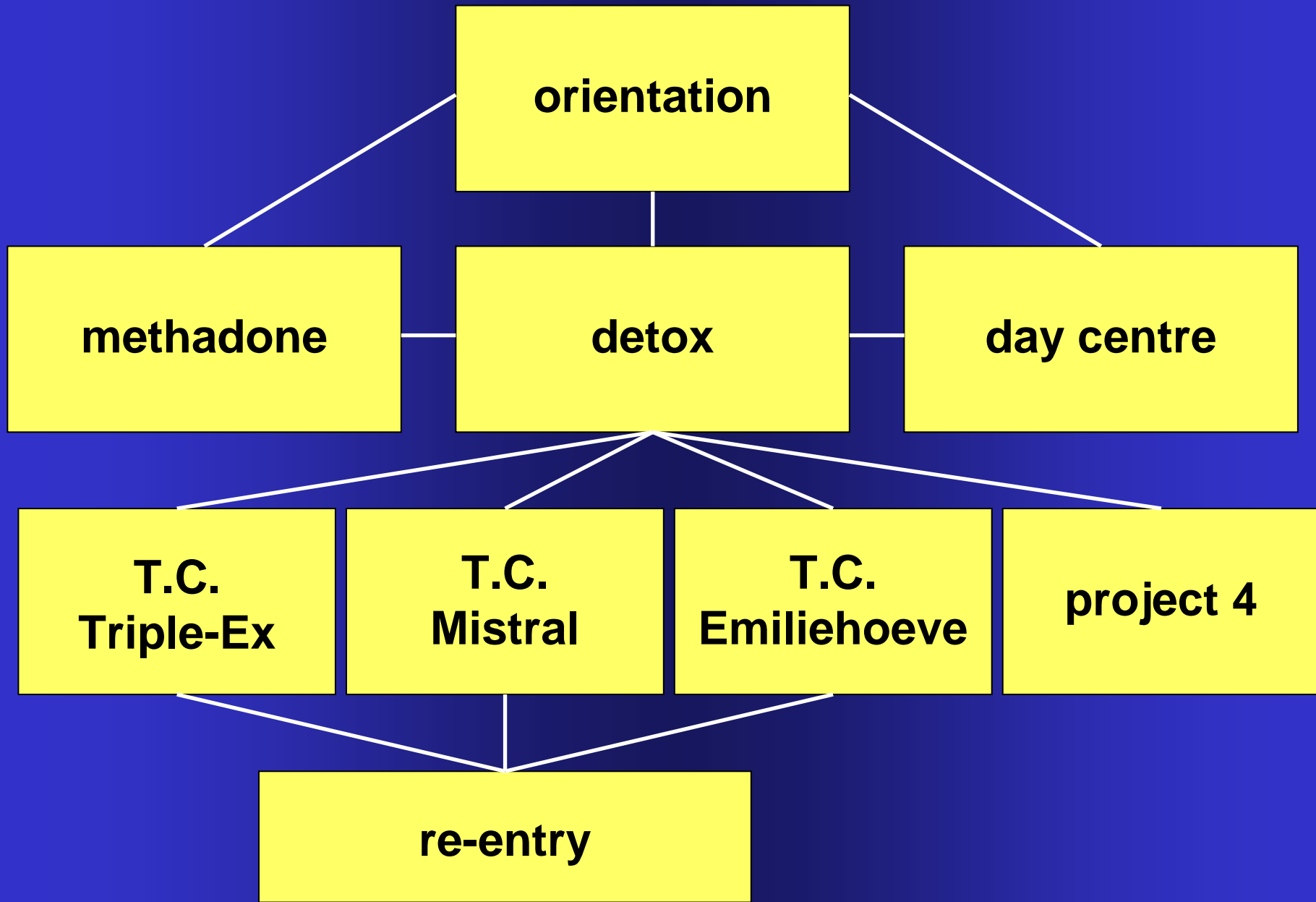


# **Success and limitations of methadone and drug free treatment**

Martien Kooyman

M.D., Ph.D.





Heroin addiction is a symptom of an underlying psychological and/or social problem.

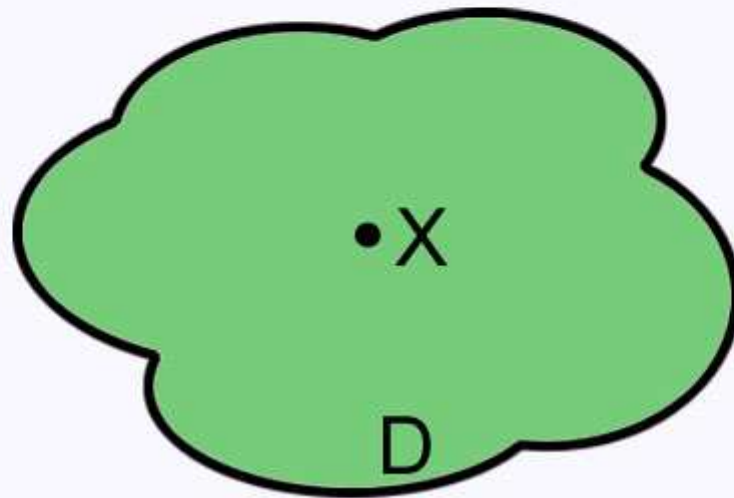
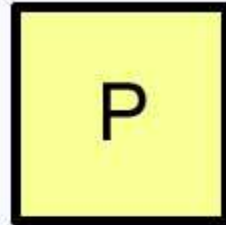
Substitution with methadone does not solve these underlying problems

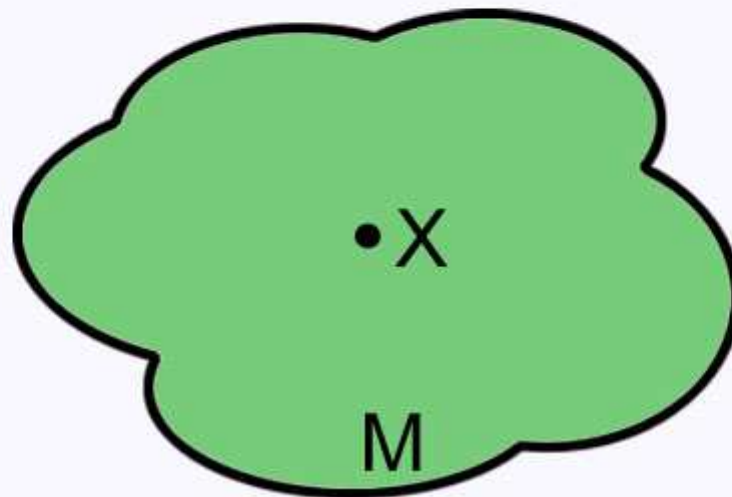
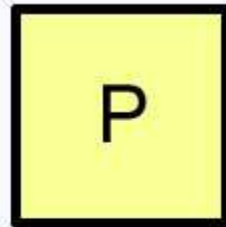
## **Definition of addiction**

Addiction is a self-continuing harmful process resulting from the loss of control over adaptive behaviour which then itself becomes a problem



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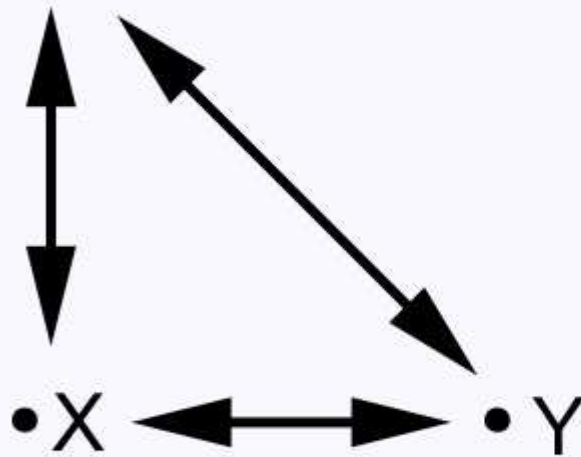






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P



50% of heroin addicts were  
involved in criminal behaviour  
before they used their first drug

Because heroin use is illegal,  
serious secondary problems exist.  
It is questionable if prohibition  
solves more problems than it  
produces

**Drug addicts are a  
nuisance to others, so**

- force them to give up drugs
- lock them up
- supply free drugs
- shoot them

All addicts should be reached by treatment

All addicts should be given methadone

## Methadone and crime Amsterdam

programs →	high threshold with support	low threshold distribution only	no program no methadone
no crime	60%	33%	41%

(Leuw, 1998. Scientific Research Dept. Min. Justice)



## Profits from methadone and crime

Programmes	High threshold	Low threshold	No programme	N
Low profits from crime	24%	31%	34%	43
High profits from crime	16%	36%	34%	36
No profits	60%	33%	41%	69
Total N	62	42	44	148

(Leuw, 1998)

Only methadone substitution programmes with sanctions regarding illegal drug use have positive effects on criminality

## Amsterdam City Methadone Distribution Program (1982)

70% of daily doses are collected

drop outs: 53% < 15 wks  
32% < 4 wks

Daily dose capacity: 1200

Total in treatment: 1981: 3288  
1982: 4370

## Criteria for success

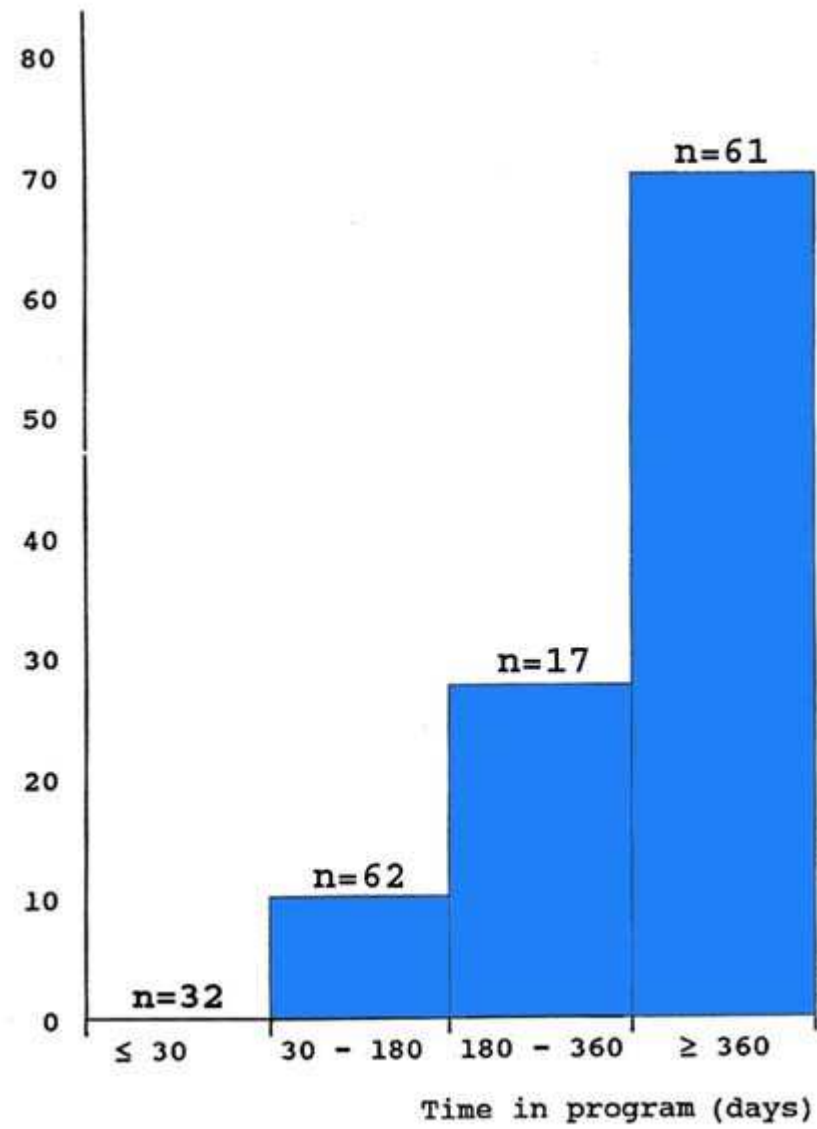
- no use of hard drugs
- no alcohol problems
- less than once a week cannabis,  
tranquillizers or sleeping pills used
- no drug related arrests or convictions
- no treatment for addiction
- no admission to a psychiatric hospital

# Success half year before interview of all clients two years out of program with follow-up

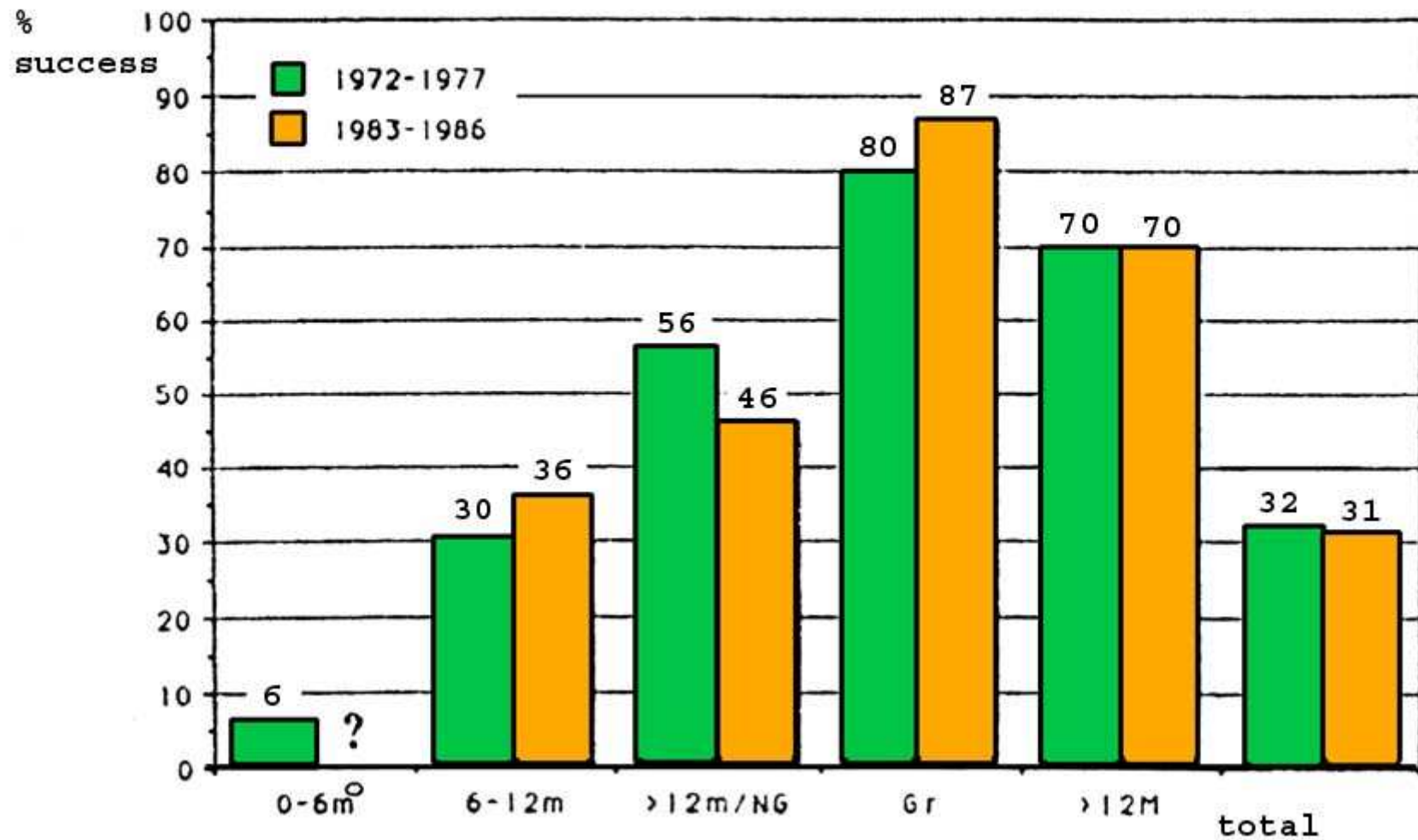
	<b>EH N= 172</b>	<b>ES N= 47</b>	<b>NA N= 62</b>
<b>N</b>	85	20	10
<b>Success</b>			
<b>%</b>	49,4	42,6	16,1

Longer time in program (TIP)  
is related to  
more successful  
outcome

"Success-rate" Clients Emiliehoeve T.C. (n=172)



Percentages of success Emiliehoeve T.C.  
FU 1 (1972-1977) and FU 2 (1983-1986)





## Parent participation (PP), Time in program (TIP) and successful outcome

Emiliehoeve TC

	Clients with PP (N=59)	Clients with no PP (N=44)
Mean TIP	698 days	343 days
% success	64,4 %	25 %

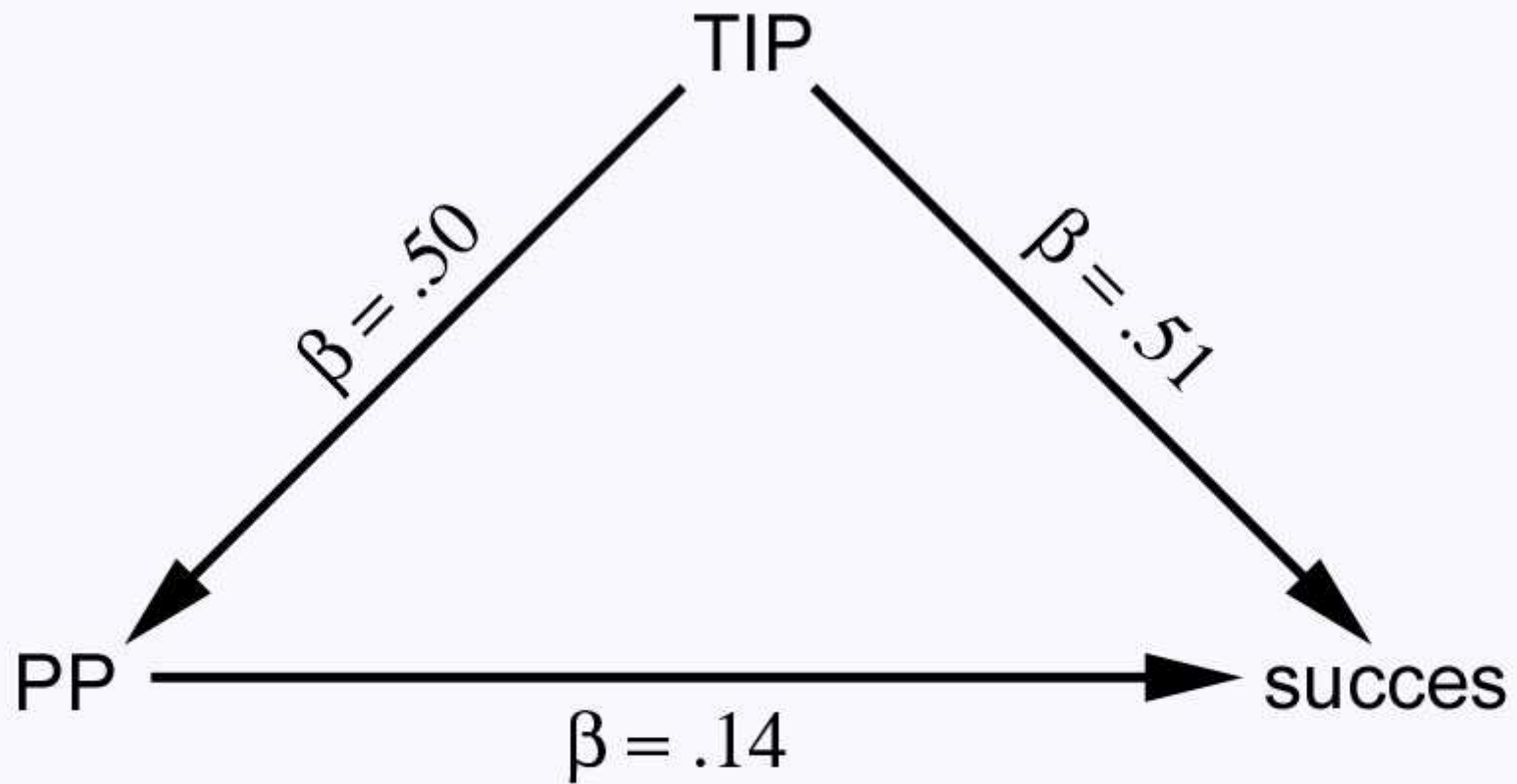
(clients with TIP > 90 days and follow-up)

## Parent participation (PP), Time in program (TIP) and successful outcome

Cascina Verde TC (E. Gori)

	Clients with PP (N=290)	Clients with no PP (N=101)
Mean TIP	304 days	110 days
% success	57 %	28,6 %

(clients with TIP > 90 days and follow-up)



path analysis model causal relationship between TIP, PP and succes

Parent participation (PP) is related to longer time in the program (TIP) and more successful outcome (SO)

PP → longer TIP → more SO

**Treatment outcome in 130 drug addicts who were residents in a Norwegian therapeutic community during 1996 – 1998 as of May 2001. Some addicts had multiple outcomes (Phoenix House Haga).**

	<b>N</b>	<b>%</b>
<b>Current drug abuse</b>	<b>31</b>	<b>23.8</b>
<b>Working or attending school</b>	<b>50</b>	<b>38.5</b>
<b>Resident in treatment facility or prison</b>	<b>17</b>	<b>13.1</b>
<b>In methadone maintenance treatment</b>	<b>18</b>	<b>13.8</b>
<b>Deceased</b>	<b>9</b>	<b>6.9</b>
<b>Unknown, lost to follow up</b>	<b>24</b>	<b>18.5</b>

# Triple Ex

- ex-addict
- ex-unemployed
- ex-prisoner

# Triple-Ex Client Characteristics

main drug	average duration use
heroin (69%)	11 years
cocaine (19%)	8 years

28% > 10 years methadone

31% 1 parent born in non-western country

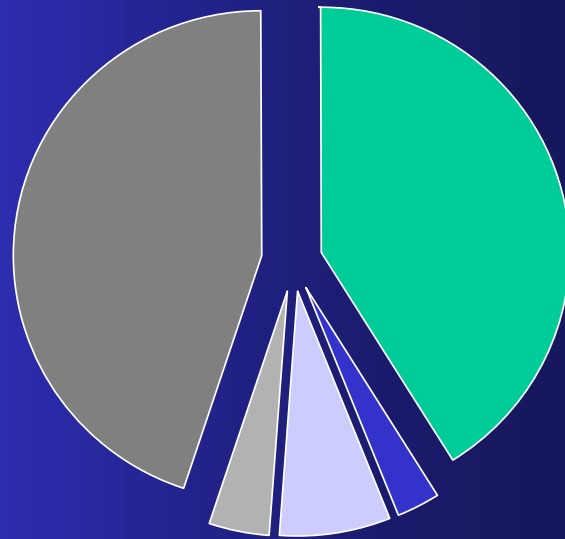
92% man

average age: 33 years

# Relapse after Triple-Ex

(FU of 116 ex-clients (76%) after average 2 years)

period of drug use  
after Triple-Ex



■ No relapse:	41%
■ < 1 month:	3%
■ 1-3 months:	7%
■ 3-6 months:	4%
■ > 6 months:	45%

91% received after care



# Social integration after Triple-Ex

(FU of 116 ex-clients (76%) after average 2 years)

## Dominant social situation

- study	7%
- job (part/full-time)	47%
- unemployed	31%
- disability allowance	4%
- residential treatment or prison	11%

# Social integration after Triple-Ex

(FU of 116 ex-clients (76%) after average 2 years)

## Crime after discharge

### Arrests after discharge

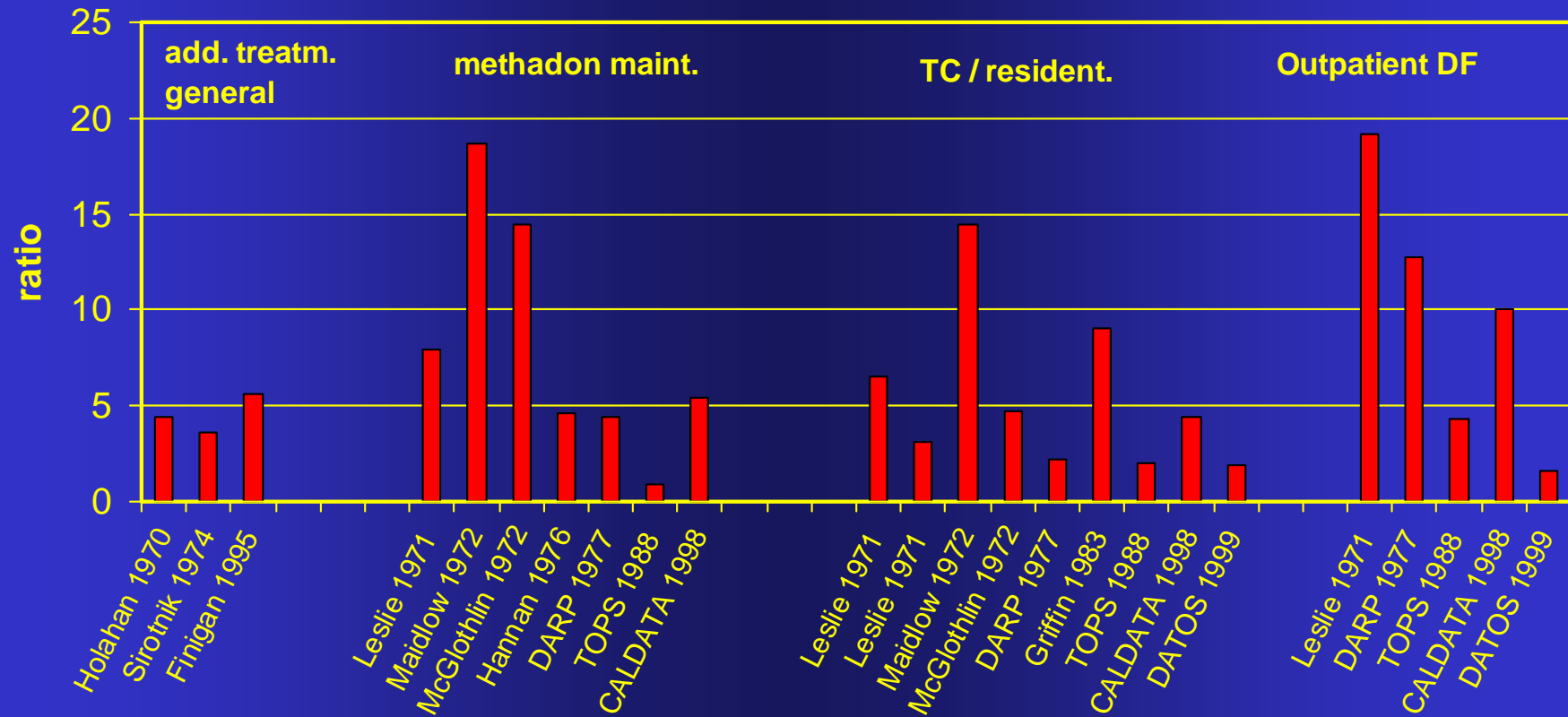
(before admission)

dealing drugs	8%	(55%)
stealing	36%	(92%)
violence	14%	(49%)

### Month before interview

illegal activities	17%
detention, prison	19%

# Benefit-cost ratio (drugs)



## Cost-Benefit Ratio Emiliehoeve TC

		EH	
	N=	costs	benefits
a year		1,500,000	
after care		300,000	
in-/out	60		
in treatment	30		1,200,000
success yr 1	20		800,000
success yr 2	18		720,000
success yr 3	16		640,000
success yr 4	12		480,000
long success	12		1,440,000
<b>total</b>		<b>1,800,000</b>	<b>5,280,000</b>
<b>C-B ratio</b>	<b>2.9</b>		
total	before	50,000	
	after	10,000	(success)
		long = 7 yr	

## Cost-Benefit Ratio Triple-Ex

		TX	
	N=	costs	benefits
a year		1,500,000	
after care		300,000	
in-/out	60		
in treatment	30		1,200,000
success yr 1	25		1,000,000
success yr 2	20		800,000
success yr 3	15		600,000
success yr 4	10		400,000
long success	10		1,200,000
<b>total</b>		<b>1,800,000</b>	<b>5,200,000</b>
<b>C-B ratio</b>	<b>2.9</b>		
total	before	50,000	
	after	10.000 pp	(success)
		long = 7 yr	

## Daily Costs / Benefits (in Euro's)

	no treatment	heroin distribution	methadone distribution	methadone maintenance	therapeutic communities
social	25	25	25	25	5
medical treatment	0	60	5	20	70
crime related	75	30	75	30	0
total costs	100	115	105	75	75
benefits	0	-15	-5	25	25

## Daily Costs / Benefits (in Euro's) after three years

	no treatment	heroin distribution	methadone distribution	methadone maintenance	therapeutic communities
success	10%	0%	5%	25%	50%
total costs	90	115	100	56	50
benefits	10	-15	0	44	50

Success = no illegal drug use - no crime - no treatment for addiction

## Qualities of methadone programs

- Methadone maintenance makes clients no longer dependent on black market
- Structured methadone programs can improve re-socialization
- Methadone can be a first step towards further treatment
- Structured methadone programs are cost-effective



## Limitations of methadone programs

- Methadone can only be used for heroin addicts
- Availability of methadone postpones the decision to stop using and entering a drug free program
- Harm reduction programs without further rehabilitation are expensive

## Qualities of drug free T.C.'s

- T.C.'s can treat clients addicted to any drugs
- 30% of all admissions have a successful long term outcome
- Longer time spent in the program improves outcome success
- Parent participation improves successful outcome
- Treatment in a T.C. can be an alternative for prison
- Treatment in a T.C. is cost-effective

## Limitations of drug free T.C.'s

- Highly structured programs are not popular with the addicts and helpers
- High drop-out rate in first months
- Not all addicts can sustain the pressure of a T.C.

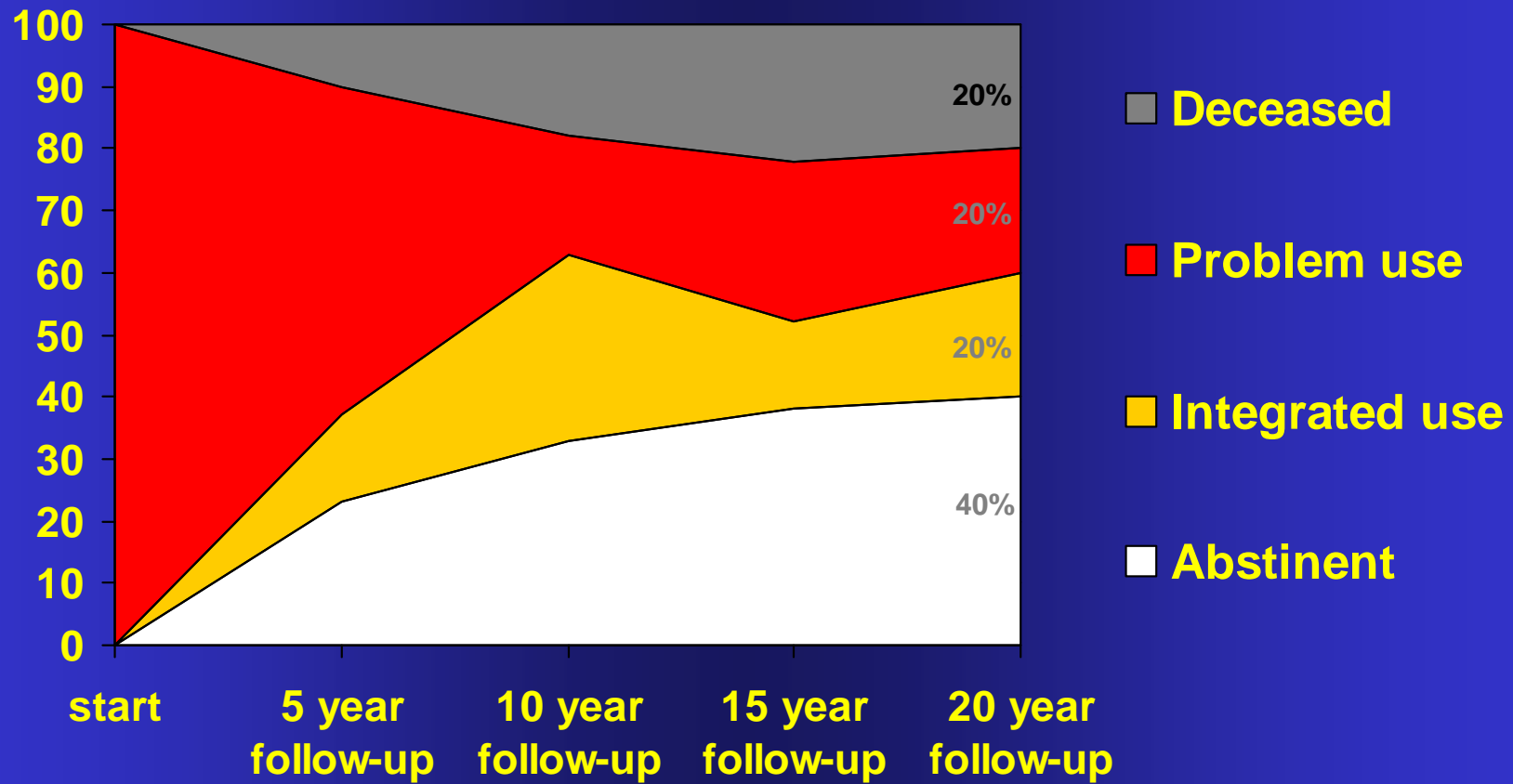
Harm reduction is not treatment.

Treatment is harm reduction.

Treatment in any form will never solve  
the total drug problem



# Long term drug use ( excl. unknown )



Cramer & Schippers, 1994