

Awareness of HIV and HCV status among people who inject drugs

Results from a sero-behavioural survey of current injectors in Germany (DRUCK-Study)

HCV seminar – European Initiative Hepatitis C and Drug Use
Paris, 3rd November 2016



Disclosures

- Stine Nielsen was working for the Robert Koch Institute when this study was carried out (2011-2015) and is currently working on her PhD (Promotion) based on the data collected. But Stine Nielsen is not currently employed by the Robert Koch Institute.

This presentation was done in collaboration with Dr. Ruth Zimmermann from the Robert Koch Institute who was the principal investigator on this survey.

The results presented here has recently been published in this paper:
Nielsen et al. *Concordance between self-reported and measured HIV and hepatitis C virus infection status among people who inject drugs in Germany*. BMC Hepatology, Medicine and Policy (2016). DOI 10.1186/s41124-016-0016-6
<https://hmap.biomedcentral.com/articles/10.1186/s41124-016-0016-6>



Objective of this talk

- Do people who inject drugs know if they are infected with HIV and/or hepatitis c?

- Why is this important?
 - Both infections often asymptomatic for years
 - Not knowing your status limits access to services; counselling, testing, treatment and care
 - Prevent ongoing transmission



DRUCK-Study

Drogen und chronische Infektionskrankheiten

Design

- Multicentre cross-sectional sero-behavioural survey 2011-15
- 8 large cities in Germany using low-threshold facilities as study sites
- People who injected drugs during the last 12 months, aged 16+ years
- Respondent driven sampling

Data

- Behavioural data (sociodemographics, prevention and risk behaviours, testing history, knowledge of infection status, antiretroviral treatment and HCV treatment (IFN)
 - by questionnaire-assisted interviews
- **HIV, HBV, HCV** (serology & PCR)
 - testing from capillary Dried Blood Spots





Characteristics of participants

Range in the 8 study cities

- N=2,077
- Median age: 29-41 years
- 19-35% women
- 76-88% injected in the last 30 days
- 53-77% ever living on the streets
- 73-86% ever imprisoned
- 77-95% saw a doctor in the last year
- 31-66% were currently in opioid substitution therapy (OST)



Measuring awareness of infections status



Defining self-reported and measured status: HIV

HIV – “simple”

- **Self-reported status:**
 - Have you ever been tested for HIV? (yes/no/don't know)
 - If yes, what was the result of your last test? (positive/negative/don't know)
 - 4 categories: HIV positive; HIV negative; Never tested; Unclear

- **Lab status:**
 - HIV AB positive (confirmed by Western Blot) or
 - HIV AB negative



Knowledge of HIV status

Comparing self-reported and measured HIV status

Self-reported status	HIV laboratory test results (N = 2076)	
	Negative (AB-)	Positive (AB+)
Concordant		
Discordant		
Never tested		
Unclear [#]		
Total	1976 (95%)	100 (5%)

[#] Unclear: Not sure if tested, did not get last test result or did not want to answer



Knowledge of HIV status

Comparing self-reported and measured HIV status

Self-reported status	HIV laboratory test results (N = 2076)	
	Negative (AB-)	Positive (AB+)
Concordant	1784 (90%)	81 (81%)
Discordant	6 (0.3%)	16 (16%)
Never tested	133 (7%)	1 (1%)
Unclear [#]	53 (3%)	2 (2%)
Total	1976 (100%)	100 (100%)

[#] Unclear: Not sure if tested, did not get last test result or did not want to answer



Defining self-reported and measured status: HCV

HCV – “more complex”

- **Self-reported status** (5 categories):
 - Ever tested for anti-HCV? No = “Never tested”
 - If yes, ever testing positive for anti-HCV? No = “Uninfected”
 - If yes, ever cleared infection (spontaneously or with treatment)?
No = “Infected”
Yes = “cleared infection”
 - “Unclear” – unsure if tested or of test results

- **Lab status:**
 - Chronic HCV infection (AB+, RNA+)
 - Cleared infection (AB+, RNA-)
 - Uninfected (AB-, RNA-)
 - *Acute infection (AB-, RNA+) – N=47, excluded from this analysis*



Knowledge of HCV status

Comparing self-reported and measured HCV status

Self-reported status	HCV laboratory test results (N = 2030)		
	Unexposed (AB-, RNA-)	Chronic infection (AB+, RNA+)	Cleared infection (AB+, RNA-)
Concordant			
Discordant			
Never tested			
Unclear [#]			
Total	716 (34%)	857 (41%)	457 (22%)

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



Knowledge of HCV status

Comparing self-reported and measured HCV status

Self-reported status	HCV laboratory test results (N = 2030)		
	Unexposed (AB-, RNA-)	Chronic infection (AB+, RNA+)	Cleared infection (AB+, RNA-)
Concordant	339 (47%)	622 (73%)	174 (38%)
Discordant			
Never tested			
Unclear [#]			
Total	716 (100%)	857 (100%)	457 (100%)

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



Knowledge of HCV status

Comparing self-reported and measured HCV status

Self-reported status	HCV laboratory test results (N = 2030)		
	Unexposed (AB-, RNA-)	Chronic infection (AB+, RNA+)	Cleared infection (AB+, RNA-)
Concordant	339 (47%)	622 (73%)	174 (38%)
Discordant	194 (27%)	163 (19%)	254 (56%)
Never tested			
Unclear [#]			
Total	716 (100%)	857 (100%)	457 (100%)

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



Knowledge of HCV status

Comparing self-reported and measured HCV status

Self-reported status	HCV laboratory test results (N = 2030)		
	Unexposed (AB-, RNA-)	Chronic infection (AB+, RNA+)	Cleared infection (AB+, RNA-)
Concordant	339 (47%)	622 (73%)	174 (38%)
Discordant	194 (27%)	163 (19%)	254 (56%)
Never tested	113 (16%)	37 (4%)	15 (3%)
Unclear [#]	69 (10%)	35 (4%)	14 (3%)
Total	716 (100%)	857 (100%)	457 (100%)

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

- ➔ 73% with chronic HCV aware of their infection
(Wiessing et al 2014: 24-76% PWID with HCV diagnosed)
- ➔ Few of those unexposed or with cleared infection correctly reported their HCV status



What have other studies found?

- We found: 73% with chronic HCV aware of their infection
- Wiessing et al 2014 (systematic review, 11 studies from 5 EU countries): **24-76% PWID anti-HCV PWID aware of their HCV infection**
- French study (ANRS-Coquelicot survey 2011): **78% anti-HCV PWID aware of their HCV infection**
- UAM in UK, 2010-2014: **Only 47-55% anti-HCV PWID aware of their HCV infection**
- Spain (Catalonia), Folch et al 2016: **Highest awareness among native long-term injectors (85%), lowest (43%) among migrant new injectors**
- General population in Europe (Hahne et al 2013): **Only 20-60% of those with chronic infection are estimated to be aware of infection**
- *Several studies only tested for HCV AB (not RNA)*



Conclusions

- Relatively high proportions of tested and diagnosed individuals
- But often lack of exact knowledge about HCV status
- Awareness of infections status will vary across different sub-groups of injectors (i.e. results from Folch et al 2016)
- Importance of knowing both HCV AB and HCV RNA results – incl. measuring re-infections especially in times of treatment scale-up
- Importance of post-test counselling to increase awareness, ensure linkage to care and impact risk behaviour



References

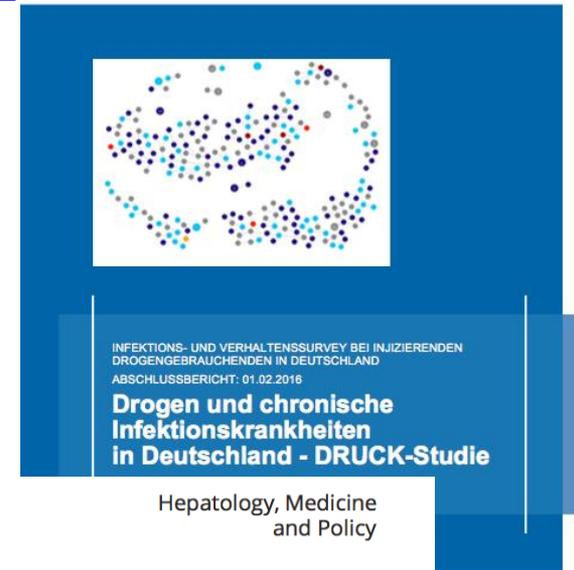
→ want to know more about the German DRUCK-study?

- All materials are available from the RKI website:
www.rki.de/DE/Content/InfAZ/H/HIVAIDS/Studien/DRUCK-Studie/DruckStudie.html
 - Questionnaire
 - Study protocol (Zimmermann et al 2014 BMC PH)
 - Report to German Ministry of Health (275 pages)
 - Link to papers (all open access)



Wenz et al. *BMC Public Health* (2016) 16:927
 DOI 10.1186/s12889-016-3545-4

BMC Public Health



RESEARCH ARTICLE

High variability of HIV and HCV seroprevalence and risk behaviours among people who inject drugs: results from a cross-sectional study using respondent-driven sampling in eight German cities (2011–14)

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Nielsen et al. *Hepatology, Medicine and Policy* (2016) 1:8
 DOI 10.1186/s41124-016-0016-6

Hepatology, Medicine and Policy

RESEARCH

Open Access



Concordance between self-reported and measured HIV and hepatitis C virus infection status among people who inject drugs in Germany

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Abstract

Background: People who inject drugs (PWID) are disproportionately affected by both HIV and hepatitis C infection (HCV). Awareness of infection status is essential to ensure linkage to appropriate healthcare for those infected, who need treatment and regular follow-up, as well as for uninfected individuals, who need access to targeted testing and counselling services. In this paper we compare self-reported HIV and HCV status with serological markers of



Thank you!



Matthias An der Heiden, Norbert Bannert, Rieke Barbek, Claus-Thomas Bock, Johannes Bombeck, Birkenstube Berlin, Wei Cai, Deutsche AIDS-Hilfe, Serdar Danis, Kerstin Dettmer, Fixpunkt e.V., Maria Friedrich, Martyna Gassowski, Gesundheitsamt Essen, Osamah Hamouda, Joana Haußig, Claudia Kücherer, Astrid Leicht, Uli Marcus, Bärbel Marrziniak, Sami Marzougui, Doreen Nitschke, NRZ Hepatitis C, Doris Radun, Stefan Ross, Claudia Santos-Hövenner, Dirk Schäffer, Suchthilfe Essen, Judith Stumm, Andrea Teti, Benjamin Wenz, Weidong Zhang, Ruth Zimmermann

cooperating partners in drug services

all study participants

German MOH (financing partner)

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Extra slides

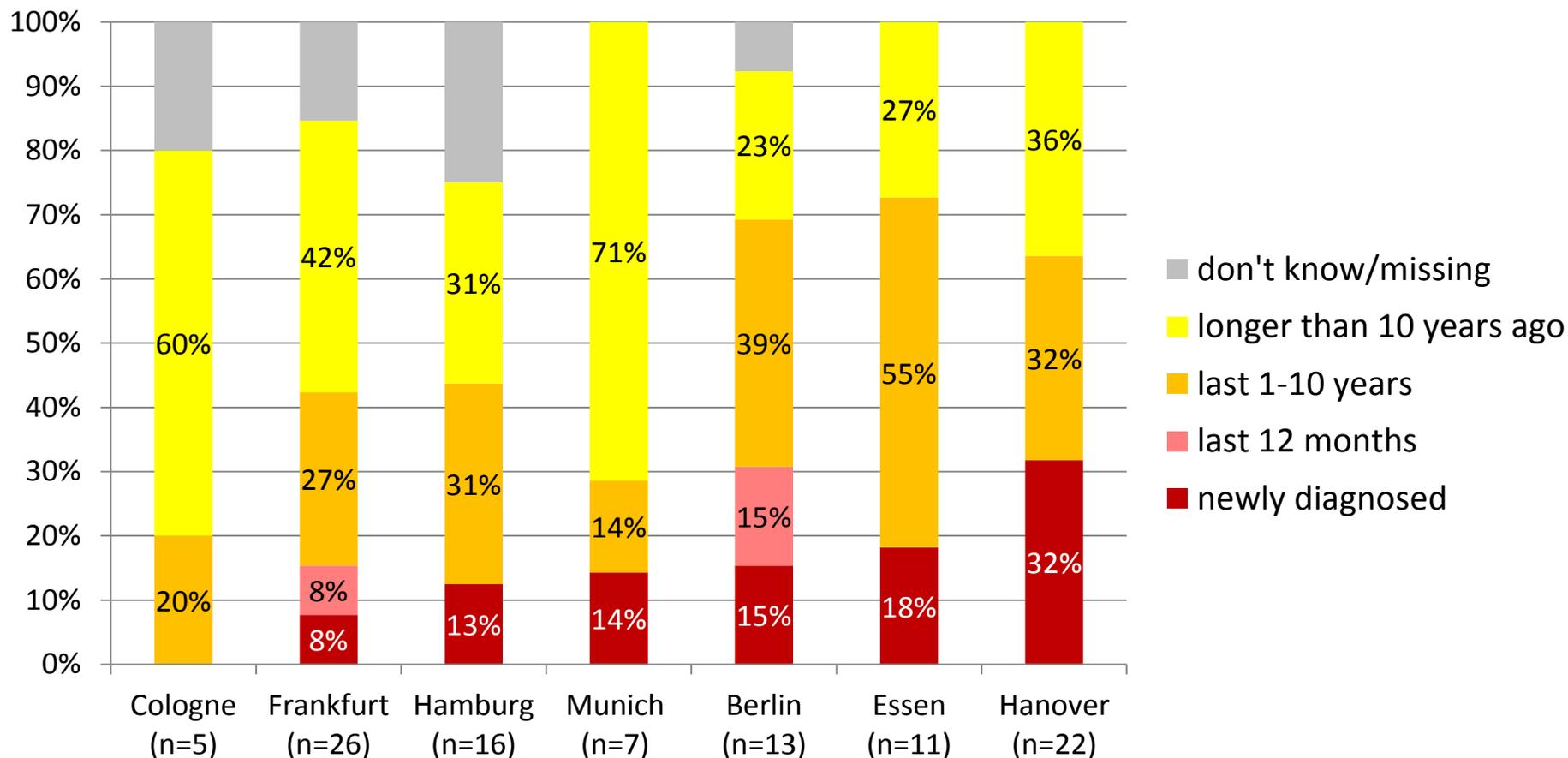


Limitations

- Proportion of HCV-diagnosed might be overestimated, confusion about tests, and about hep B & C
- Overall data, mask differences between different sub-groups of PWID
- Data collected in large cities – not representative for more rural areas in Germany
- Possible selection bias (informed consent, blood samples, stigmatised group and sensitive questions)
- Study was conducted before the approval of highly effective oral direct antivirals for HCV



Recency of HIV diagnosis in 7 study cities (n=100 HIV-infected PWID)





Recommendations

Increase **HIV** testing, diagnosis, access and retention in treatment for PWID

Improve **exact knowledge of HCV status** among PWID

Increase **HCV access and uptake of treatment** (all-oral, IFN-free treatments are available)

Provide **treatment cascades for vulnerable groups** separately