

FIB-4 INDEX AND APRI TO ASSESS SHIFTING PREVALENCE OF ADVANCED FIBROSIS IN HOMELESS ADULTS WITH HEPATITIS C IN BOSTON

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Background: The use of non-invasive fibrosis assessment calculations, are appealing clinical tools in community-based healthcare settings that serve marginalized populations with hepatitis C (HCV).

Boston Health Care for the Homeless Program (BHCHP) has identified a 23% prevalence of HCV infection and excess mortality from liver disease. Application of the FIB-4 index and APRI can aid in efforts to engage marginalized patients in curative HCV therapy and appropriate liver care within the health home where they also receive primary, behavioral and substance use treatment.

Methods: Retrospective data were extracted for all individuals with viral load-confirmed HCV and a medical visit at BHCHP within two one-year time periods, 9/1/2010-9/1/2011 and 9/1/2015-9/1/2016. APRI and FIB-4 calculations were tabulated and compared over time and to a national housed sample. BHCHP data was stratified by age, separating individuals born before 1965 (“baby-boomers”) to mirror the age of the national sample and the focus of US HCV efforts.

Results: Overall the BHCHP HCV population is younger than the national sample and has lower average rates of advanced fibrosis and cirrhosis. Total prevalence of F3-F4 fibrosis by FIB-4 has improved from 19.3% in 2010 to 15.7% in 2015 and APRI scores indicating high probability of cirrhosis decreased from 12.8% in 2010 to 9.7% in 2015. When stratified by age, stark differences in FIB-4 are noted (F3-F4 fibrosis in 10.5% vs. 23.5% in 2010 and 7.1% vs. 24.1% in 2015).

Conclusion: Homeless individuals with HCV in Boston are younger and have lower rates of cirrhosis than an older national housed sample using APRI, but examining BHCHP subgroups using the FIB-4 illuminates significant differences in advanced fibrosis as well as demography and comorbidity between the baby-boomer group and younger individuals with HCV, reflecting shifting dynamics of the HCV and opioid epidemics.

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