

Demographic and Socioeconomic Differences Among Hepatitis C Patients Seen in Community and Specialist Outpatient Care Settings in New Brunswick, Canada



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Background

In the province of New Brunswick, Canada, Hepatitis C Virus (HCV) care is provided in both community-based care settings (CC) and specialist-based care (SC) settings. It is known that patterns of high-risk behaviours and comorbidities vary in different care settings (1, 2) but little is known about the differences between the populations seen in each of these settings. Understanding these patterns is important in order to provide effective and efficient patient-centered care. The Hepatitis C Positive and At-Risk (HEAR) database captures information on these populations, and the current study utilizes this data to assist in answering the following questions:

- i. What are the demographics of those seen in a CC setting as compared to the SC setting?
- ii. What are the differences in risk behaviours related to HCV acquisition between the CC and SC populations?
- iii. What are the substance use patterns of those patients seen in a CC setting as compared to the SC setting?

Methods

All non-incarcerated patients (N=526) attending four specialist office-based clinics and one community-based clinic in three communities in New Brunswick who were enrolled in the HEAR database between April 1, 2014 and April 30, 2016 were included in this study. Any patient who was incarcerated at the time of intake was excluded due to their unique characteristics which may have impacted the captured data in this particular study.

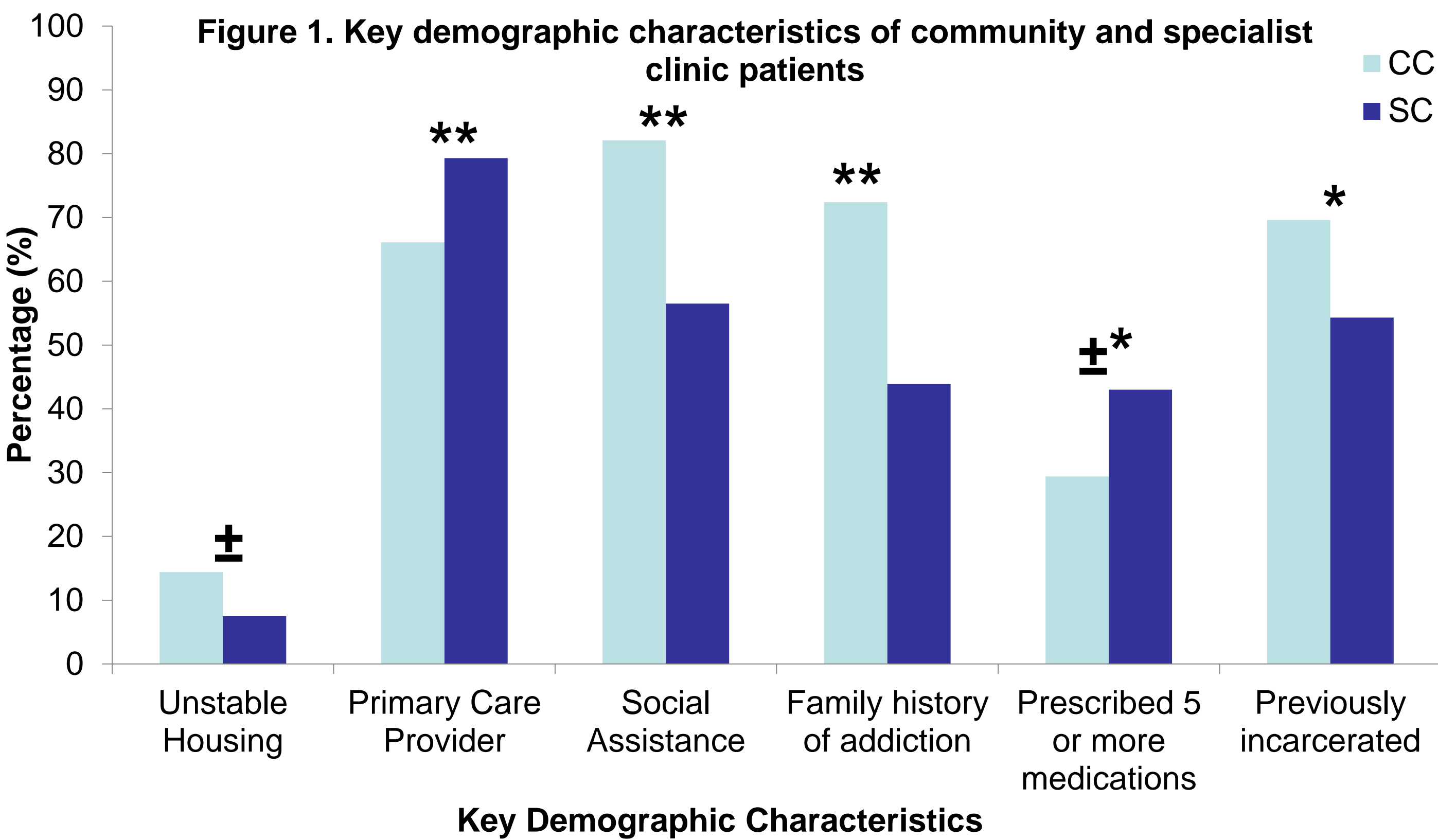
Univariate comparisons of CC and SC patients were conducted using chi-square or Fisher's exact tests (in the case of categories with an n < 10) for nominal variables. Mann-Whitney or analysis of variance (ANOVA) was used for ordinal or interval data for non-normally and normally distributed data, respectively. Statistical significance was defined as p < 0.05.

Key Findings

- CC patients were more likely to:
 - Report living in unstable housing settings (almost double the proportion of individuals), although this was not statistically significant
 - Report a family history of addiction
 - Report sharing drug paraphernalia
 - Report more recent drug use within the last 12 months
- CC patients were less likely to report having a primary care provider.
- CC patients had lowest mean age of first use, found to be statistically significant for cocaine and opioid use.

Results

i. WHAT ARE THE DEMOGRAPHICS OF THOSE SEEN IN A CC SETTING AS COMPARED TO THE SC SETTING?



± Denotes data missing for 10-20% of expected sample. * Denotes statistical significance p<0.05. ** Denotes statistical significance p<0.001

ii. WHAT ARE THE DIFFERENCES IN RISK BEHAVIOURS RELATED TO HCV ACQUISITION BETWEEN THE CC AND SC POPULATIONS?

Table 1. HCV-related patient-reported risk factors in community versus specialist clinic patients

	CC (N=130)	SC (N=244)	P-VALUE
% REPORTING PAST/CURRENT HIGH RISK SEXUAL BEHAVIOURS ^{1,2}	45.4	39.9	0.404
% WITH TATTOOS OBTAINED IN HIGH RISK SETTINGS (E.G. JAIL, FRIEND)	50.8	41.6	0.113
% WITH REPORTED SHARING OF DRUG PARAPHERNALIA	75.2	62.4	0.025
% WHO HAVE SNORTED DRUGS IN THE PAST 12 MONTHS	51.2	26.4	0.001
% WHO HAVE INJECTED DRUGS IN THE PAST 12 MONTHS	52.0	25.9	<0.001
% WITH BLOOD TRANSFUSION(S) PRIOR TO 1991	16.4	10.2	0.140

¹ Data missing for 10-20% of expected sample
² High risk sexual behaviours defined as exchange of sex for drugs or money, multiple partners, and unprotected sex with an individual of unknown HCV status

iii. WHAT ARE THE SUBSTANCE USE PATTERNS OF THOSE PATIENTS SEEN IN A CC SETTING AS COMPARED TO THE SC SETTING?

Table 2. Substance use among community versus specialist clinic patients.

	CC (N=130)	SC (N=244)	P-VALUE
ALCOHOL			
EVER USED (%)	91.0	95.6	0.103
MEAN AGE AT FIRST USE (YEARS)	13.6	14.7	0.044
CURRENT USER (%)	58.7	45.8	0.038
MARIJUANA			
EVER USED (%)	89.8	85.3	0.256
MEAN AGE AT FIRST USE (YEARS)	14.6	15.8	0.040
CURRENT USER (%)	68.9	44.8	<0.001
BENZODIAZEPINES			
EVER USED (%)	38.5	39.9	0.808
MEAN AGE AT FIRST USE (YEARS)	22.9	23.6	0.503
CURRENT USER (%)	46.5	23.4	0.020
COCAINE			
EVER USED (%)	87.6	77.3	0.024
MEAN AGE AT FIRST USE (YEARS)	22.1	25.0	0.565
CURRENT USER (%)	40.2	20.2	0.001
OPIOIDS			
EVER USED (%)	80.8	58.1	<0.001
MEAN AGE AT FIRST USE (YEARS)	23.9	26.5	0.036
CURRENT USER (%)	36.4	16.2	0.002

Discussion

Persons with unstable housing are often in poorer health and have higher health care and social service utilization than those with stable housing (3). Complications related to chronic HCV infection continue to increase in persons who inject drugs (PWID), imposing a significant burden of liver related morbidity and mortality (4). For many chronic health conditions, access to a primary care physician is associated with improved health outcomes and reduced hospital admissions (5, 6).

Community-based HCV programming can improve treatment access in underserved areas that have a greater need for screening and treatment, particularly in areas where HCV infections tend to cluster geographically (7). In areas where community clinics do not exist, individuals from high risk groups may either not be receiving a referral or fail to present for appointments due to physical and/or psychological barriers in the access of the specialist offices.

Conclusion

This study reveals differences between two groups of patients with chronic HCV and identifies areas of need, which must be addressed among both groups, in order to meet the World Health Organization's goal of eliminating HCV by 2030.

References

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