THE CHANGING ROLE OF INJECTING DRUG USE IN THE HEPATITIS C VIRUS EPIDEMIC IN GEORGIA AND PATHS TO ELIMINATION

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Background:
Georgia has one of the highest hepatitis C virus (HCV) prevalence rates in the world, with >5% of adults chronically infected, and a high historical rate of injecting drug use (>4% of adults and 38% of those with chronic HCV report injecting drugs). Georgia has scaled up HCV treatment to 2,100/month aiming to eliminate HCV by 2020.

Methods:
We developed a model of HCV transmission in Georgia incorporating changing demographics of people who inject drugs (PWID). Using data from a 2015 national sero-survey and PWID surveys 1997-2015, the model was calibrated to PWID age distributions and HCV prevalence by age, gender, and PWID status. We explored the contribution of PWID to the HCV epidemic and reaching a 90% reduction in incidence by 2020.

Results:
The PWID population peaked in the 1990s with up to 140,000 active PWID, declining to 41,000 (16,000-53,000) in 2010. HCV incidence in PWID has decreased from 21 (11-35) per 100 person-years in 2000 to 9.6 (4-13) in 2015 alongside the introduction of harm reduction measures. As a result, the proportion of HCV infections attributable to PWID has declined from 74% (37-89%) over 1985-2000 to 32% (9-50%) over 2000-2015, and will be 17% (2-41%) over 2015-2030. Most prevalent infections in 2015 were in active (15%) or former PWID (44%). At the current rate of treatment, by 2020 incidence will decrease by 67% (62-84%) if PWID are not treated, 80% (75-92%) if all treated equally, and 85% (83-93%) if PWID are treated at twice the rate of non-PWID.

Conclusions: In Georgia, injecting drug use drove the HCV epidemic in the past, and current and former PWID are infected with HCV at high prevalence. Although

PWID contribution to the epidemic has declined over time, reaching current PWID for HCV treatment is necessary to reduce incidence to the target.

Disclosure of interest statement: None to disclose