**HCV TREATMENT AND PREVENTION: WHAT IS THE IMPACT OF CURRENT AND SCALED-UP TREATMENT RATES IN SELECTED SITES IN EUROPE?**

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**Background**: Prevention of hepatitis C (HCV) transmission among people who inject drugs (PWID) is critical to HCV prevention in Europe. We estimate the impact of current and scaled-up treatment rates on HCV chronic prevalence among PWID in selected European sites.

**Methods**: We collected data on PWID HCV treatment rates, sustained viral response (SVR) and other key parameters (HCV prevalence, coverage of opiate substitution therapy (OST) and needle and syringe programmes (NSP) and injecting duration) from 11 different country settings in Europe. We developed a dynamic model of HCV transmission among PWID stratified by injecting and intervention status, parameterized by setting-specific data. We used the model to project the impact of existing and scaled up interventions (doubling current treatments) on chronic prevalence among PWID in each setting.

**Results**: Chronic prevalence and PWID treatment rates varied widely across sites, from 50% (Finland/Sweden) chronic prevalence among PWID and from 10 (Czech Republic) treatments per 1000 PWID annually. Model projections show the impact of current HCV treatment rates with traditional therapies in combination with other interventions is unlikely to achieve an observable impact over the next 10 years. Switching therapies to new Direct Acting Antivirals (DAA), in combination with other interventions (OST and NSP), could lead to an observable reduction (>15%) in HCV chronic prevalence among PWID in a few sites (Belgium/Slovenia/Czech Republic) over 10 years. However, only through scaling-up DAA HCV treatment (doubling current treatment rates in each site), with OST and NSP, would observable reductions (>15%) in HCV prevalence be achieved in most settings.

**Conclusions**: Current strategies avert HCV, but treatment scale-up is necessary to substantially reduce HCV prevalence among PWID in Europe. Uncertainty in HCV treatment rates and HCV prevalence needs to be reduced in order that intervention impact can be evaluated.