Increasing HCV prevalence among people who inject drugs in India despite improved treatment uptake

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Shruti H. Mehta[1], Mihili P. Gunaratne[1], Aylur K. Srikrishnan[2], Ashwini Kedar[3], **Allison M. McFall[1]**, Jiban J. Baishya[4], Muniratnam Suresh Kumar[2], Pradeep Amrose[2], Jayaseelan Boobalan[2], Gregory M. Lucas[1], David L. Thomas[1], Sunil S. Solomon[1]

[1]Johns Hopkins University, Baltimore, MD, USA; [2]YR Gaitonde Centre for AIDS Research and Education, Chennai, India; [3]YR Gaitonde Centre for AIDS Research and Education, New Delhi, India; [4]Johns Hopkins University, New Delhi, India

BACKGROUND

- To reach global HCV elimination goals, 90% of those with chronic HCV should be diagnosed, of whom 80% should be treated by 2030
- PWID experience a disproportionate burden of HCV and are a priority population for HCV prevention, care, and treatment

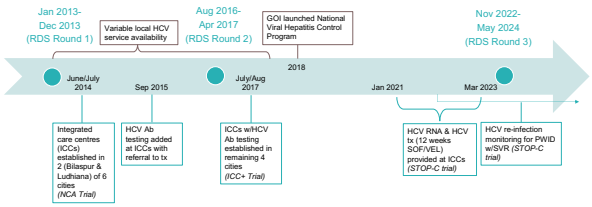
OBJECTIVE

- To characterize temporal changes in community HCV burden, HCV diagnosis, treatment uptake, and aviremia among PWID in 6 Indian cities 2013-2024

METHODS

- 3 serial cross-sectional surveys using respondent-driven sampling (RDS) in 6 Indian cities
- Round 1: 2013 (1000 PWID/city), Round 2: 2016-17 (1000/city), and Round 3: 2022-24 (750/city)
- Inclusion criteria: ≥18 years old and injection drug use in the prior 2 years
- Interviewer-administered survey and blood draw
- Onsite rapid HCV antibody (Ab) testing with HCV RNA measured on stored samples
- Population outcomes by RDS data collection round:
  - HCV Ab and HCV viremia prevalence (HCV RNA≥30 IU/mL)
  - HCV diagnosis among those with chronic infection (viremic or reported prior HCV treatment)
  - HCV treatment among those diagnosed
  - Aviremia (HCV RNA<30 IU/mL) among those treated
- Correlates of diagnosis and aviremia among chronic HCV infection from the 2022-24 data explored using unadjusted prevalence ratios

Figure 1 Timeline of HCV service availability in India



RESULTS

Table 1 Population characteristics by RDS round

Median/%	Round 1: 2013 (N=5998)	Round 2: 2016-17 (N=5999)	Round 3: 2022-24 (N=4498)
Age (years)	28	30	29
Male sex	96	98	98
Injection drug use in prior 6 months	91	91	99
Shared needles/in prior 6 months	31	39	43
Living with HIV	18	24	42
Viral load>150 copies/mL	85	83	75

Community burden of HCV among PWID in India has doubled over the past decade despite increased uptake of HCV testing and treatment

Figure 2 HCV antibody and viremia prevalence by year

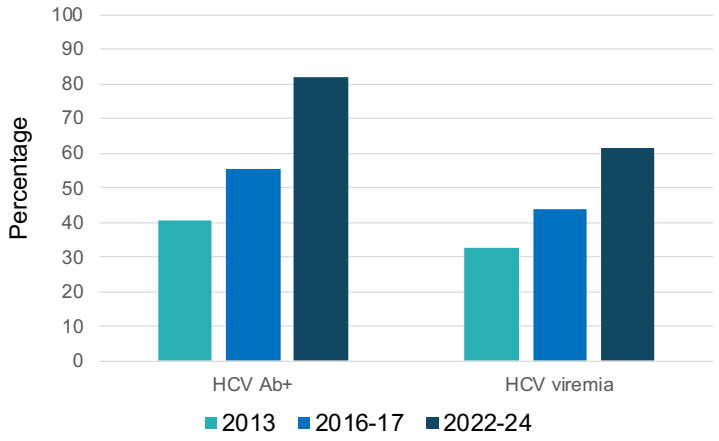


Figure 3 HCV diagnosis, treatment, and aviremia by year

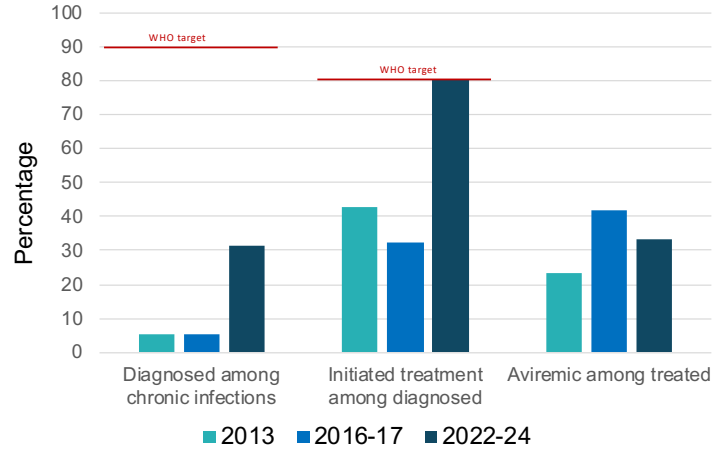


Figure 4 Correlates of HCV diagnosis

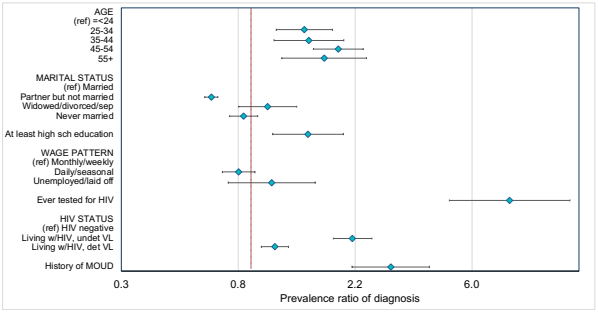
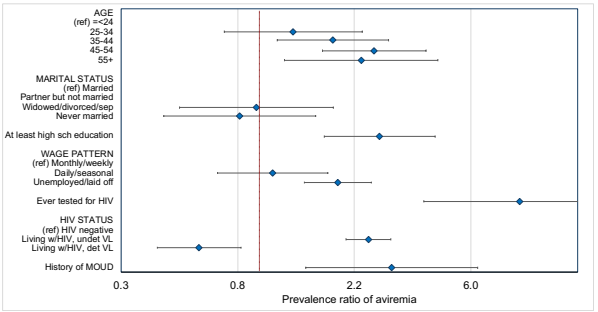


Figure 5 Correlates of HCV aviremia



Red line indicates a prevalence ratio of 1.0
MOUD=medication for opioid use disorder; undet=undetectable; det=detectable; VL=HIV viral load

CONCLUSIONS

- Both HCV antibody and viremia prevalence doubled between 2013 and 2022-24 among PWID in 6 Indian cities
- WHO target for HCV treatment uptake among diagnosed met in most cities but there was no change in aviremia among those treated or prevalence of viremia in the population
- Level of testing and treatment scale up was not sufficient to prevent primary infection or reinfection among PWID actively injecting

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Contact: Allison M. McFall (amcfall2@jhu.edu)