EARLY IMPACT OF DIRECT-ACTING ANTIVIRALS ON CHRONIC HEPATITIS C PREVALENCE AMONG PEOPLE WHO INJECT DRUGS IN ENGLAND: REAL WORLD DATA, 2011-2017.

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Background: The use of direct-acting antivirals (DAAs) for Hepatitis C virus (HCV) treatment has been scaled up in the UK since 2015. The initial impact of this on chronic HCV prevalence among the key affected population of people who inject drugs (PWID) was assessed.

Methods: We analysed questionnaire data and virological results from the unlinked-anonymous bio-behavioural survey of PWID in England for 2011, 2014, 2016 and 2017 as part of the EPIToPe study. Temporal changes in the proportion chronically infected (HCV RNA positive) among those ever infected (HCV antibody positive) were examined in a multivariable model. Geographical region, gender, age and injecting status in the past year were considered *a priori* as confounders.

Results: Of 2211 survey participants in 2011, 906 (41.0%) were ever infected, over half of whom (58.2%) were chronically infected. The proportion chronically infected among those ever infected was similar in 2014 (56.8%; 663/1167, p=0.54) and 2016 (55.9%; 612/1095, p=0.31), but fell to 49.7% in 2017 (584/1174, p<0.001). After adjustment, year was significantly associated with chronic infection (p<0.001), but a decrease was only observed in 2017 (aOR 0.72, 95%CI 0.59-0.86, p=0.001). Other factors associated with chronic infection in multivariate analysis were gender (female aOR 0.63, 95%CI 0.55-0.73) and region (p=0.001). History of homelessness was associated with chronic infection at the univariable level (OR 1.22, 95%CI 1.05-1.43, p=0.01).

Conclusion: These data present trends in chronic HCV among PWID for the first time and show a small recent reduction in HCV infection at the same time as scale-up of DAA treatment among PWID. The odds of chronic infection in 2017 are less than three-quarters that in 2011. Monitoring at the population level is critical to evaluating HCV treatment as prevention, and there needs to be considerable treatment scale-up for England to meet WHO elimination targets.

Disclosure of Interest Statement: This study is funded by the National Institute for Health Research (NIHR) Programme Grants for Applied Research programme (Grant Reference Number RP-PG-0616-20008. The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.