

Determining the Prevalence of Hepatitis C Infection at a Primary Health Care Centre in Kelowna

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Background

- It is estimated that approximately 0.8% of Canadians are infected with hepatitis C virus (HCV).
- Of those infected, 60% of cases are found in persons who currently or have formerly used illicit drugs.
- Traditionally illicit drug users have been excluded from treatment for HCV infection.
- There is emerging evidence that suggests persons who use illicit drugs can achieve similar response rates to therapy as non-users and that re-infection in the first year is low.
- Outreach Urban Health Centre (OUH) provides primary healthcare to the marginalized population of Kelowna, BC.
- It is estimated that a large proportion of the clients that utilize OUH are infected with HCV; the true prevalence is however unknown.

Definitions

- **Active user of illicit drugs:** Documented use of illicit drugs within the past 6 months
- **Former user of illicit drugs:** Person who previously used illicit drugs, has not used illicit drugs within the past 6 months
- **Non-user of illicit drugs:** Person has never used illicit drugs in their lifetime
- **Controlled psychiatric disease:** No hospitalization for psychiatric disease, suicide attempt, documented violent behavior, suicidal ideation, and no moderate-severe symptoms of disease in the past 6 months
- **Misuse of alcohol:** Documentation in the chart by a healthcare professional that mentions alcohol abuse, misuse, or alcoholism
- **Up-to-date vaccine status:** Client has received entire series of vaccine or has started series but not yet completed
- **Routine blood work:** Documentation of the following tests in the medical record at least once post positive HCV RNA result: AST, ALT, GGT, ALP, INR, bilirubin, albumin, AFP, SCr, CBC
- **Decreased adherence:** chronically homeless, alcohol use, drug use and/or unstable psychiatric health

Objective

To determine the percentage of OUH clients that are infected with HCV

Methods

Design:

- Retrospective chart review
- 200 clients who are ≥ 19 years of age and accessed medical services at OUH > 10 times in the 2011 calendar year were included

Primary Outcomes:

- Percent of clients at OUH that are anti-HCV positive
- Percent of clients at OUH that are HCV RNA positive

Secondary Outcomes:

- Percent of at risk individuals being tested for HCV infection
- Percent of at risk individuals with negative HCV results being re-tested annually
- Percent of HCV RNA positive females that are within child-bearing age (15 – 49 years old)
- Percent of HCV RNA positive clients that are:
 - At risk for decreased adherence
 - Co-infected with HIV and/or hepatitis B
 - Receiving recommended routine blood work annually
- Percent of HCV RNA positive clients that have:
 - Had a baseline liver ultrasound
 - An up-to-date vaccine status
 - Had genotype testing done
 - Received screening for tuberculosis
 - Received screening for syphilis

Statistical Analysis:

- Descriptive statistics

Limitations

- Retrospective chart review
- Since there are many complexities and expertise required when deciding feasibility, it is out of the scope of this study to determine if it is feasible to establish a HCV treatment program at OUH

Results

- 198 patients were included in this chart review

Primary Outcomes		
	n	%
Anti-HCV positive clients	61	31
HCV RNA positive clients	42	21
Secondary Outcomes		
Clients with documented risk factors being screened for HCV infection (n = 136)	119	88
HCV negative clients being re-screened annually (n = 156)	33	21
HCV RNA positive clients (n=42)		
Females within child-bearing age (n = 16)	12	75
Clients with at least one risk factor for decreased adherence	41	98
Clients co-infected with HIV	14	33
Clients co-infected with Hepatitis B	0	0
Clients receiving recommended routine blood work annually	33	79
Clients that have had a baseline liver ultrasound	29	69
All vaccines up-to-date	4	10
Genotype testing done	23	55
TB screening performed	26	62
Syphilis screening performed	34	81

Figure 1: Anti-HCV status of OUH clients

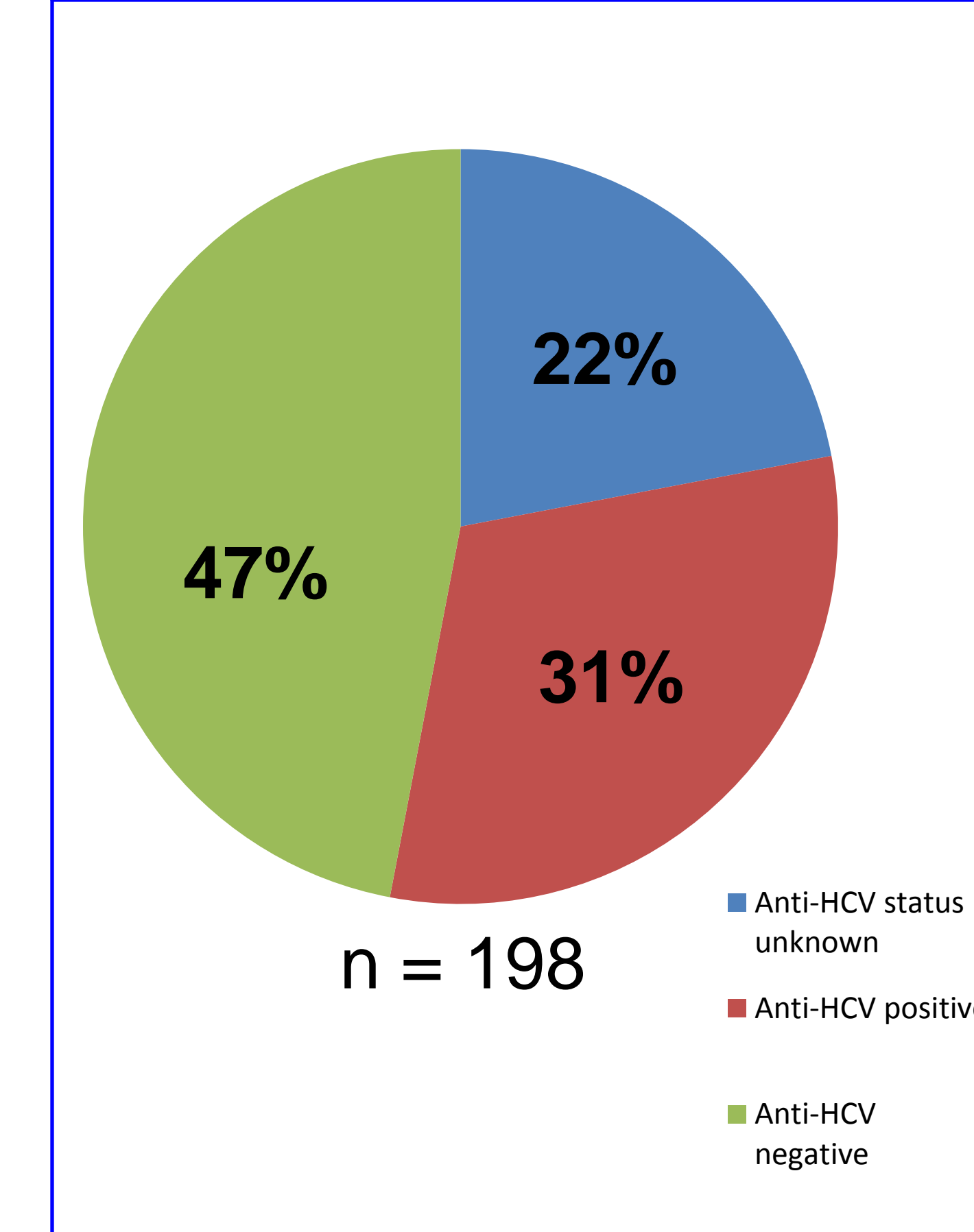
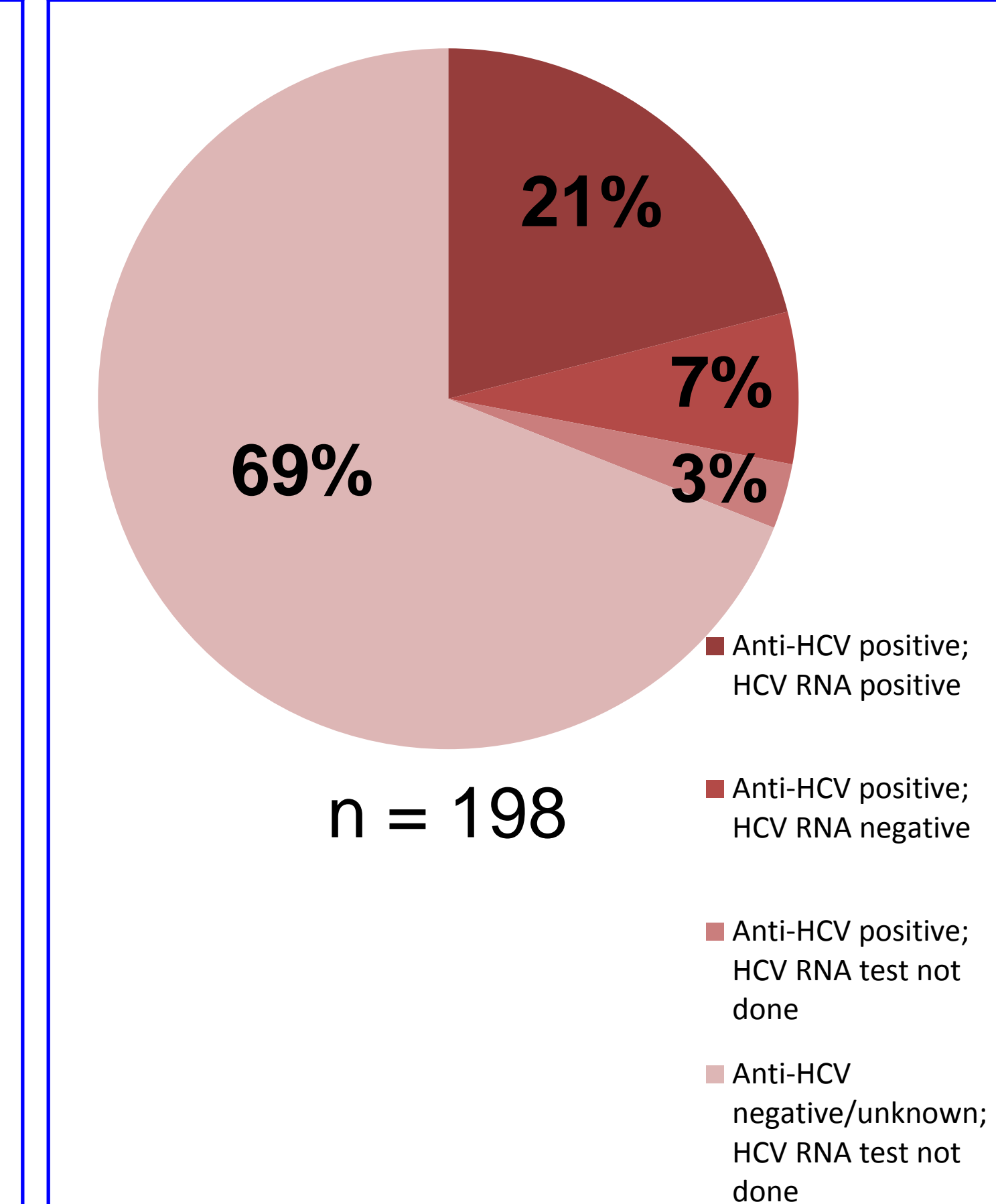


Figure 2: HCV RNA status of OUH clients



Conclusions

- Given that 21% of clients at OUH are infected with HCV, a feasibility study should be undertaken to see if a treatment program for HCV infection can be established at OUH.
- Recommendations to improve screening of at risk individuals for HCV infection will be provided to OUH.

