

# ESTIMATION OF THE NUMBER OF PEOPLE WHO INJECT DRUGS AND LIVE WITH HIV AND VIRAL HEPATITIS CO-INFECTION IN UKRAINE

Dumchev K<sup>1</sup>, Kornilova M<sup>2</sup>, Saliuk T<sup>2</sup>, Varetska O<sup>2</sup>

1 Ukrainian Institute on Public Health Policy, Kyiv, Ukraine

2 Alliance for Public Health, Kyiv, Ukraine

## Background:

People with triple co-morbidity including drug dependence, HIV and viral hepatitis (VH) face significant challenges in accessing life-saving treatments. Countries with injecting drug use (IDU)-driven HIV epidemics, such as Ukraine, often lack reliable estimates to plan programs addressing these barriers. We undertook a standardized assessment of risk factors among registered HIV patients to estimate the number of PWID with HIV/VH coinfection.

## Approach:

The study population included all 3,913 HIV cases registered during three periods (October-December) in three years (2013, 2014, 2015) in 7 regions of Ukraine. 2,285 were randomly recruited for a confidential survey assessing past risk behaviors administered by trained interviewers. Blood samples were tested for hepatitis B and C serologic markers.

## Outcomes:

Of 2,285 participants, 1,032 (45.2%) were females. Past IDU was reported by 45.1% of patients (59.2% in males and 27.5% in females). Among those with IDU history, 84.1% were positive for anti-HCV antibodies, and 4.6% for HBsAg. Among patients denying IDU, 28.1% were HCV-positive, and 2.6% HBsAg-positive.

Among 141,371 people who live with HIV (PLWH) registered in Ukraine as of 01/01/2018, we estimate that 52,275 (95%CI: 49,505-55,086) PWID have HCV and 2,895 (95%CI: 2,143-3,802) have HBV. Additional 21,878 (95%CI: 19,835-24,031) patients with HIV/HCV could have been infected through IDU, but decided not to disclose this experience.

Extrapolating these rates to the national PLWH estimate of 238,000, we calculated that 126,933 (95%CI: 122,037-131,812) HIV+ PWID can be co-infected with HCV and 4,874 (95%CI: 3,608-6,401) with HBV.

## Conclusion:

HCV is known to accelerate HIV infection and increase mortality, therefore people with HIV/HCV coinfection should be a priority as treatment becomes more accessible.

In Ukraine, the number of PLWH who have VH and are current or former PWID is high. Special efforts are required to improve engagement and adherence to VH treatment and prevent re-infection in this population.

## Disclosure of Interest Statement:

*The authors report no conflicts of interest.*