

Circumstances around First Drug Injection and Prevalence of HIV, Hepatitis B (HBV) and Hepatitis C (HCV) Among Participants of a Needle Exchange Program (NEP)

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Objective

The objective of this study was to study if needle-sharing behaviour at the first injection related to self-perceived and objective signs of exposure to HCV, HBV and HIV.

Background

The NEP in Malmö, Sweden, was opened in 1987 and approximately 4700 people who inject drugs (PWID) have registered so far, approximately 75% male. The prevalence of HCV at NEP enrolment has remained high (60%), despite a low prevalence of HIV (<1%) and a decreasing prevalence of HBV exposure.

Methods

Interviews with 50 consecutive NEP visitors (28% women) about the setting of their first drug injection took place in 2014. Data was then compared to the participants' serological as well as self-perceived HIV, HBV and HCV status at NEP enrolment.

Results:

At NEP registration, 34/50 (68%) persons were anti-HCV positive and 36% had been exposed to HBV. One person was HIV positive. The median age among those HCV-positive (35 years) was significantly higher than for those anti-HCV negative (median 26 yrs, $p < 0.05$, CI 1.61-11.77). Drug sort and age at first injection was similar for both groups; approx. 80% had injected amphetamine at the median age of 20 years.

Five (10%) persons (all male) had been alone when taking their first drug injection. 35% of those anti-HCV positive had shared drug paraphernalia at first injection, compared to 25% of those anti-HCV negative. 68% of the anti-HCV positive were aware of their HCV-status. When asked who injected first, 6 persons (5 women) answered "the healthiest person", while 12 persons (11 men) said it was "the one who owned the injection equipment".

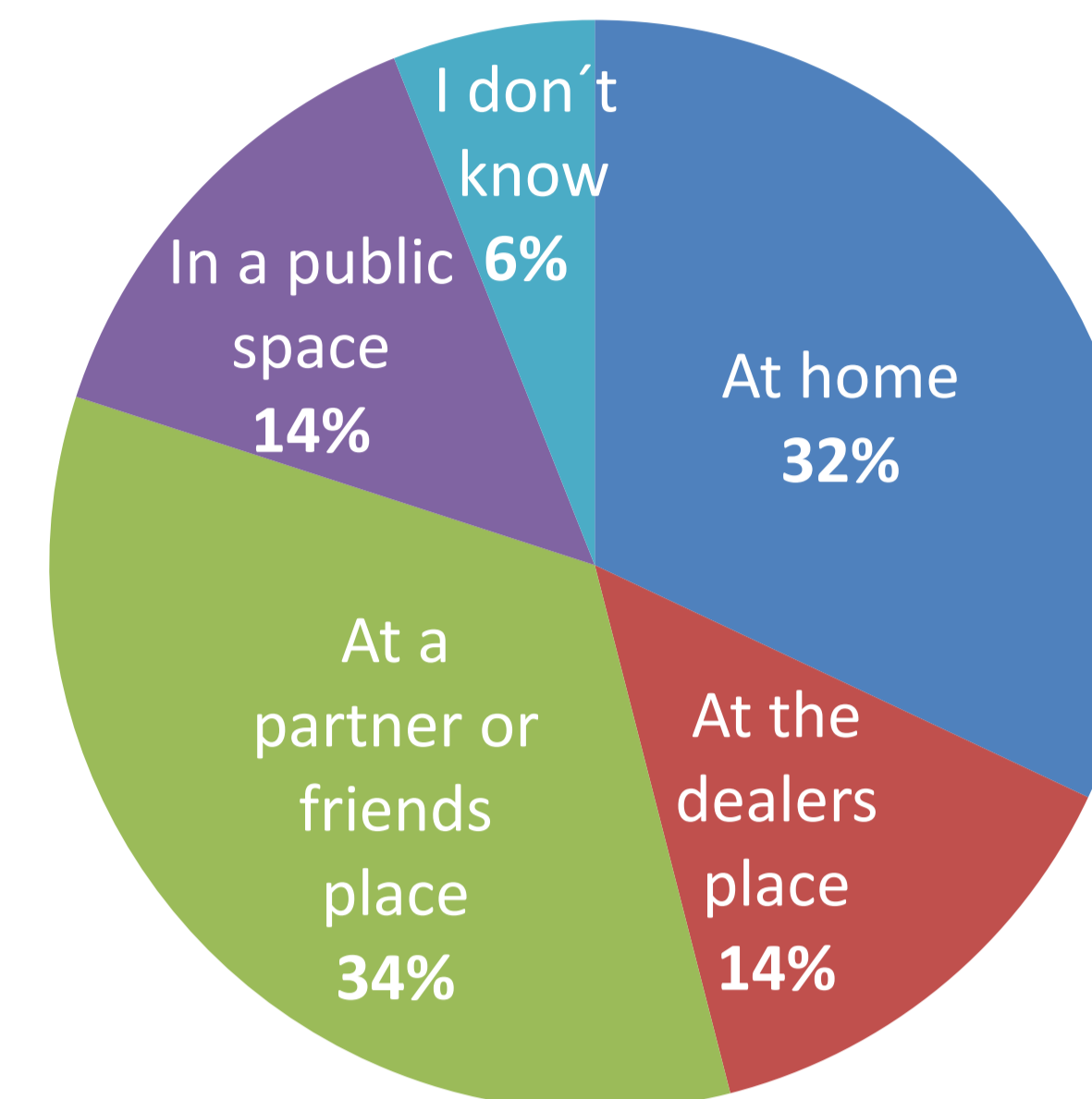
Table 1. Characteristics of study participants, dichotomized for anti-HCV status at NEP enrolment.

Total n=50	Anti-HCV neg n=16	Anti-HCV pos n=34	p-value
Male	11(69%)	25(74%)	0.746
Median age (range)	26.0 (17-47)	34.5 (19-53)	<0.05, CI 1.61-11.77
HBsAg/anti-HBc+	3(19%)	15(44%)	0.117
HIV+	0	1	
First drug injected:			
Amphetamine	13(81%)	26(76%)	
Heroin	3(19%)	6(18%)	
Other	0	2(6%)	
Current main injection drug:			
Amphetamine	9(56%)	26(76%)	0.191
Heroin	7(44%)	8(24%)	
Other	0	0	
Shared drug paraphernalia at first injection			
Yes	4(25%)	12(35%)	0.533
No	12(75%)	20(59%)	0.351
Did not know	0	2(6%)	
Self-perceived HCV status			
Anti-HCV - correct	6(38%)	NA	
Anti-HCV - incorrect	NA	8(24%)	
Anti-HCV + correct	NA	23(68%)	
Anti-HCV + incorrect	3(19%)	NA	
Did not know	6(38%)	3(8%)	
No answer	1(5%)		
Correct perception over-all	6(38%)	23(68%)	0.066

Conclusion

Sharing of drug injection paraphernalia was reported from 16/50 (32%) already at first injection. There was a difference between men and women in perception of the injection order, combined with an unawareness of current HCV status. Our findings indicate the specific need of access to information and diagnostic testing for persons at risk of starting injecting drugs and new injectors.

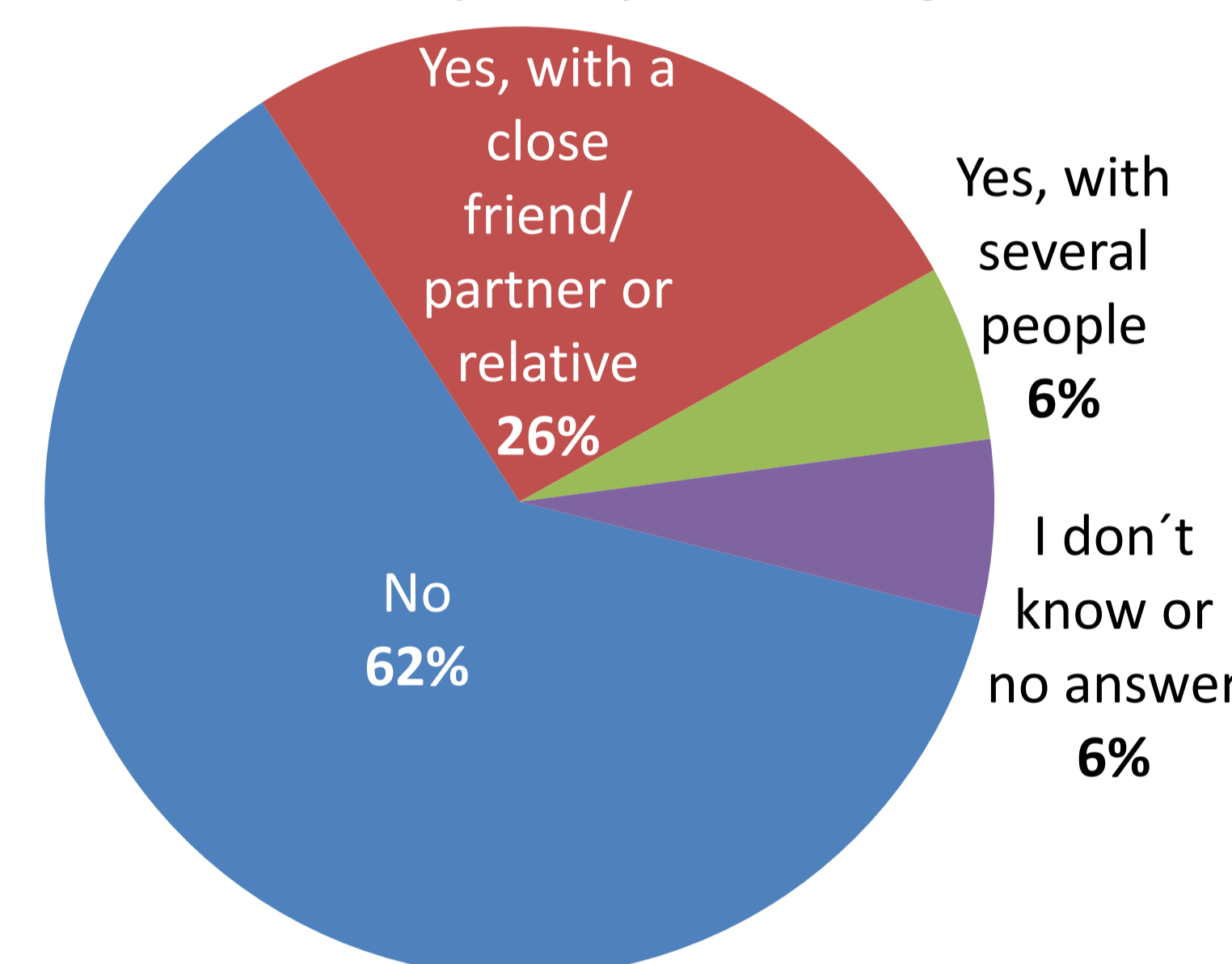
Where were you the first time you injected drugs?



	Women	Men
At a partner's or friend's place	3(21%)	15(39%)
At home	6(43%)	10(28%)
At the dealer's place	3(21%)	4(11%)

(The differences in responses between genders were not statistically significant)

Did you share syringe/ needle or injection paraphernalia the first time you injected drugs?



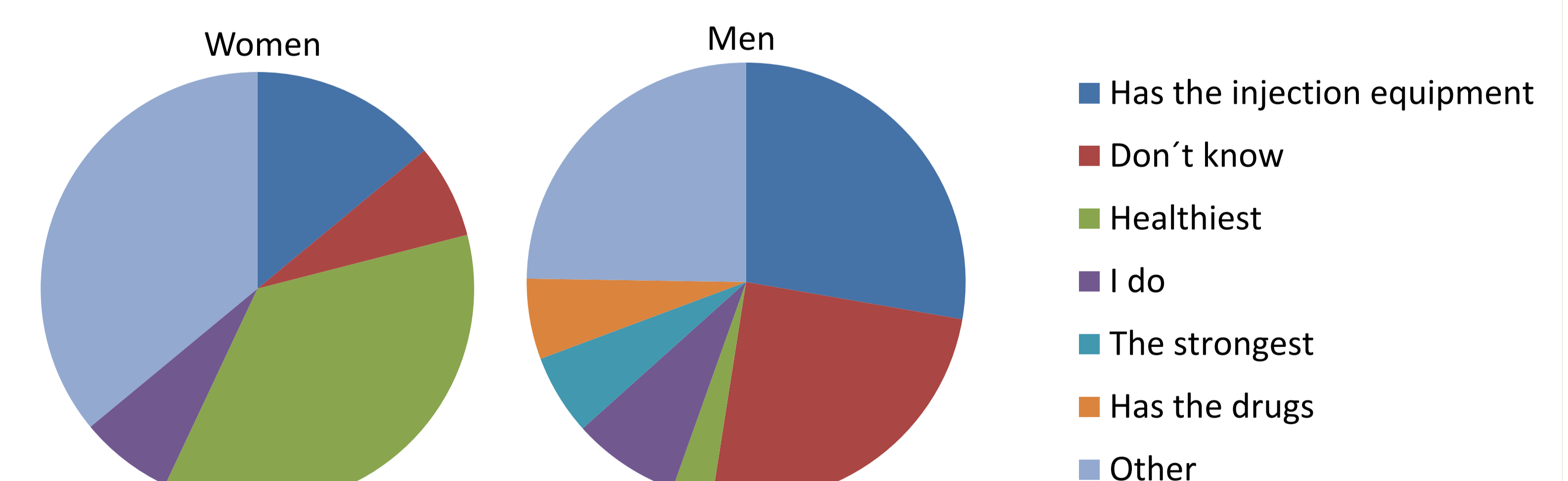
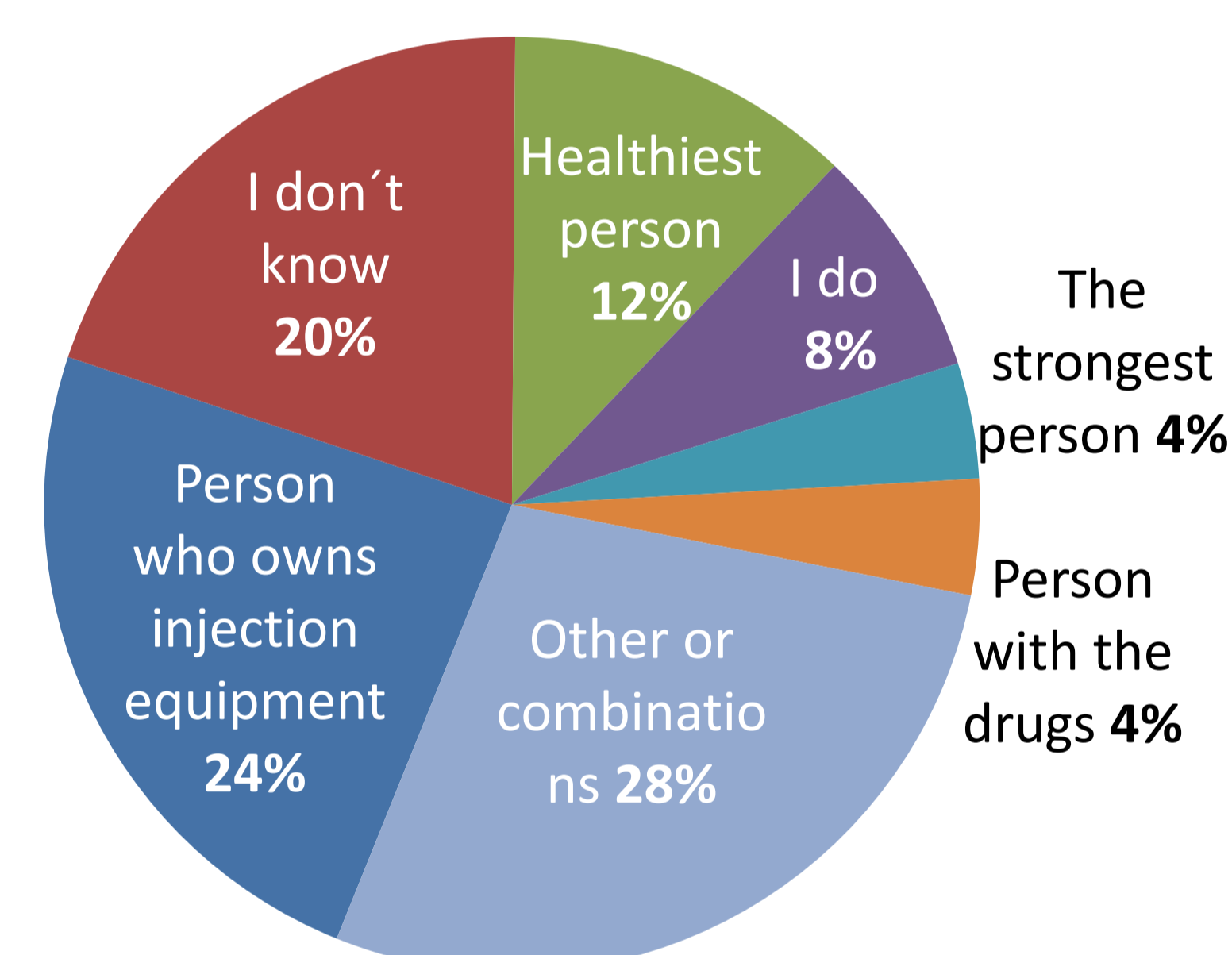
Those who replied having shared with several people, explained:

• "With everyone there, at that time there was no HIV, and only jaundice, we didn't know".

• "With 4 people, but that was in the eighties, before there was HIV and hepatitis".

The differences in responses between genders were not statistically significant.

Who injects first if you share injection paraphernalia?



	Women	Men
The one who owns the injection equipment injects first	2(14%)	10(28%)
I don't know	1(7%)	9(25%)
The healthiest person injects first	5(36%)	1(3%)
I do (I inject first)	1(7%)	3(8%)
The strongest person injects first	0%	2(6%)
The person who has the drugs injects first	0%	2(6%)
Other or combinations of above	5(36%)	9(25%)

Malmö Needle Exchange Programme (NEP)

Malmö NEP was initiated by the Department of Infectious Diseases in 1987 to prevent HIV transmission among people who inject drugs (PWID). The NEP provides clean needles, syringes and paraphernalia, as well as risk reduction counselling, basic medical care and psychosocial support with the aim to prevent blood borne infections and to motivate to drug independency. PWID with age ≥ 20 years and signs of venepuncture can enroll in the NEP and are registered with name and social security number. The NEP is staffed by two nurses, an assistant nurse, a physician, a counsellor and a midwife. A baseline interview with questions on demographic facts and drug habits completed with testing for HIV, hepatitis B (HBV) and hepatitis C (HCV) is conducted at registration and vaccinations for hepatitis A and B are provided. Participants are offered barrier contraceptives, pregnancy screening and treatment for sexually transmitted infections. Referral to detoxification or methadone/buprenorphine maintenance clinics is also offered. Participants are regularly tested for HIV, HBV and HCV infection throughout their participation in the programme. All services are free of charge.

