



Surveillance of injecting drug use and drug-related infectious diseases in the European Union

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Background

Infectious diseases such as HIV and viral hepatitis disproportionately affect injecting drug users (IDUs). IDUs also play an important role in the epidemiology of these diseases. 'Drug-related infectious diseases' (DRID: mainly HIV, HCV and HBV) and 'Problem drug use' (PDU: problem drug use including IDUs) are two of the 'key epidemiological indicators', and thus central areas of the EMCDDA's work. In this poster we aim to briefly describe the methods and some selected results of the EMCDDA's monitoring on DRID and PDU in the European Union.

Methods

IDU prevalence is estimated using 'indirect estimation methods', e.g. the capture-recapture method, that extrapolate prevalence from observed cases. Lag-correction and back-calculation techniques enable estimating incidence of heroin use (a proxy for IDU) from drug treatment entries (Figure 1). Indirect indicators such as % IDUs among treated heroin users, and % newly initiated IDUs in study samples are also used. HIV, HCV and HBV prevalence are estimated by testing samples of IDUs. Further information is obtained from HIV case-reports (in collaboration with the ECDC and WHO/Europe) and HCV/HBV notifications. Behavioural variables such as needle sharing and HIV/HCV testing have recently been added. The analytical work is strengthened through specific working groups that apply statistical and mathematical modelling to a variety of study questions, including the analysis of incidence and risk and protective factors for DRID and PDU/IDU.

Results

We estimate there to be about 1 million active IDUs in the EU.

- Differences in the national prevalence of IDUs seem large (Figure 2) and may partly explain differences in prevalence and incidence of IDU-related infectious diseases.
- HIV prevalence among IDUs differs strongly between countries (Figure 3) although the incidence of newly diagnosed and reported infections is on average low (not shown).
- Availability of prevention measures such as opioid substitution treatment and needle and syringe programmes has strongly increased in the EU, which may partly explain the low level of newly reported HIV infections in recent years.

Figure 5: Percentage IDUs among notified cases of HCV and HBV in the EU (where risk factor is known)

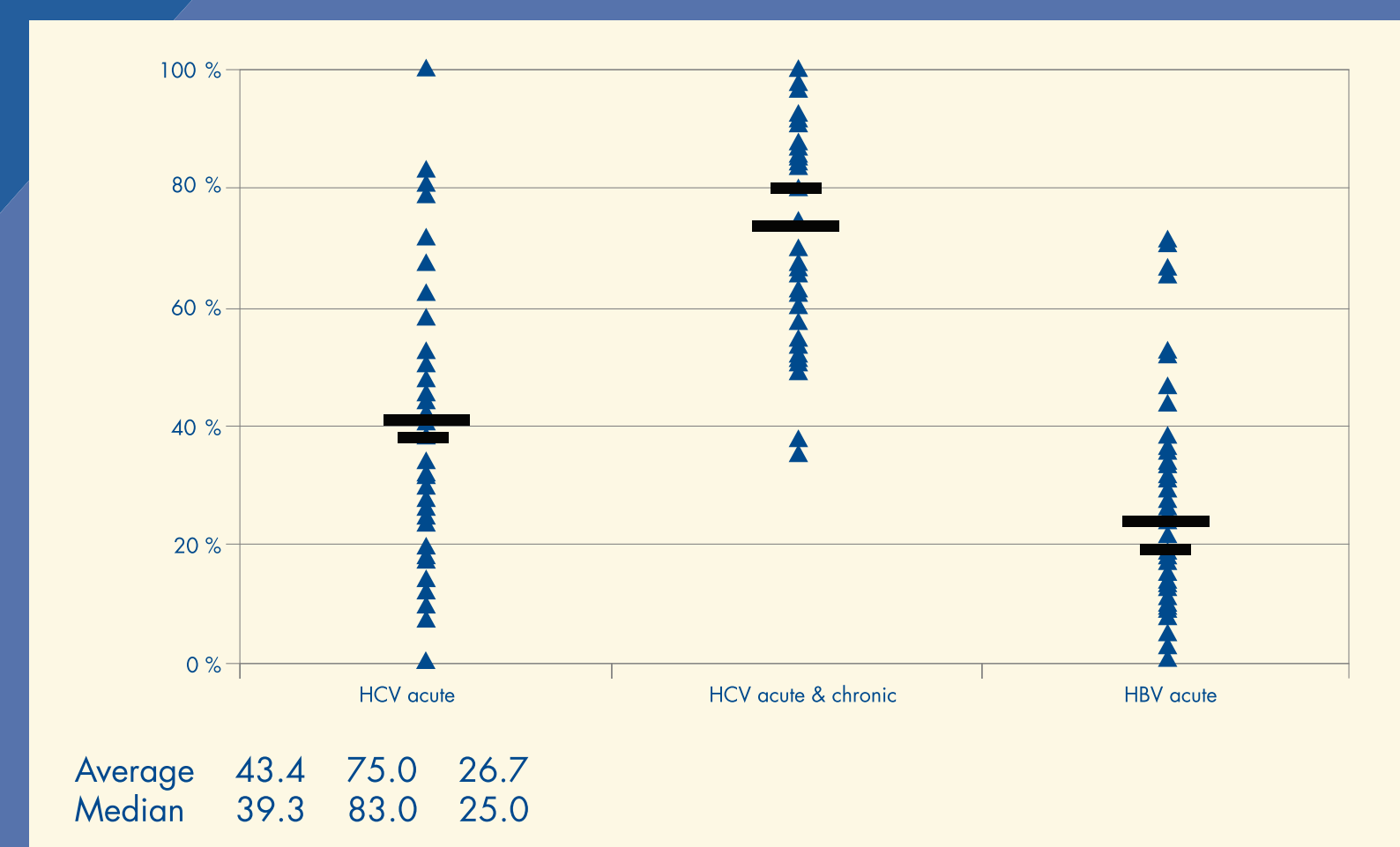
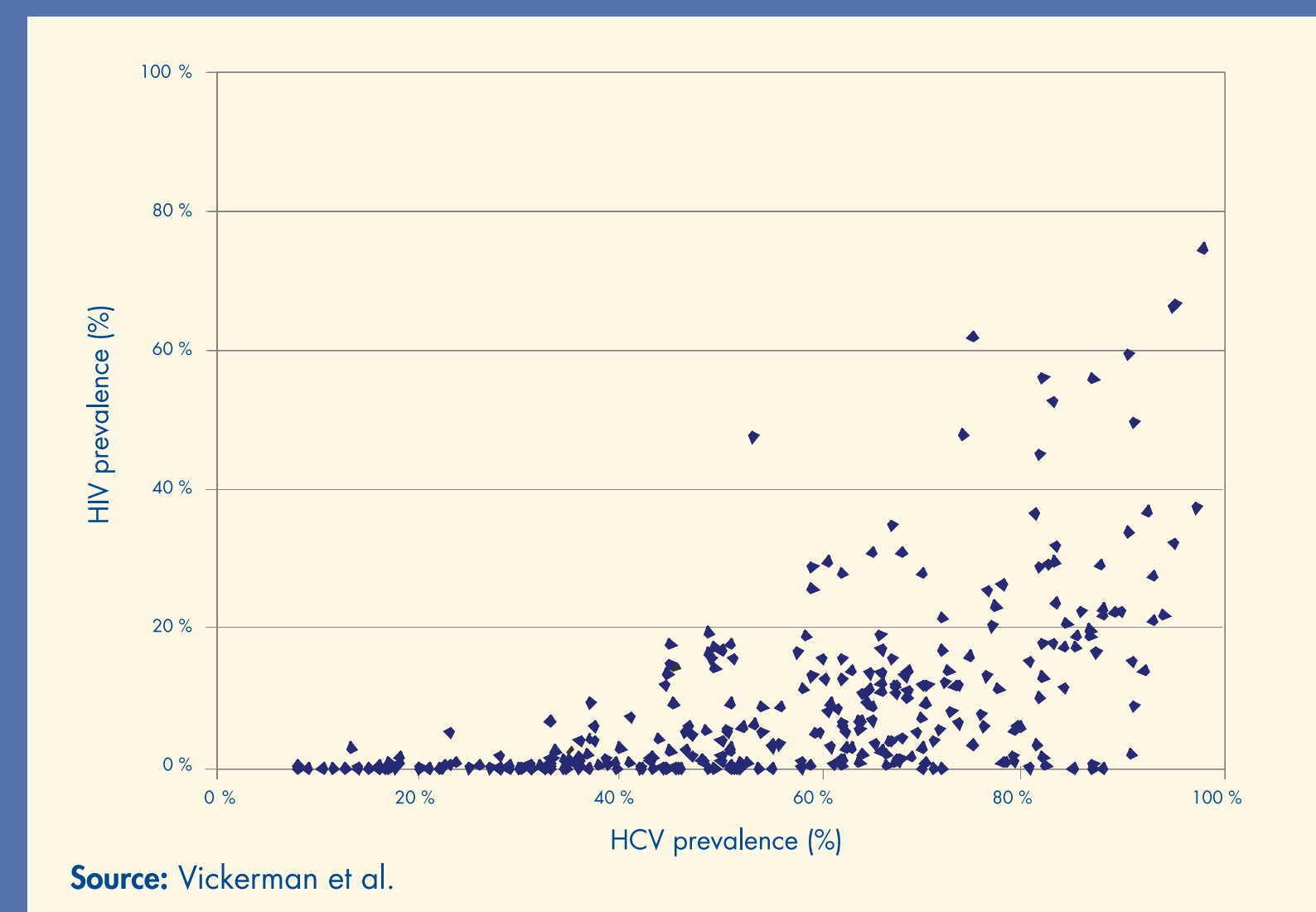


Figure 6: Association between HIV and HCV prevalence in IDU populations



- High prevalence of hepatitis C in IDUs (Figure 4), and in IDUs injecting less than 2 years, and in IDUs under age 25 (not shown), suggest that HCV transmission is still high.
- HCV and HBV notifications data suggest that IDUs form an important risk group for these infections (Figure 5).
- An association is apparent between HIV and HCV prevalence in IDU populations, with a threshold effect, where if HCV prevalence is under 30 % the probability of HIV epidemics is low (Figure 6).
- Differences in force of infection of HIV and HCV may be associated with differences in the heterogeneity of risk behaviour in IDU populations.
- The EU compares favourably both to its eastern European neighbours as well as globally, regarding: a) availability and quality of data b) prevalence and incidence of DRID and IDU c) availability and coverage of interventions to prevent DRID.

Conclusions

The EMCDDA, together with its key partners and expert networks, has established a system for monitoring drug-related infectious diseases and injecting drug use in the EU. This work is producing a range of results that are disseminated in EMCDDA publications and in the scientific literature, with the aim of informing public health policy in Europe.

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