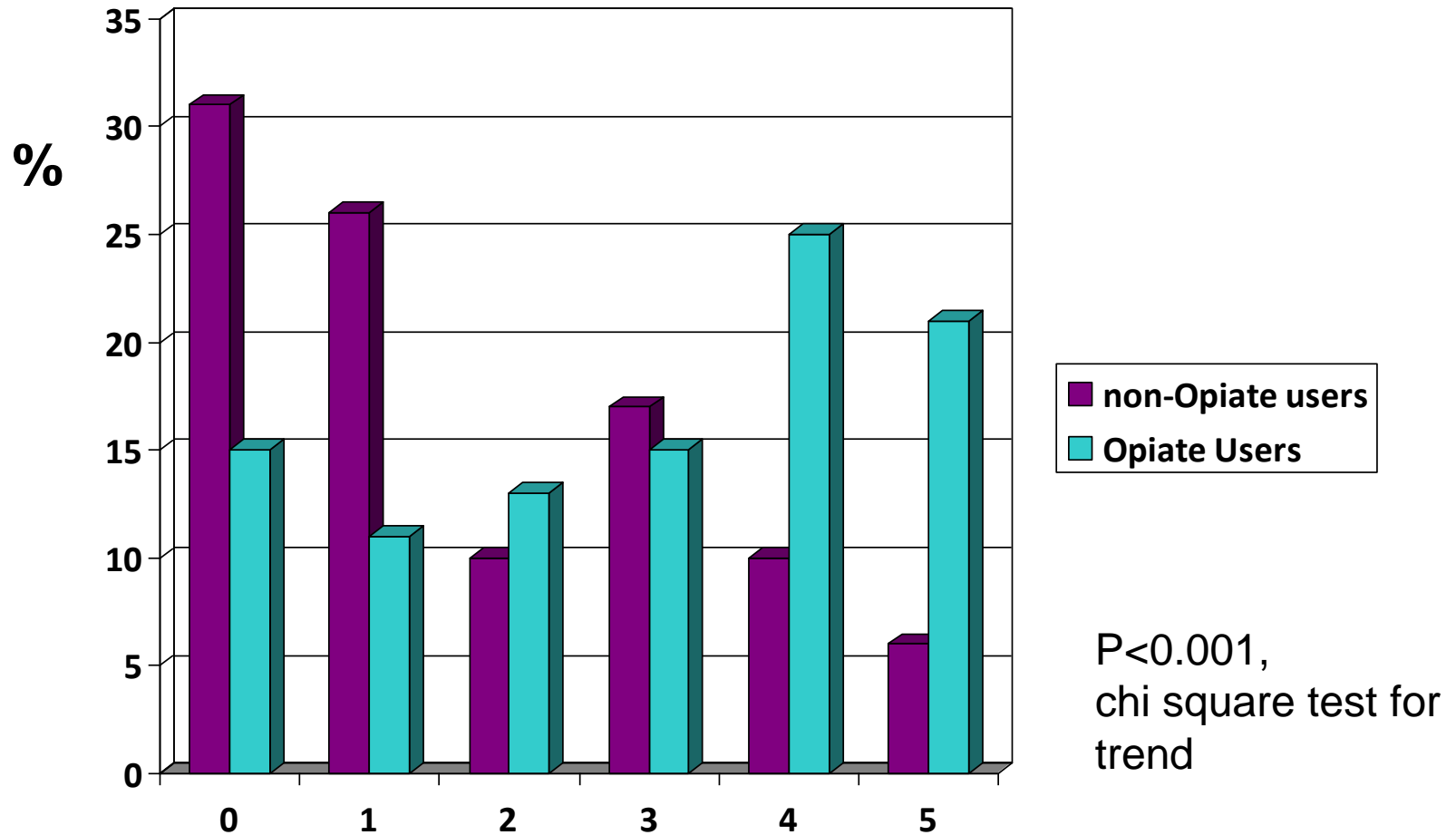
<i>Psychiatric History</i>	%
Ever seen a psychiatrist	50
History of deliberate self harm	30
<i>Substance Use</i>	
Age of first heroin use	14.7
Months of regular heroin use	16.5
Number of 'bags' of heroin per day	3.5
<i>Past Month Drug Use</i>	
Benzodiazepine misuse	55
Use of black market methadone	53
Cocaine use	19
Ever injected	47

Psychological wellbeing

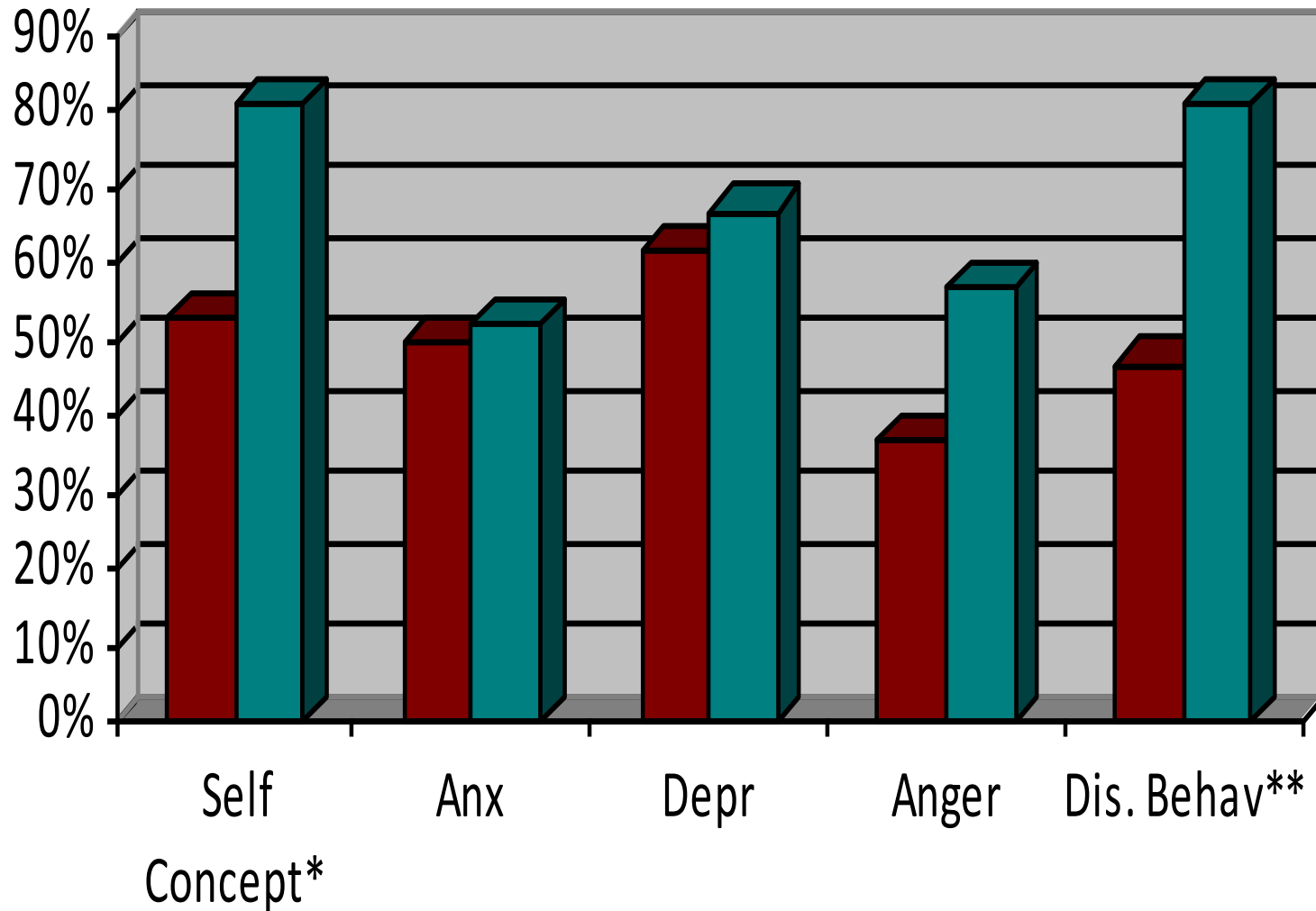


Keane L, Ducray K, Smyth BP (2011) *Journal of Child & Adolescent Substance Abuse*, in press

Number of problems in Moderate to severe range



Mental Health & Gender



Drug Use

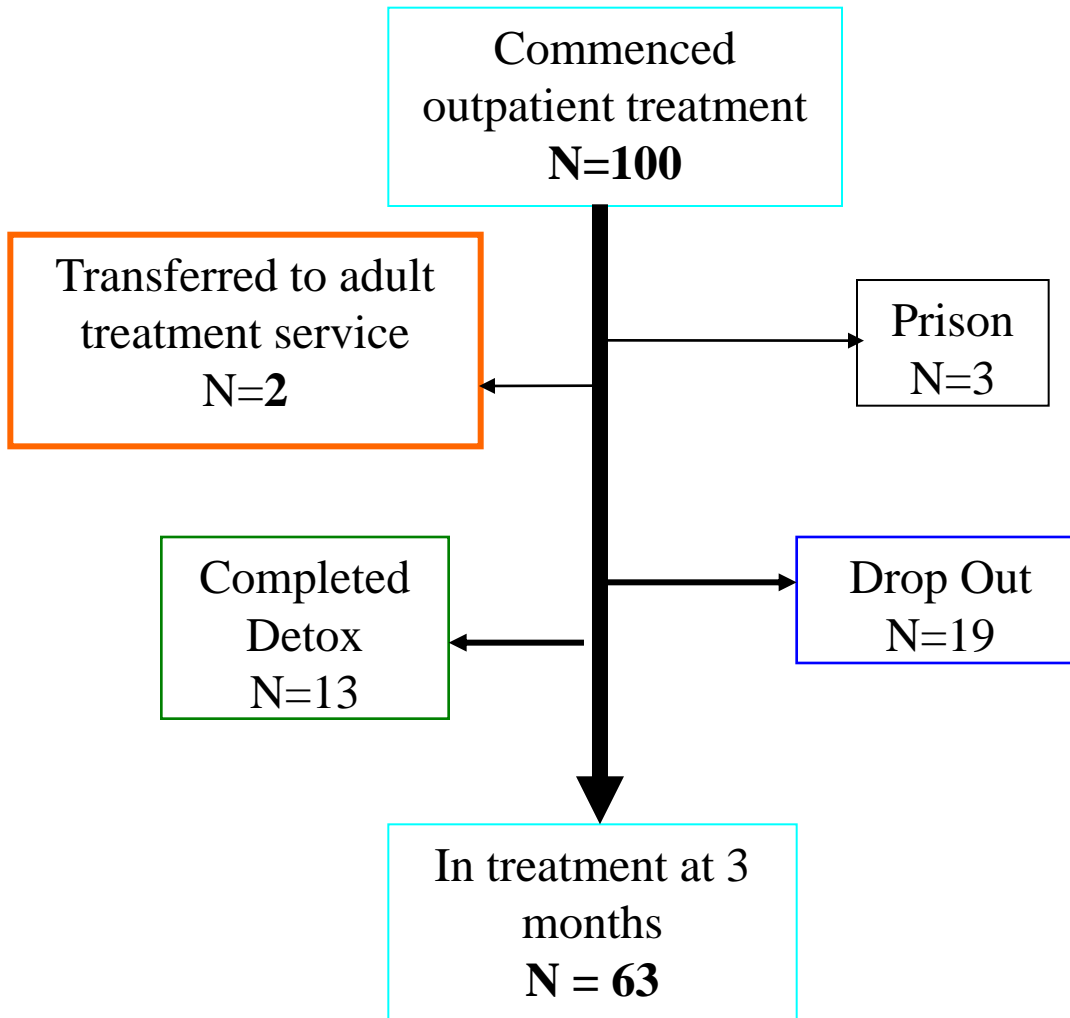


Social & Emotional Problems

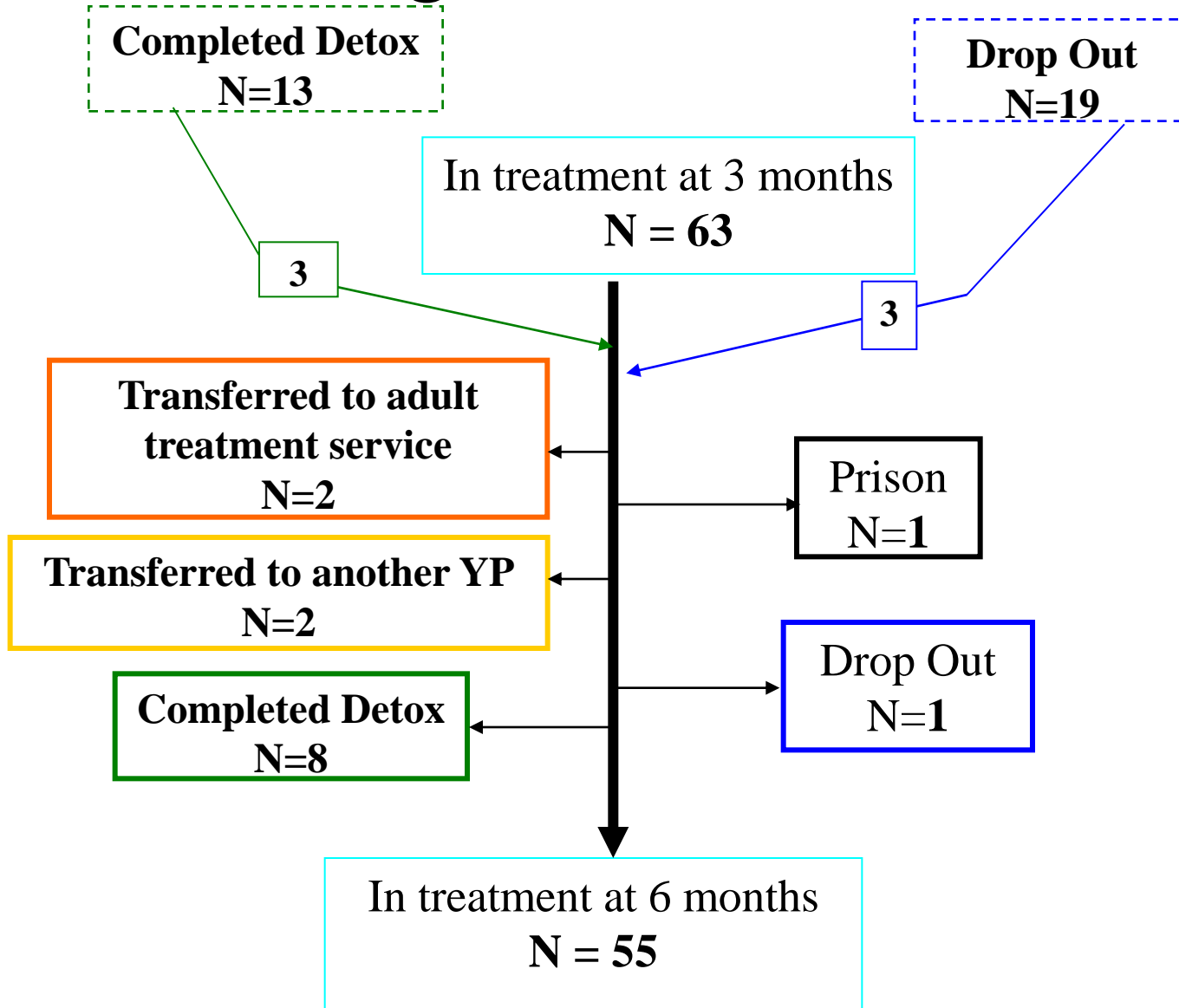
Aims

- Describe journey through treatment
- Determine the proportion of heroin dependent adolescents who achieve planned discharges following detox completion
- Determine impact of treatment on heroin use
- Measure change in benzo use during treatment
- Measure HCV incidence & mortality on OST

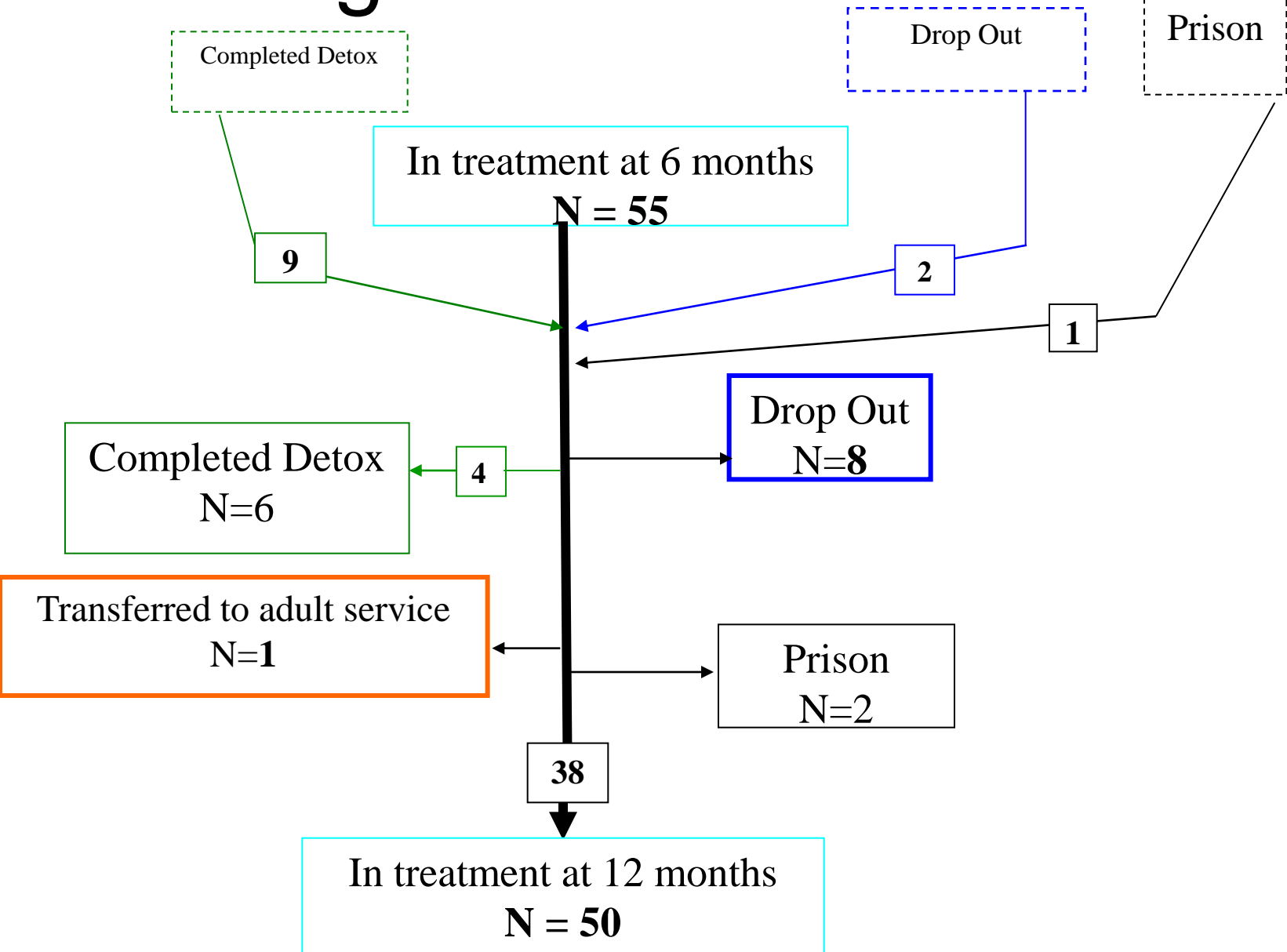
Three Month Outcome



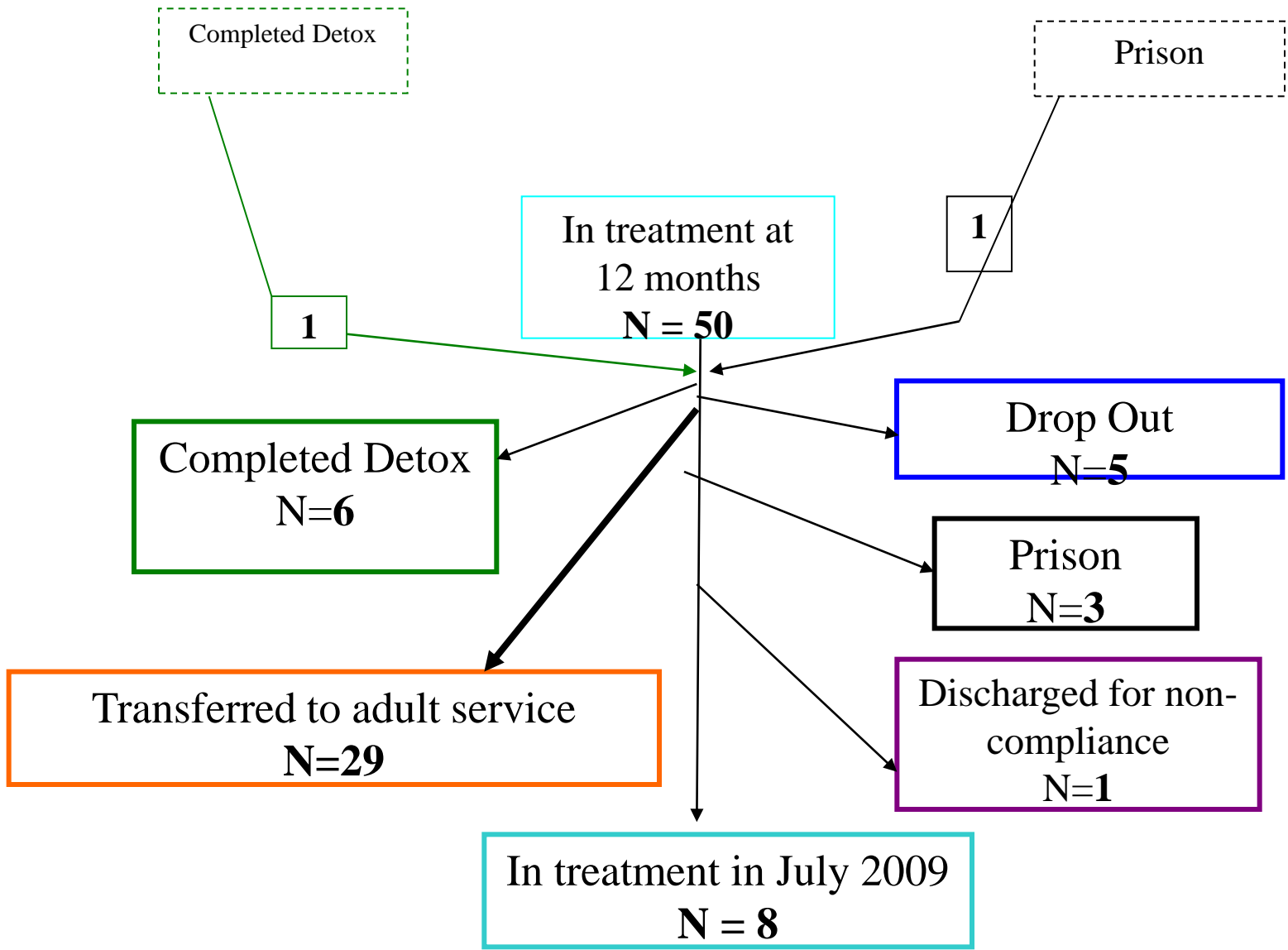
Progression Month 3 to 6



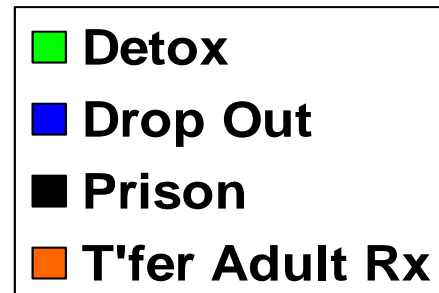
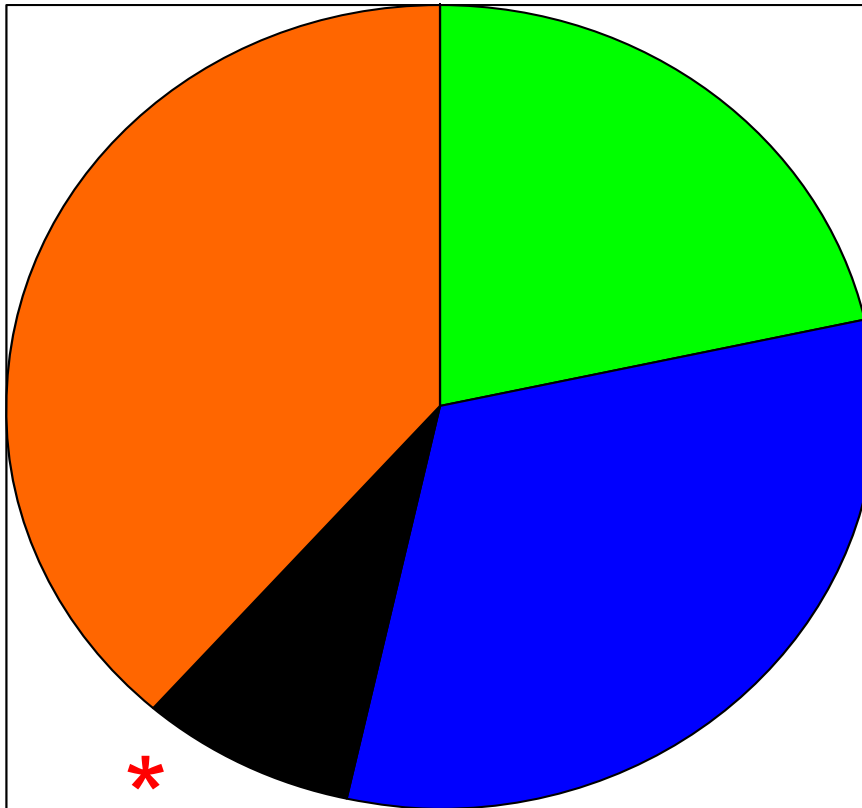
Progression 6 to 12 months



Outcome after 12 months



Final Progression

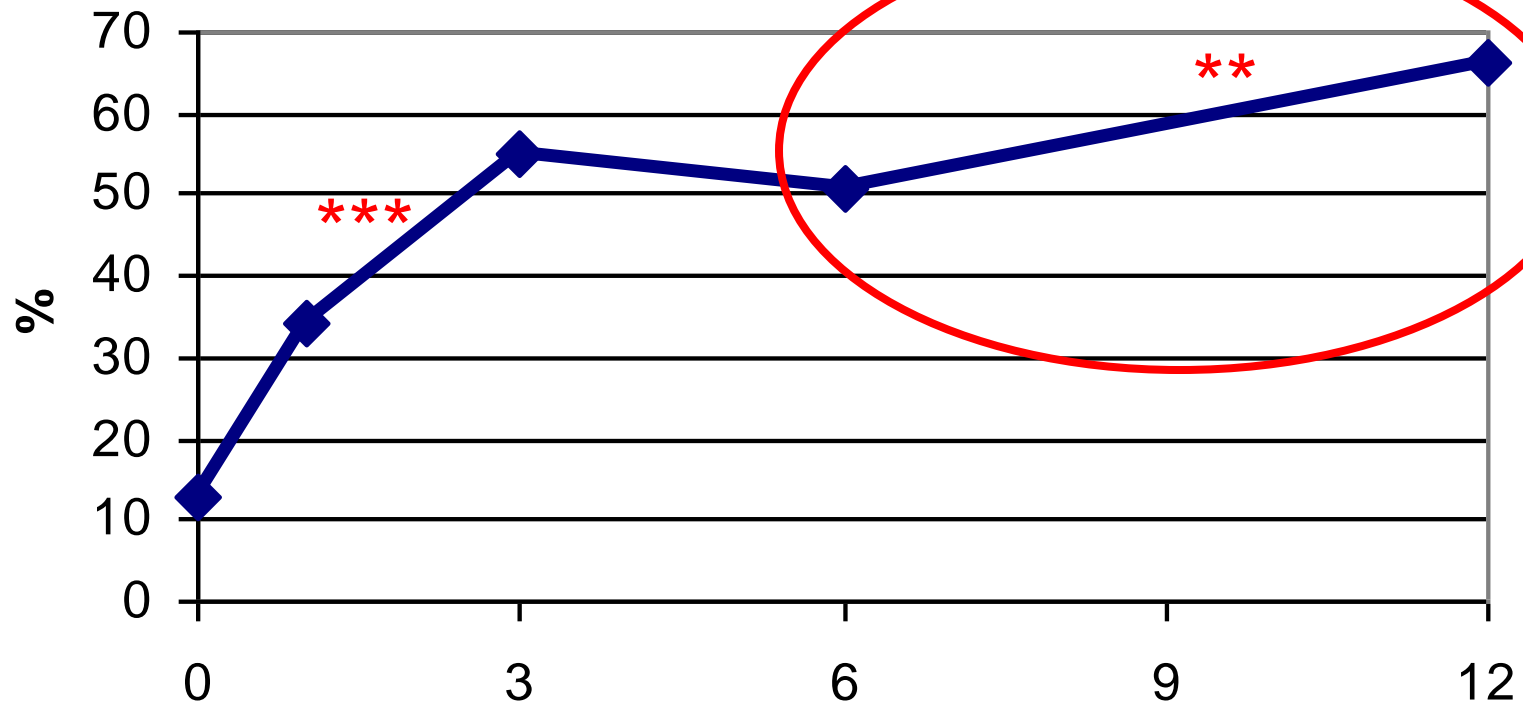


7 (19%) of those who were transferred to adult program did complete a detox a some stage.

Time in Treatment

	Median	IQR
Detox	4	2-19
Drop Out	8	3-13
Transfer	23	15-31

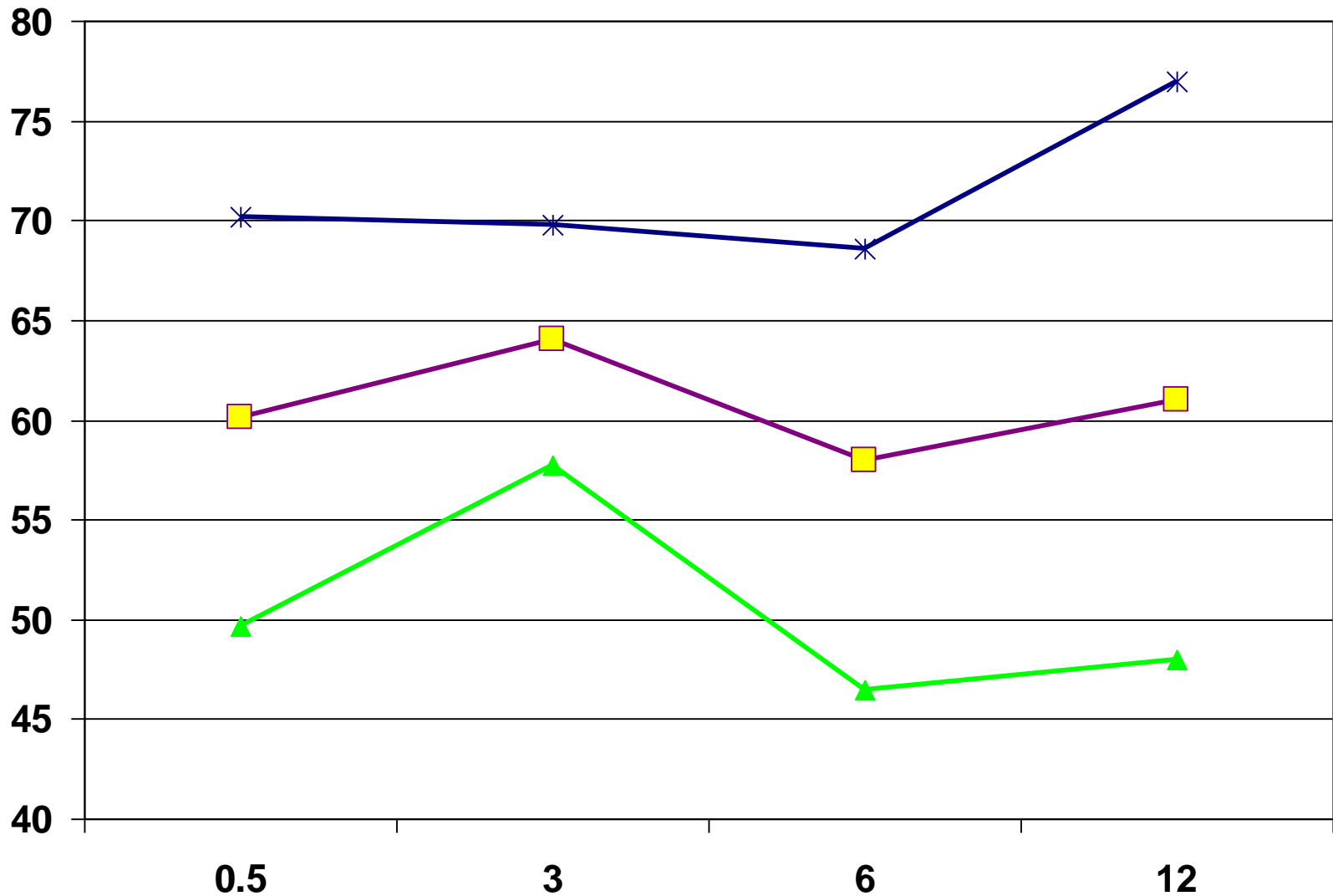
Mean proportion of samples negative for opiates



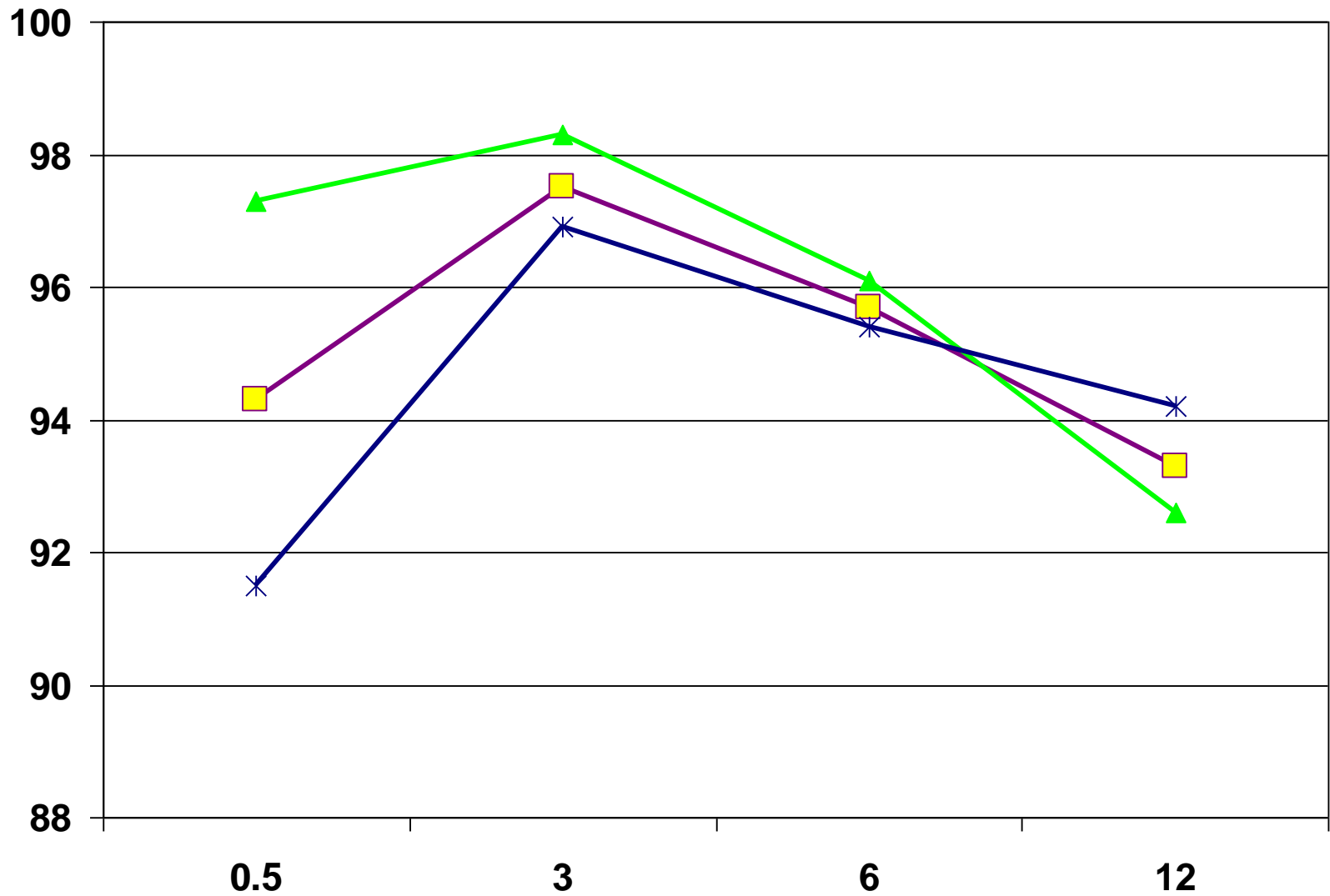
*** $p < 0.001$

** $p = 0.001$

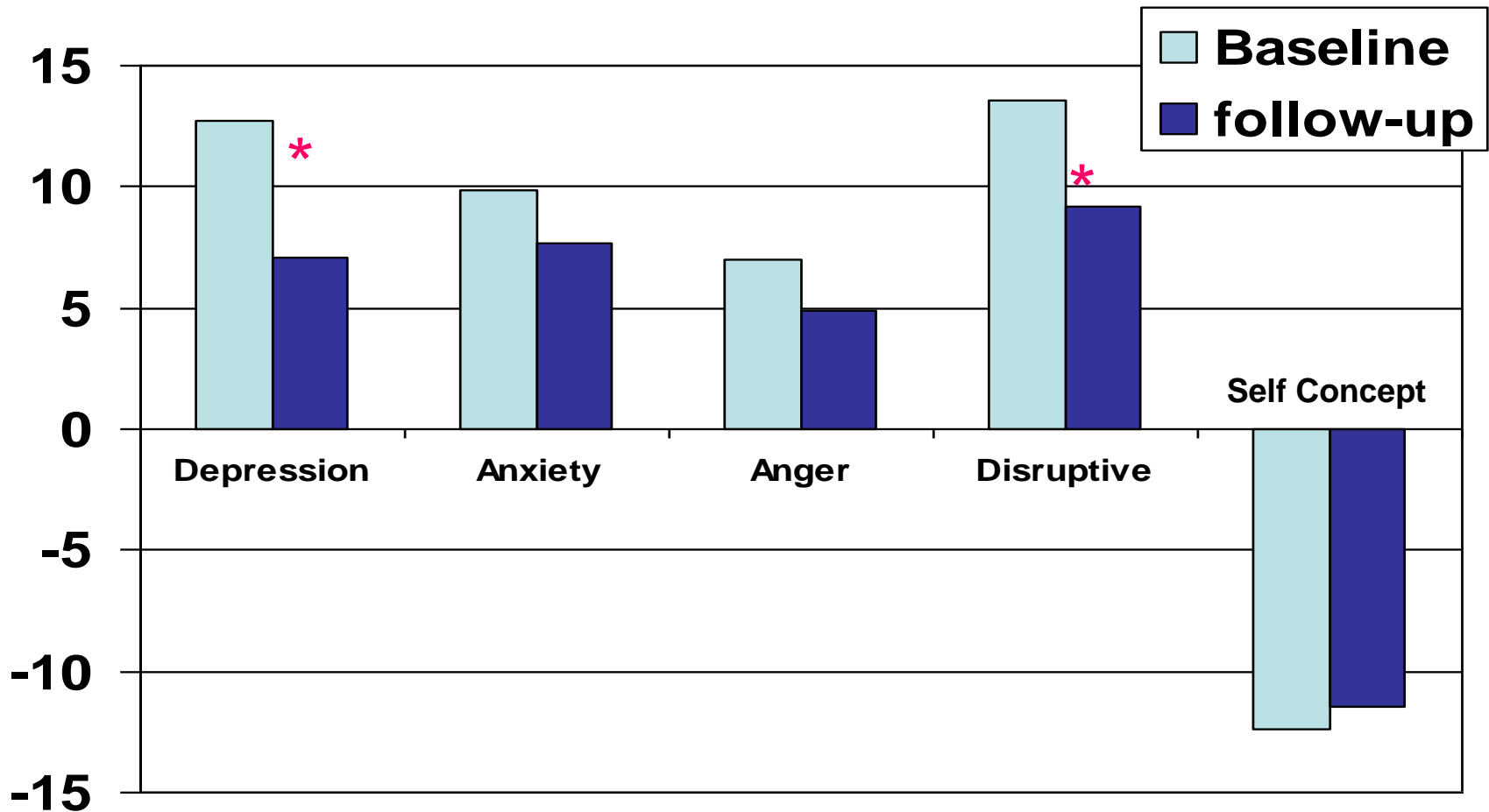
No change in Benzo Use



Cocaine Use



Improvement in Psychological wellbeing



* $p < 0.05$

Viral Infection & Mortality

- 84 tested at baseline, 17 (20%) were antibody +ve
- 37 of those who initially tested negative were later re-tested
 - 6 seroconverted (53.4 years of follow-up)
 - incidence of **11 infections/100 PYAR** (95% CI, 4 – 22/100PYAR).
 - incidence of HCV among the 19 injectors = **14/100PYAR** (95% CI, 3-35/100 PYAR).
- HIV – No positive tests ever on YPP.
- No deaths during 129 patient years at risk.

Conclusion

- Multiple & complex needs
- Many psychological problems
- Substantial movement in/out of treatment
 - Drop Outs tend to occur early
 - Many relapse after detox
- While 22% exit via detox, most common progression is to adult program
- Heroin use reduces greatly, **and** incrementally
- Mortality and incidence of HCV are low
- Mental health improves