

High burden of blood-borne and sexually transmitted infections among people experiencing homelessness - First results from a pilot study in Berlin, Germany

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Abstract 353

Background:

People experiencing homelessness (PEH) are at increased risk of infection with blood-borne viral infections (BBV) and sexually transmitted infections (STI), due to precarious living conditions and associated risk factors (e.g. drug/alcohol use, sexual risk behavior, incarceration). In Germany, there are app. 417.000 PEH, however, there is little data available on the burden of these infections among this group. We conducted a pilot study in Berlin in order to assess prevalence of BBV and STI in this population.

Methods:

We conducted a multicentre cross-sectional study in 5 low-threshold medical services for PEH in Berlin between April and June 2021. Adults who self-reported being currently homeless and gave informed consent were included. Data on homelessness was classified according to the European Typology of Homelessness and Housing Exclusion (ETHOS) and categorised into the main criteria: rooflessness, homelessness, insecure housing and inadequate housing.

Data on socio-demographics, risk and prevention behaviour, and health and test history were collected through questionnaire-based interviews. Venous blood samples were tested for HIV, hepatitis B (HBV) and hepatitis C (HCV) and in case of seropositivity, corresponding RNA determinations were carried out. In addition, syphilis serology was performed and urine samples were tested for *Neisseria gonorrhoeae* and *Chlamydia trachomatis* using nucleic acid amplification tests (NAAT).

Translators were available for all steps of the study, including counselling on BBV and STI and returning the test results to the participants. All participants received an allowance of 10 euros and could be referred to medical care centres for further diagnostics if needed. An ethical vote was obtained from the Berlin Medical Association.

Results:

216 participants were included in the analysis. 123 (56.9 %) had no health insurance.

Characteristics of the participants

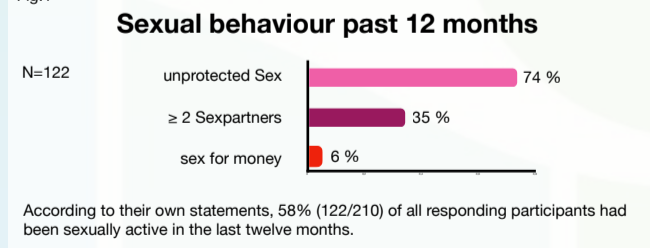
N=215	Age	mean	(range)
		41.0	(19-68)
N=215	Age range	n	(%)
	18-29 yrs	25	(11.6)
	30-39 yrs	67	(31.2)
	40-49 yrs	70	(32.6)
	50-59 yrs	37	(17.2)
	≥60 yrs	16	(7.4)
N=216	Gender		
	male	191	(88.4)
	female	24	(11.1)
	gender divers	1	(0.5)
N=213	State/region of Origin		
	Germany	57	(26.8)
	Eastern Europe, EU	116	(54.5)
	Eastern Europe, non-EU	24	(11.3)
	Western Europa, EU	5	(2.3)
	Middle East/Africa	11	(5.2)
N=212	Duration of homelessness	n	%
	<1 year	63	(29,7)
	1-3 years	66	(31,1)
	4-5 years	25	(11,8)
	6-10 years	33	(15,6)
	> 10 years	25	(11,8)
N=216	Type of homelessness	n	%
	roofless	109	(50,5)
	houseless	63	(29,2)
	insecure	18	(8,3)
	inadequate	21	(9,7)
	other	5	(2,3)

Consumption, imprisonment and sexual behaviour

Of all responding participants:

- ▶ 71.6 % (154/215) reported having used drugs at least once in their lives.
- ▶ 47% (102/216) reported intravenous drug use (IVD) in the past 30 days.
- ▶ 71% (153/214) of all respondents reported having been in prison at least once.
- ▶ 48% (101/210) reported that at least one of their tattoos had been made in a non-professional setting.
- ▶ 58%(122/210) reported being sexually active in the past twelve months.

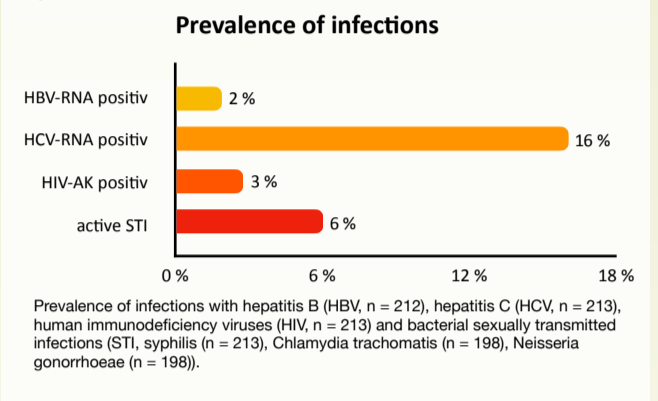
Fig.1



Bloodborne and sexually transmitted Infections:

HCV-RNA was found in 34 (16.0%), 4 (1.9%) were HBsAg positive. HIV was detected in 6 (2.8%). Active syphilis was found in 3 (1.4%), while gonococcal infections were seen in 4 (2,0%) and chlamydial infections in 6 (3,0%). (Fig. 2)

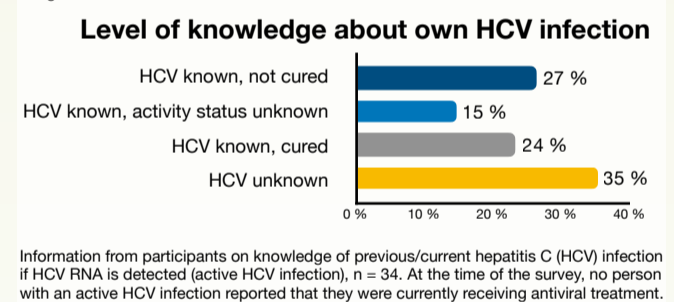
Fig.2



Infections knowledge level of the participants

Two of the four participants with active HBV stated that they knew about their HBV status. Both were not receiving treatment at the time of the survey. Of the six HIV-infected participants, all reported knowing their infection status. Three of them were not yet on antiretroviral therapy, one of them with an existing opportunistic infection.

Fig.3



Conclusion:

PEH in Berlin have a high prevalence of BBV and STI.

- ▶ There is a need to improve awareness and access to treatment and care for this population group
- ▶ Networking between addiction, homelessness and infectious diseases services need to be strengthened.
- ▶ HCV prevention and elimination efforts must be supported and strengthened for this population group
- ▶ Furthermore, we propose to extend the study to other cities in Germany to verify the results.

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