A GLOBAL SYSTEMATIC REVIEW OF EFFORTS TO ACCELERATE THE ELIMINATION OF HEPATITIS C THROUGH MICRO-ELIMINATION AMONG PWID AND OTHER TARGET POPULATIONS

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Background:
The introduction of new hepatitis C virus (HCV) all-oral direct-acting antiviral therapy in 2013 galvanized WHO to define ambitious targets for eliminating HCV as a public health threat by 2030. Micro-elimination projects help achieve this goal by targeting small-scale, high-risk populations. Through such targeting, micro-elimination reveals effective strategies and partnerships to guide the scale-up of national elimination efforts. The aim of this study was to document and quantify the evidence that exists to support HCV micro-elimination among high-prevalence populations globally.

Methods:
We systematically searched the literature on PubMed/Medline from 1/1/2014 to 31/12/2020 and relevant scientific conference abstract titles from 2017-19 (AASLD, APASL, ILC, INHSU, IVHEM). Modelling studies were excluded. Results were synthesized and quantified in terms of key micro-elimination components (having a plan, specific targets, multistakeholder process, and monitoring of outcomes).

Results:
We identified 957 articles, of which 32 full-text manuscripts fit the inclusion criteria in addition to 28 conference abstracts reporting on micro-elimination initiatives. Among the manuscripts, interventions to eliminate HCV mainly focused on people who are incarcerated (9), people who inject drugs (PWID) (7), and people who are HIV/HCV co-infected (5) (Figure 1). Half of the conference abstracts (n=14) were PWID focused. Micro-elimination initiatives were reported predominantly in high-income countries (81.2%; 26/32). Overall, 75% of the manuscripts and conference abstracts reported at least 3 out of 4 of the micro-elimination components. Thirteen manuscripts had documented sustained virologic response (SVR) rates above 90%, 7 had between 89-80%, 6 below 79%, and 4 below 50%.

Conclusion:
HCV micro-elimination has become increasingly employed to achieve HCV elimination targets for key sub-populations but is not yet widespread. Micro-elimination strategies can achieve high SVR rates and should contribute to reaching national elimination goals. More initiatives should be encouraged and shared, particularly in low and-middle income countries.

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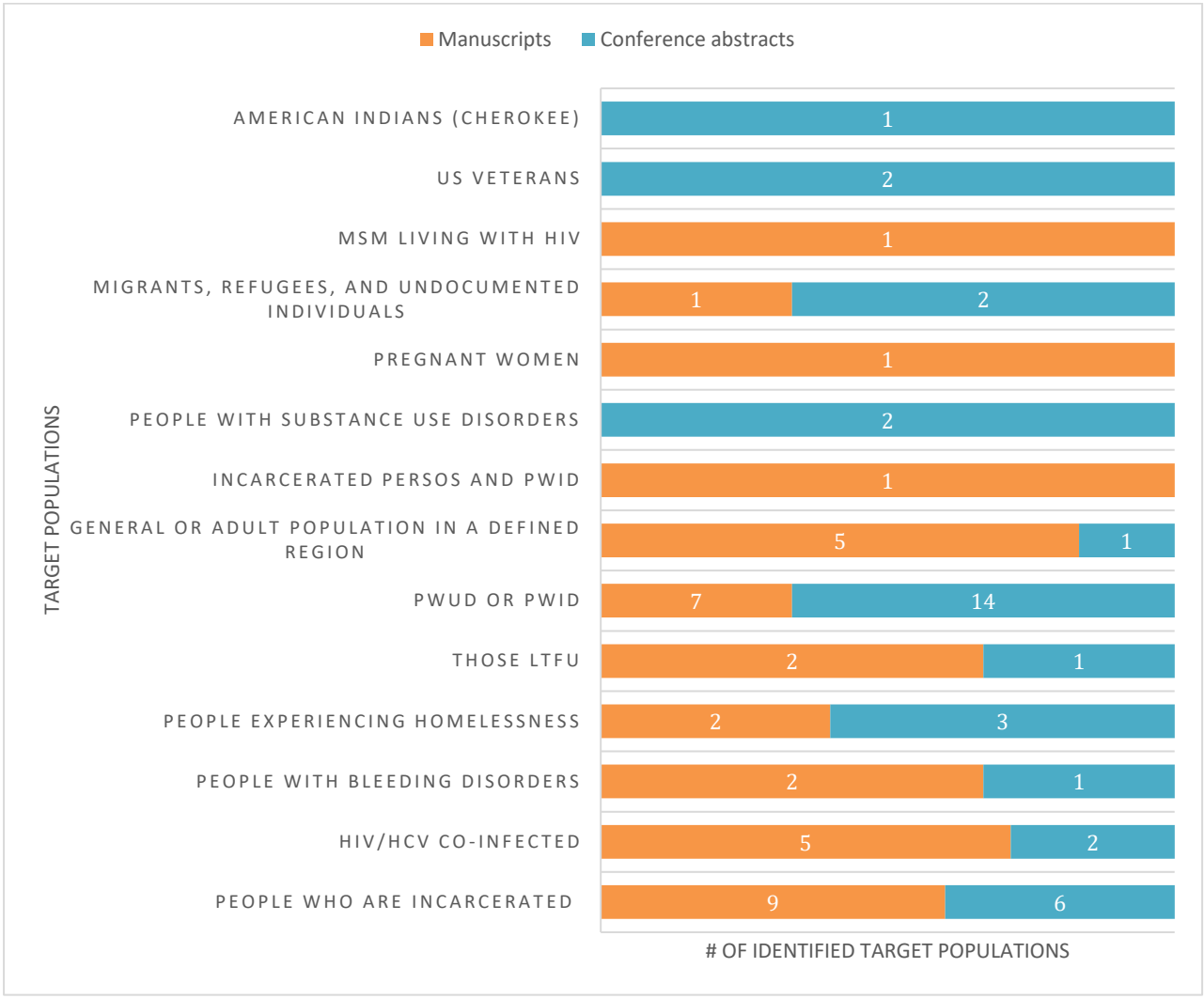
Figure 1. List of identified micro-elimination target populations in published articles from 2014-2020 and conference abstracts from 2017-2019



HCV, hepatitis C virus; LTFU, lost to follow-up; MSM, men who have sex with men; PWID, people who inject drugs; PWUD, people who use drugs; US, United States.