

## INTRODUCTION

- In 2016, the WHO released a Global Health Sector Strategy to eliminate Hepatitis C (HCV) as a global health threat by 2030 <sup>(1)</sup>.
- In the UK, injecting drug use is cited as a risk factor in ~ 90% of all laboratory reports of HCV infection where risk factors are disclosed <sup>(2)</sup>.
- Around 1 in 2 people who inject drugs (PWID) have ever been infected with HCV (HCV antibody positive) in the UK <sup>(3)</sup>.
- From 2016, samples collected through the Unlinked Anonymous Survey of People Who Inject Drugs (UAM Survey of PWID) were tested for HCV RNA as well as HCV antibodies.
- HCV RNA is a marker of current viral infection, allowing for monitoring of incidence and chronic prevalence, as well as the evaluation of interventions such as Direct Acting Antiviral (DAAs) treatments <sup>(4)</sup>.
- Here we aim to review HCV testing uptake, diagnosis and access to care and treatment among PWID currently infected with HCV. We also examine factors associated with a current HCV infection.

## METHODS

The UAM Survey recruits people who have ever injected psychoactive drugs through collaborating drug and alcohol services across England, Wales and Northern Ireland.

Participants completed a questionnaire and provide a Dried Blood Spot (DBS) sample.

DBS samples were tested for virological markers for HIV, hepatitis B and hepatitis C.

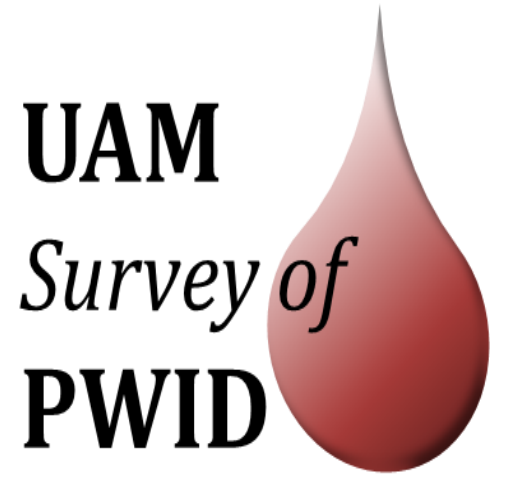
Hepatitis C testing includes testing for:

- HCV antibodies (indicating ever infection with the virus)
- HCV RNA (indicating current infection - data available from 2016 onwards)

UAM Survey data were analysed for 2017 to determine self-reported access to care and treatment. Factors associated with a current HCV infection were investigated using survey data from 2016-17 through multivariate analysis in Stata 15.

UAM Survey data were included where participants:

- Injected in the past year
- Were HIV-negative
- Had complete data for age and gender

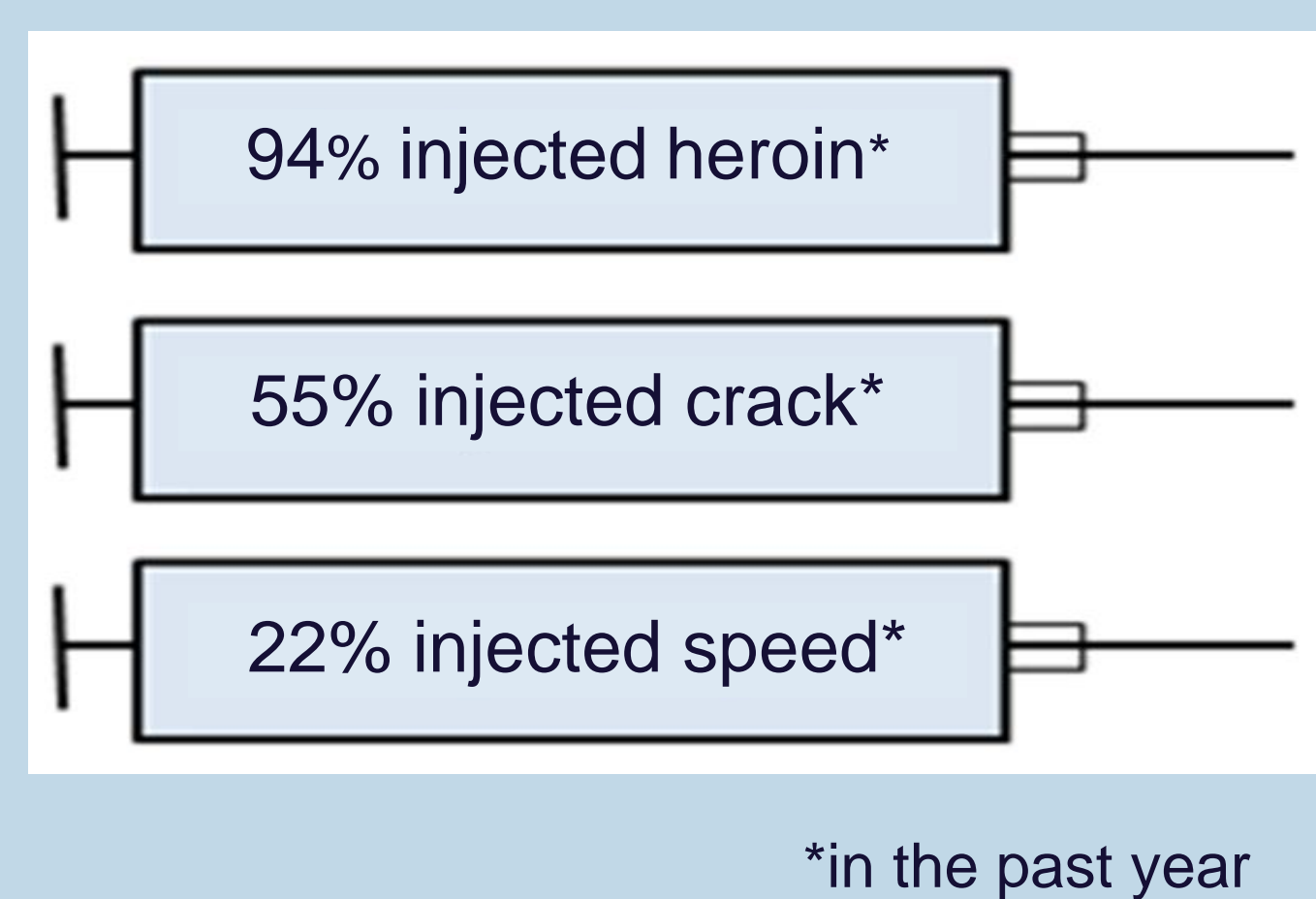


## RESULTS

### Sample demographics:

3,513 eligible participants in 2016/17

- Median age: 38 years
- 73% male
- 95% UK born
- 78% ever homeless
- 69% ever imprisoned



\*in the past year

### Cascade of care among 2017 survey participants:

- The cascade of HCV care among PWID surveyed during 2017 is displayed in Figure 1.
- Of all PWID, **56%** were antibody positive.
- Of these, **51%** were RNA positive, indicating a current infection with the virus.
- Of those currently infected, **55%** were aware of their current infection.
- Of those diagnosed, only **20%** were on treatment.

### Factors associated with a current HCV infection among 2016-17 survey participants:

- Crack injection in the last year was the largest risk factor for a current HCV infection (AOR 1.72; Figure 2).
- Other factors associated with a current infection include being hepatitis B (HBV) positive and reporting; ever imprisonment, being born outside of the UK, ever uptake of a HCV diagnostic test and ever being homeless (Figure 2).
- Factors not associated were: transactional sex, sharing of needles/syringes, having overdosed and injection of drugs other than crack.

Factor	Adjusted Odds Ratio	95% CI
Injected crack in the past year	1.72	1.43-2.05
HBV positive	1.61	1.28-2.03
Ever imprisoned	1.52	1.24-1.87
Born outside of UK	1.52	1.05-2.20
Ever tested for HCV	1.34	1.03-1.75
Ever homeless	1.31	1.05-1.65

Figure 2: Factors associated with current HCV infection among participants of the 2016-17 UAM survey in multivariate analysis

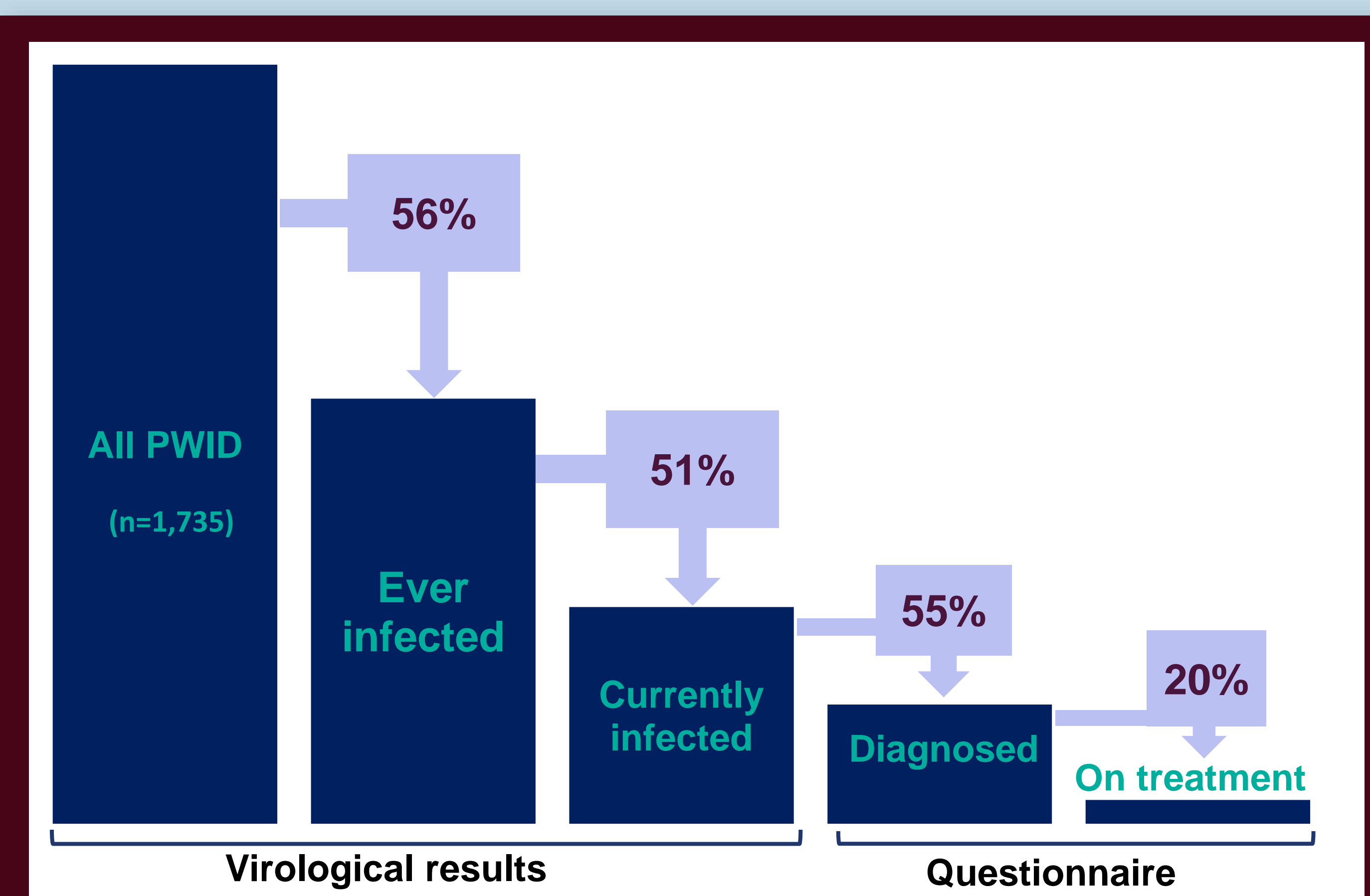


Figure 1: Cascade of care among PWID participating in the 2017 survey

## DISCUSSION

- Half of PWID surveyed have ever been infected with HCV, with half of these found to be currently infected with the virus.
- Half of those with a current HCV infection are undiagnosed, indicating that more needs to be done if the UK is to reach the WHO target of 90% HCV RNA-positive PWID diagnosed by 2030 <sup>(5)</sup>.
- Identifying factors associated with current HCV infection is essential to targeting testing and treatment to those most at risk.
- Crack injection in the last year was found to have the strongest association with current HCV infection; this is likely due to increased injecting frequency and chaotic injecting behaviours associated with stimulant use <sup>(6)</sup>.
- With the development of highly effective antivirals, early diagnosis and entry into care is increasingly important to reduce HCV related illness and transmission.
- Only one fifth of those diagnosed are engaged into treatment for their HCV, indicating the need to strengthen the care pathway.
- Ensuring PWID with a current HCV infection have access to care and treatment is essential to reaching the WHO target of 75% treatment coverage of people diagnosed with chronic HCV by 2020 and 80% by 2030 <sup>(7)</sup>.

## LIMITATIONS

- These results are based on a sentinel sample using a self-completed questionnaire.
- Self-reports regarding testing uptake and access to care may be affected by recall bias.
- The survey's sampling frame ensures a good sample size and geographical coverage, however, any biases in participation could affect the results.
- Over-representation of individuals with higher risk, could overestimate HCV prevalence, and vice-versa.

## ACKNOWLEDGEMENTS

We are grateful to the survey participants and collaborating sites across the UK for their support of the UAM Survey of PWID.

## REFERENCES

- World Health Organization. Global health sector strategy on viral hepatitis, 2016-2021. Towards Ending Viral hepatitis. 2016. Available from: <http://apps.who.int/iris/bitstream/10665/246177/1/WHO-HIV-2016.06-eng.pdf?ua=1>. [Accessed: 01/03/2019]
- Public Health England. Hepatitis C in England 2019 Headline Data Table. 2019. Available from: <https://www.gov.uk/government/publications/hepatitis-c-in-the-uk>.
- Public Health England NIS. Data tables of the Unlinked Anonymous Monitoring Survey of HIV and Hepatitis in People Who Inject Drugs. 2018.
- Public Health England, Health Protection Scotland, Public Health Wales, Public Health Agency Northern Ireland. Shooting Up: Infections among people who inject drugs in the UK, 2017. London: 2018.
- Public Health England. Hepatitis C in the UK report. PHE, 2018.
- Clatts et al. An ethno-epidemiological model for the study of trends in illicit drug use: reflections on the 'emergence' of crack injection. International Journal of Drug Policy, (13;4) 2002, Pages 285-295
- World Health Organisation, Action plan for the health sector response to viral hepatitis in the WHO European Region. Regional Committee for Europe 66<sup>th</sup> Session, Copenhagen, Denmark, 12-15 September 2016.