

Do drug users know their infection status?

Concordance between self-reported and measured HIV & HCV infection status among PWID in Germany

Nielsen S¹, Gassowski M¹, Wenz B¹, Bannert N², Bock CT³, Kücherer C², Ross RS⁴, Hamouda O¹, Bremer V¹, Marcus U¹ and Zimmermann R¹

Background

People who inject drugs (PWID) are disproportionately affected by both HIV and hepatitis C (HCV) infection. Awareness of infection status is essential to ensure linkage to appropriate healthcare for those infected as well as for uninfected individuals who need access to targeted testing and counselling services. Awareness of infection status may also lead to reduced transmission.

Aim: To compare self-reported HIV and HCV status with serological and molecular markers of infection among PWID.

Methods

Biological and behavioural data were collected from 2,077 PWID recruited through respondent-driven sampling in eight large German cities between 2011-2014 [1]. Dried blood spots from capillary blood samples were tested for HCV antibodies (AB), HCV RNA and HIV-1/-2 AB. HIV reactive samples were confirmed by Western blot [2].



Photos from the collection of dried blood spots and the face-to-face interviews

Results

Characteristics of participants: (range in the 8 study cities)

- Median age: 29-41 years
- 19-35% women
- 76-88% injecting in the last 30 days
- 77-95% saw a doctor in the last year
- 37-74% were currently in opioid substitution therapy (OST)

Chart 1: Laboratory test results, n=2077

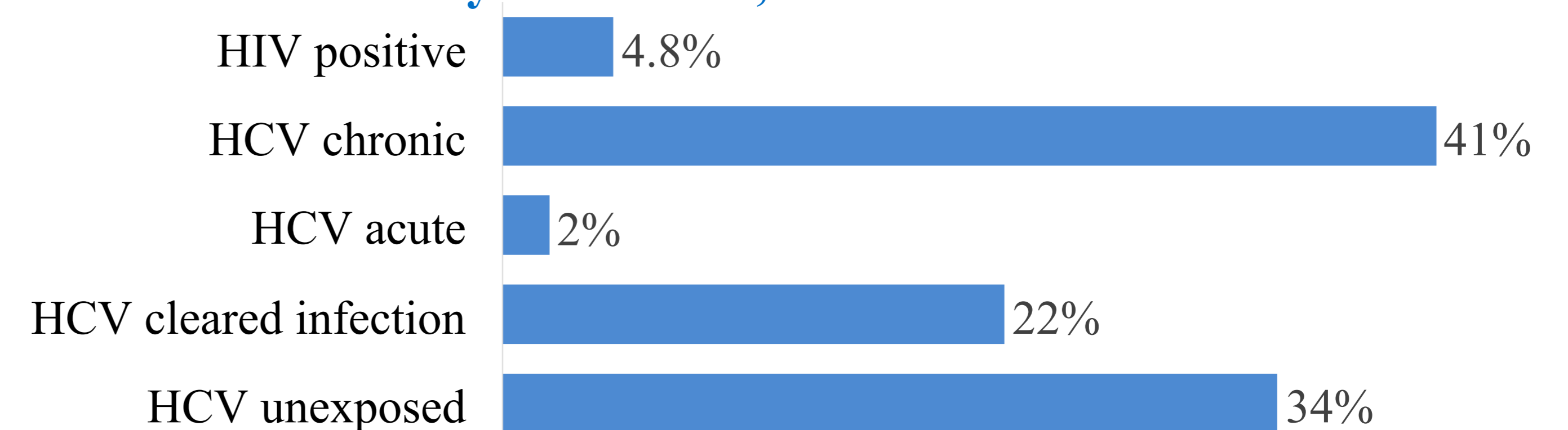


Table 1: Comparison of self-reported and measured HIV and HCV status

Self-reported status	HIV laboratory test results N = 2076*		HCV laboratory test results N = 2030**		
	HIV negative (AB-)	HIV positive (AB+)	Unexposed (AB-, RNA-)	Chronic infection (AB+, RNA+)	Cleared infection (AB+, RNA-)
Concordant	1784 (90%)	81 (81%)	339 (47%)	622 (73%)	174 (38%)
Discordant	6 (0,3%)	16 (16%)	194 (27%)	163 (19%)	254 (56%)
Never tested	133 (7%)	1 (1%)	113 (16%)	37 (4%)	15 (3%)
Unclear #	52 (3%)	0 (0%)	69 (10%)	35 (4%)	14 (3%)
Answer declined	1 (0,1%)	2 (2%)	1 (0,1%)	0 (0%)	0 (0%)
Total	1976 (100%)	100 (100%)	716 (100%)	857 (100%)	457 (100%)

* excluding one case with indeterminate HIV status

Unclear: Not sure if tested or did not get last test result

**excluding 47 cases with acute infection

Conclusion

- In our study, 17% of HIV positive PWID and 27% of those with chronic HCV infection were unaware of their infections ⇒ indicating that the majority was aware of their infections.
- However, more than ¼ with infectious HCV and nearly one-fifth of HIV infected PWID did not know their status, although often attached to OST or other harm reduction services.
- Access to appropriate testing, counselling and treatment targeted to the needs of PWID should be further improved, particularly for HCV.
- In the era of highly effective antiviral HCV-treatment options, the opportunity to clear infections exists, if infected persons become aware of their infection and are linked to appropriate care settings.

Contact information and disclosure statement:

For more information: Email: stine.nielsen12@gmail.com. Twitter: [@StineNielsenEPI](https://twitter.com/StineNielsenEPI). Web: www.rki.de/druck-studie

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References: 1. Zimmermann R, et al: A multicentre sero-behavioural survey for hepatitis B and C, HIV and HTLV among people who inject drugs in Germany using respondent driven sampling. *BMC Public Health* 2014, 14:845. Available [here](https://doi.org/10.1186/s12874-014-0145-2)

2. Ross RS, et al: Detection of infections with hepatitis B virus, hepatitis C virus, and human immunodeficiency virus by analyses of dried blood spots-performance characteristics of the ARCHITECT system and two commercial assays for nucleic acid amplification. *Virology* 2013, 453:72-81.

Author affiliations: ¹ Department for Infectious Disease Epidemiology, Division for HIV/AIDS, STI and Blood-borne Infections, Robert Koch Institute, Berlin, Germany. ² Department for Infectious Diseases, Division for HIV and other Retroviruses, Robert Koch Institute. ³ Department for Infectious Diseases, Division for Viral Gastroenteritis and Hepatitis Pathogens and Enteroviruses, Robert Koch Institute. ⁴ Institute of Virology, National Reference Centre for Hepatitis C, University Hospital Essen, University of Duisburg-Essen, Essen, Germany.