

Hepatitis C- and HIV Treatment Cascades among People Who Inject Drugs

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

5th International Symposium on Hepatitis Care in Substance Users
Oslo, 7th September 2016



WHO targets for HIV and hepatitis C

HIV

Goal of ending the AIDS epidemic as a public health threat by 2030

UNAIDS / WHO 90-90-90 goals propose that by 2020

- 90% of all people living with HIV should know their HIV status,
- 90% of those diagnosed should receive ART,
- 90% of those should have durable viral suppression

Hepatitis C

Goal of eliminating viral hepatitis as a major public health threat by 2030

- 90% of all people with chronic HCV diagnosed
- 80% of eligible persons with chronic HCV infection treated

Draft global health sector strategies on HIV and Viral hepatitis, 2016–2021 (WHO, April 2016)



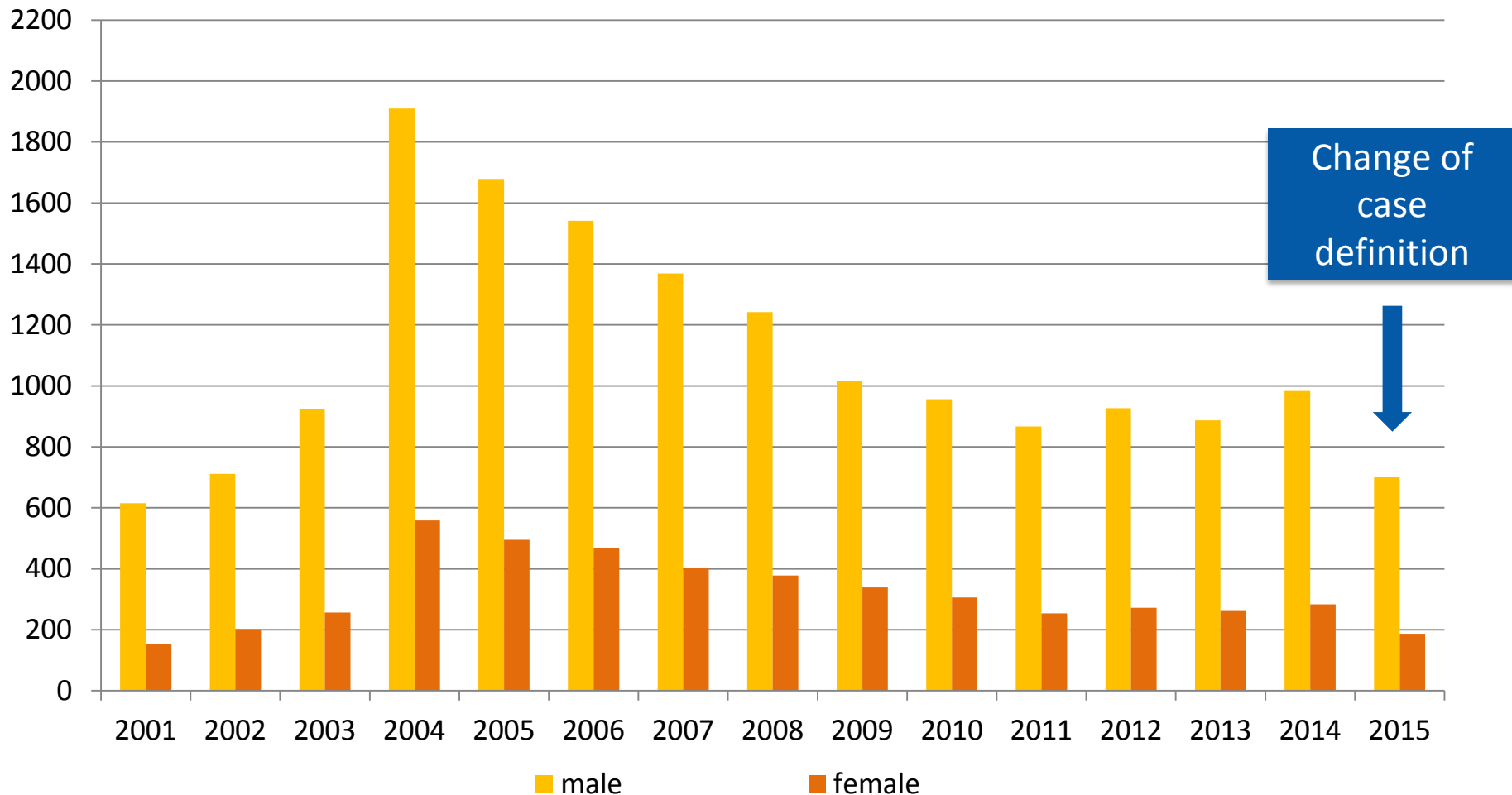
The situation in Germany (1)

- Prevalence of HCV is highest among PWID compared to other groups in Germany



Notified HCV cases 2001-2015 in Germany

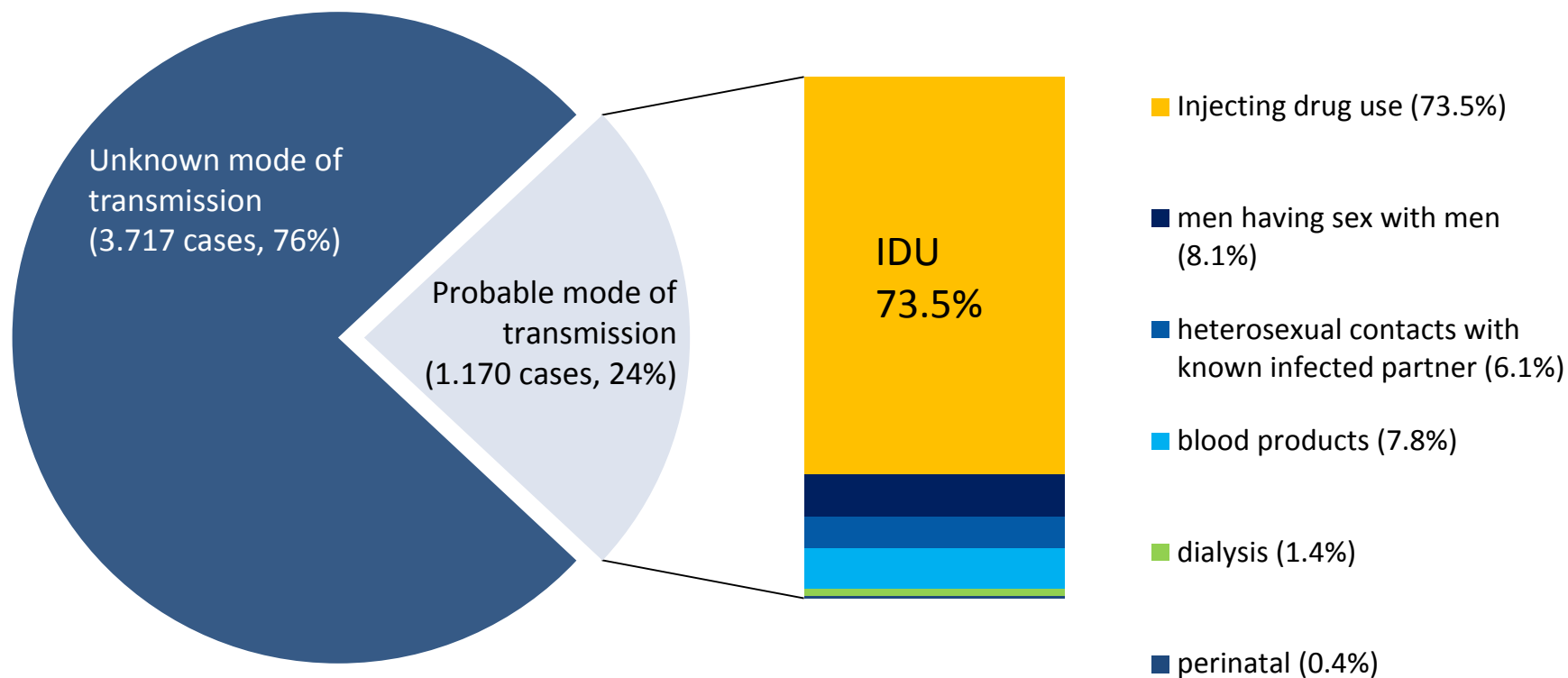
with IV drug use as mode of transmission





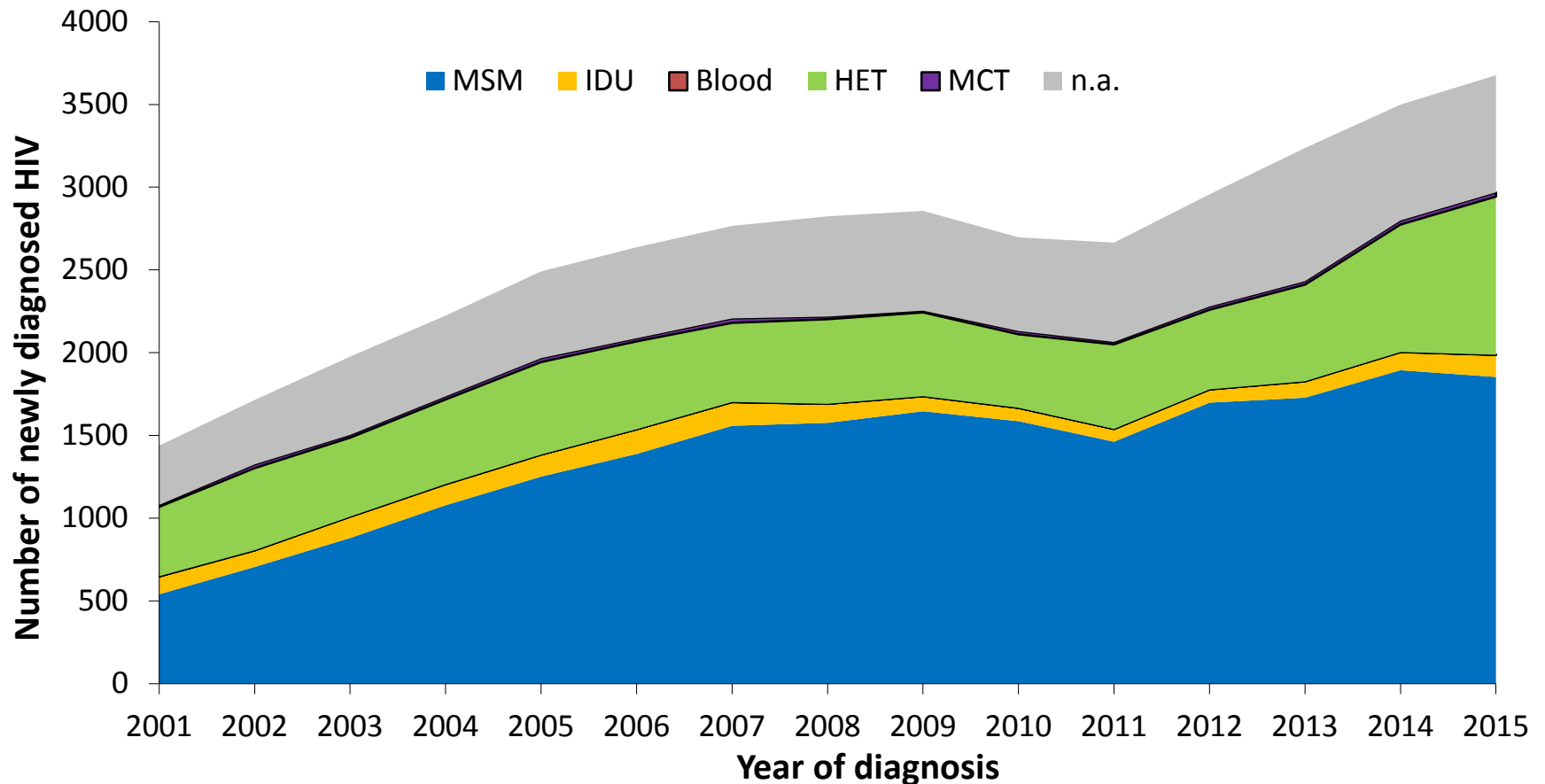
Probable mode of transmission of notified HCV cases

Germany, 2015





Number of newly diagnosed HIV infections by mode of transmission, Germany, 2001-2015



MSM= Men who have sex with men; IDU= i.v.-drug use; HET= heterosexual transmission; Blood= transmission through blood/blood products; MCT= mother-child transmission; n.a.= not available



The situation in Germany (2)

- HCV and HIV treatment recommendations for PWID are in place in Germany
- All effective treatment options for HIV and HCV are available
- No data on the number of tested, diagnosed, treated PWID available



Treatment cascades for special populations

- Testing/counselling on test result & treatment of infected persons are important infection control measures (individual and population basis)

- PWID belong to stigmatized, marginalized, criminalized populations
 - Difficulties in accessing testing and care services and remaining in care
 - High prevalence of comorbidities
 - increased HIV and HCV transmission risk

- Have a great need for services (specific to their needs) within the cascades of HIV and HCV prevention, diagnosis, care, and treatment.

- Yet the systems that monitor their progress through the Cascade are often lacking.



Objectives

- To provide information on the proportion of HIV- and HCV-infected PWID tested, diagnosed and treated
- To identify gaps in access and services for PWID in Germany
- To recommend which steps of the cascades need to be strengthened
- To evaluate the public health response to these infections specific to PWID (in comparison to other groups)



DRUCK-Study

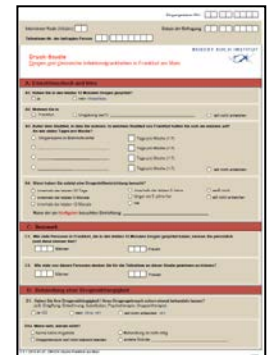
Drogen und chronische Infektionskrankheiten

Design

- Multicentre cross-sectional sero-behavioural survey 2011-15
- 8 cities in Germany
- People who injected drugs during the last 12 months
- 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





Methods

- Treatment cascades for HIV and HCV were calculated using laboratory results and behavioural data
- Definitions:
 - eligibility for ART:
 - if testing anti-HIV-positive (confirmed by Western Blot)
 - eligibility for HCV treatment:
 - if testing HCV-RNA-positive **or** reporting previous HCV treatment experience



Characteristics of participants

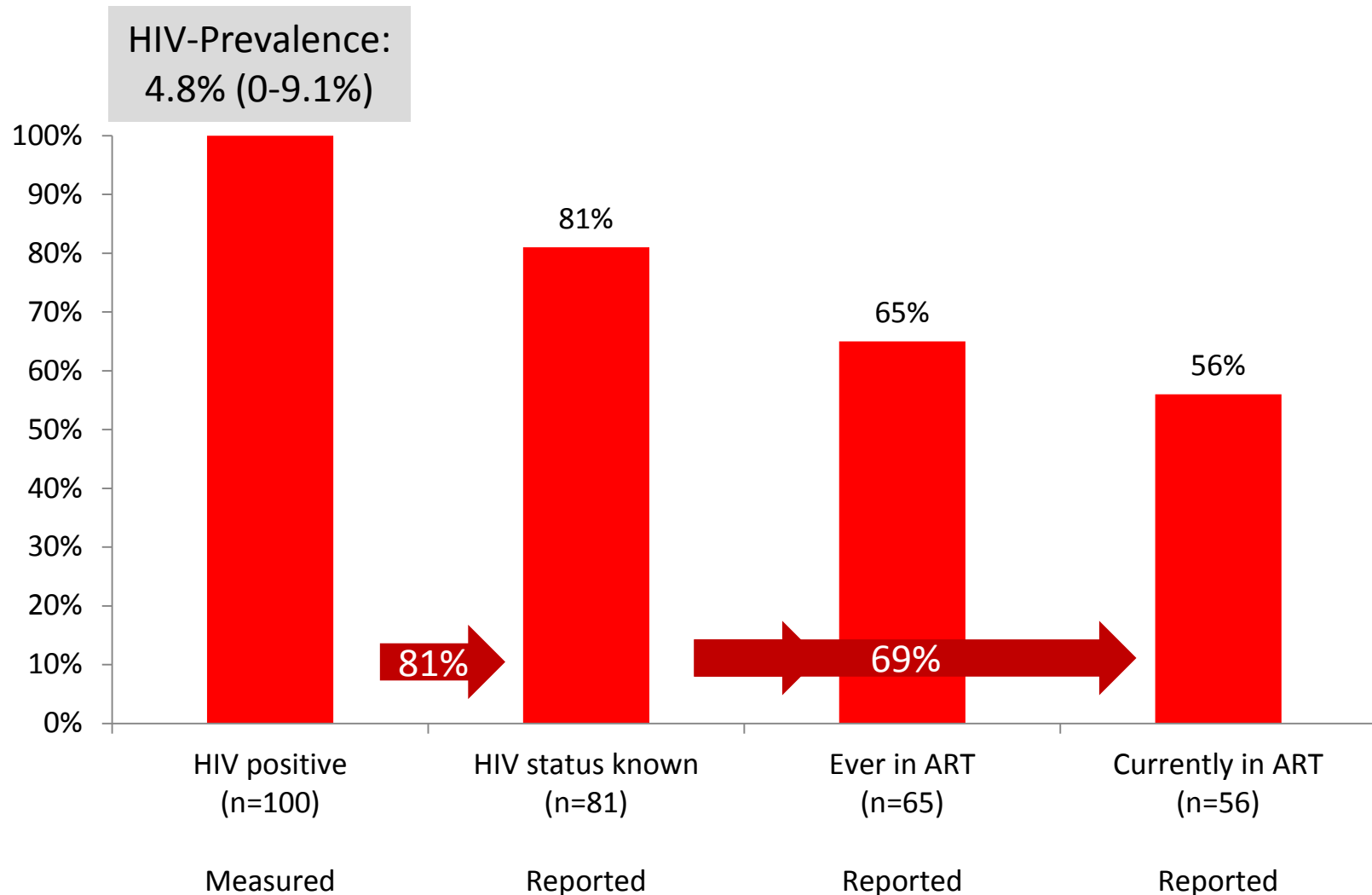
Range in the 8 study cities

- 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
- 37-74% were currently in opioid substitution therapy (OST)



HIV treatment cascade

DRUCK-Study 2011-2015; total study population, N=2.077





Success of antiretroviral treatment

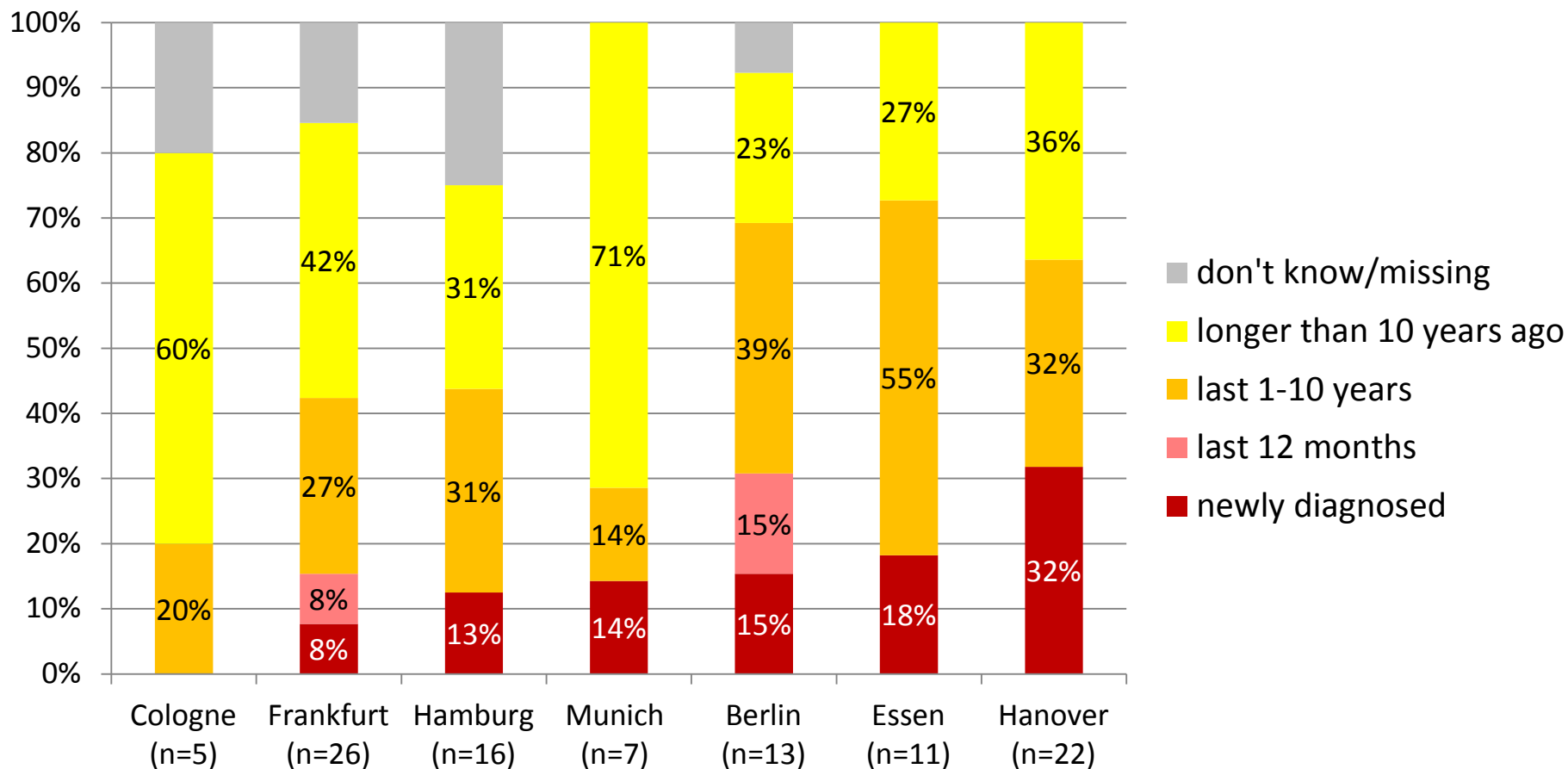
viral suppression

among PWID currently under ART
where a VL testing was conducted (n=39 out of 56 samples)

 **90%**



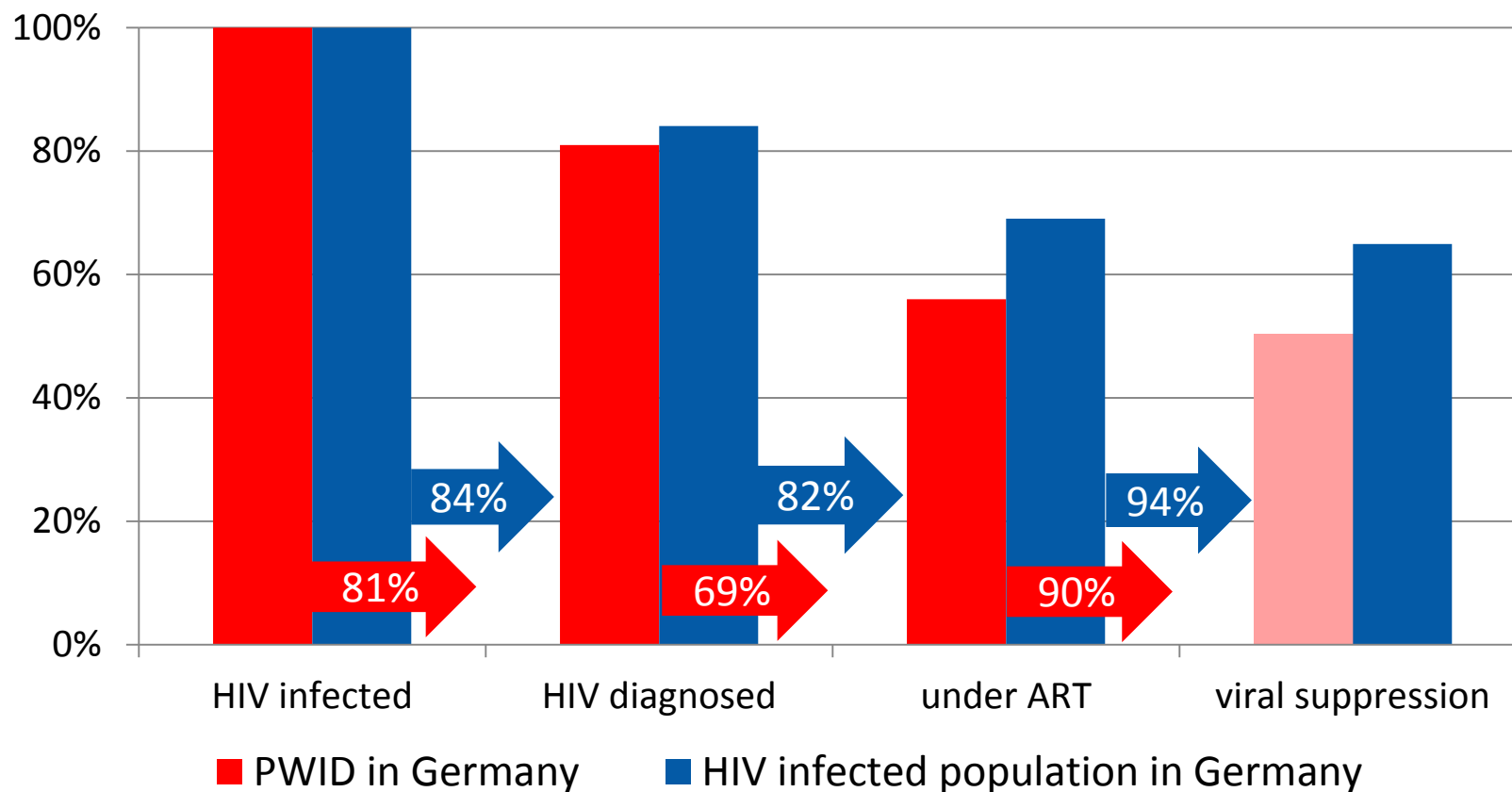
Recency of HIV diagnosis in 7 study cities (n=100 HIV-infected PWID)





HIV treatment cascade

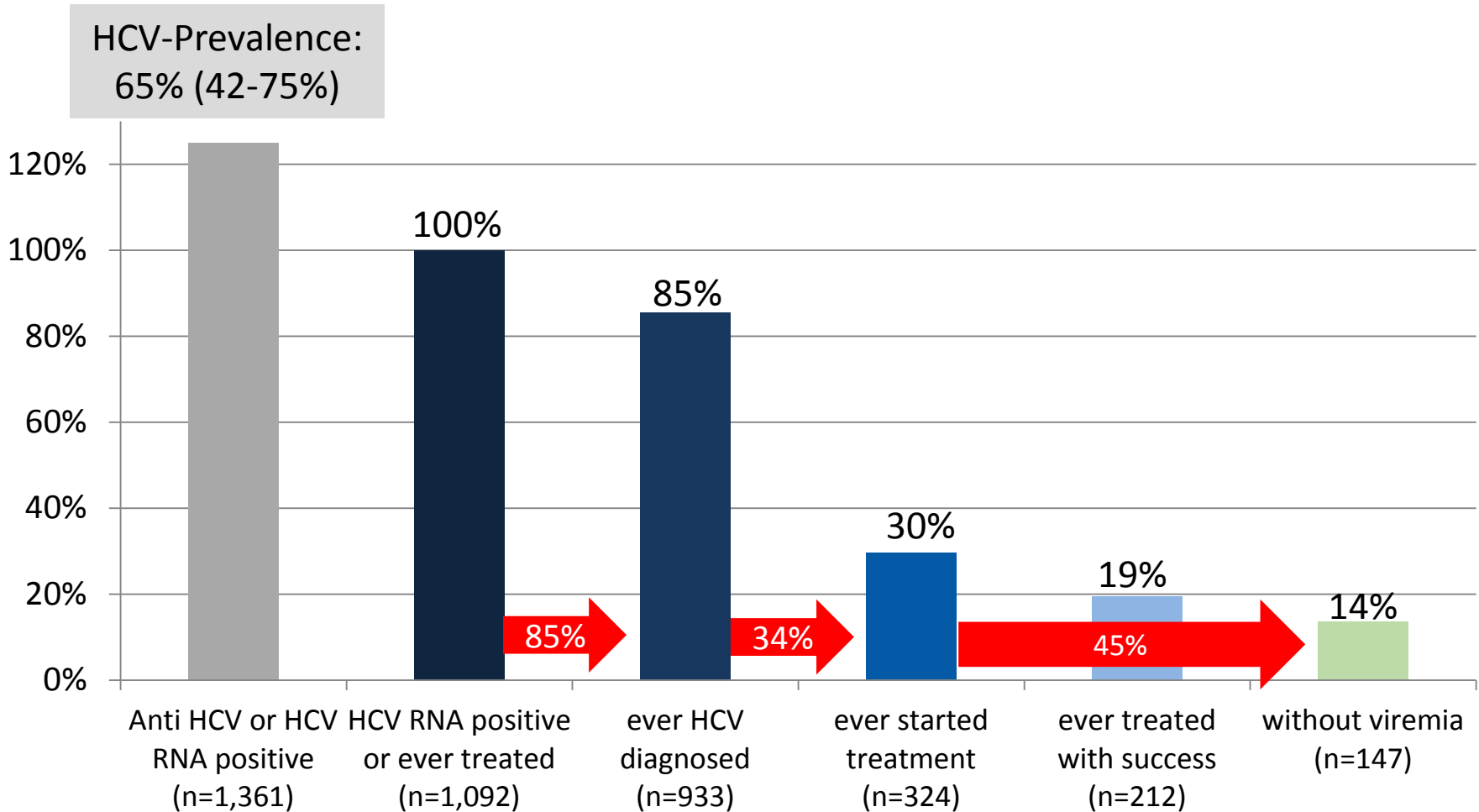
PWID vs. total HIV infected population in Germany





HCV treatment cascade

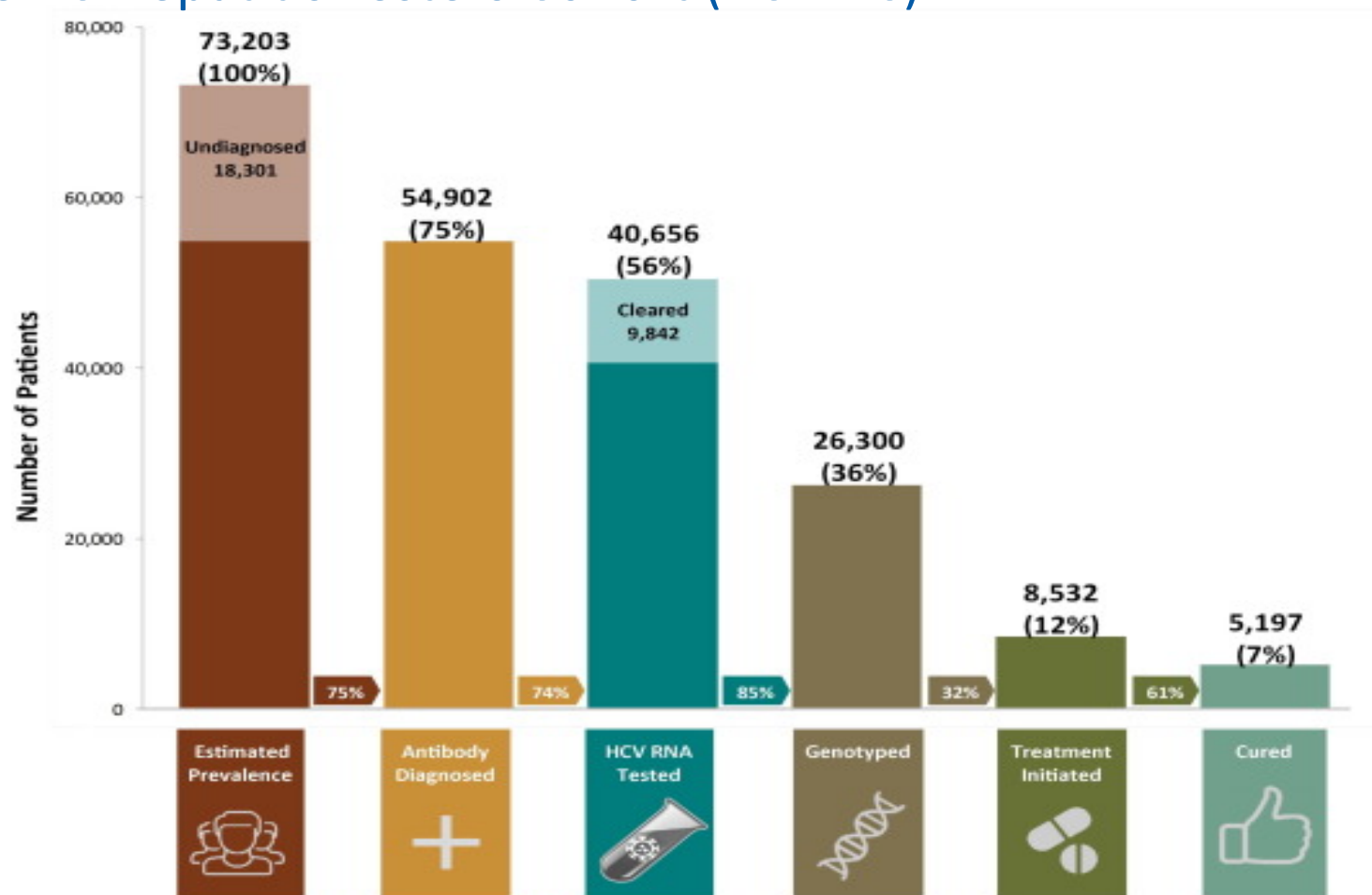
DRUCK-Study 2011-2015; total study population, N=2.077





The Population Level Cascade of Care for Hepatitis C in British Columbia, Canada

The BC Hepatitis Testers Cohort (BC-HTC)



Janjua NZ et al, EBioMedicine, 2016,
<http://dx.doi.org/10.1016/j.ebiom.2016.08.035>



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

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



Limitations

- Self-reported data, may cause over- or underestimation
- Proportion of HCV-diagnosed might be overestimated, confusion about tests, and about hep B & C
- 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 – situation might have changed
- Evaluation of prevention measures not possible: cross section



Conclusions

- high proportions of PWID eligible for HIV- and HCV-antiviral treatment
- relatively high proportions of tested and diagnosed individuals
- But often lack of exact knowledge about HCV status
- PWID in Germany are less HIV-tested, diagnosed and particularly treated than the total HIV infected population in Germany
- Interruption of ART seems relatively common in PWID
- If under ART, treatment seems to be highly effective.
- low proportion of HCV-treated PWID
- We suppose that PWID have poorer access to HCV-treatment than other patient groups in Germany (but no data)



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



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, Stine Nielsen, Doreen Nitschke, NRZ Hepatitis C, Doris Radun, Stefan Ross, Claudia Santos-Hövener, Dirk Schäffer, Suchthilfe Essen, Judith Stumm, Andrea Teti, Benjamin Wenz, Weidong Zhang

cooperating partners in drug services

all study participants

German MOH (financing partner)

Further results of DRUCK-Study:
See Posters No. 26 and 57