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# Promoting Awareness of Hepatitis C in Burlington, Vermont's Homeless Population

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# Promoting Awareness of Hepatitis C in Burlington, Vermont's Homeless Population

COMMUNITY HEALTH CENTER, SAFE HARBOR CLINIC  
BURLINGTON, VT

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FAMILY MEDICINE CLERKSHIP

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# Problem Identification and Description of Need

2a

- ▶ Hepatitis C virus (HCV) infection is the most common blood-borne infection in the United States, with approximately 3 million persons living with current infection, as estimated by the CDC via the NHANES (1). However, that number is estimated to be as high as 5.2 million, accounting for HCV+ veterans, homeless and incarcerated persons, as the NHANES sampled only the civilian, non-institutionalized population of USA and may have underestimated the prevalence of HCV in this country (2).
- ▶ Seventy-five percent of people in the U.S. with Hepatitis C are unaware they are infected (3). It is a chronic disease that can cause severe liver disease despite being asymptomatic for decades.
- ▶ “Baby Boomers” born during 1945–1965 have a fivefold higher risk of HCV infection than other adults and the highest risk for HCV-related morbidity and mortality (4).
- ▶ Treatments for HCV are curative, of short duration, and have few associated side effects, increasing the importance of identifying HCV-infected persons.

# Problem Identification and Description of Need Cont.

2b

- ▶ Factors independently associated with HCV infection are history of incarceration, history of homelessness, and substance use/abuse (5).
- ▶ Only 1% (0.8%–1.2%) of the general U.S. population is estimated to be infected with HCV (1), but prevalence in homeless populations is significantly higher.
- ▶ An estimated 12,000 people are living with hepatitis C in Vermont. There are 192,504 Vermonters born from 1945 to 1965 who should consider testing solely due to their birth cohort (6).
- ▶ In January 2015, Vermont had 1,523 homeless persons. Of those, 422 have a history of chronic substance abuse (7).
- ▶ Though we don't have numbers for the prevalence of HCV in the homeless population of Vermont state or Burlington city, clinicians who care for the local homeless population know that Hep C rates are high and homeless patients are likely severely underdiagnosed and undertreated.

# Public Health Cost and Unique Considerations in the Homeless Community

- ▶ Chronic Hepatitis C infection is the leading cause of cirrhosis and liver cancer and the most common reason for liver transplantation in the United States (4).
- ▶ Approximately 15,000 people die every year from Hepatitis C related liver disease (4).
- ▶ In 2013 the total cost of Hepatitis C burden in the U.S. was estimated at \$6.5 (\$4.3-\$8.4) billion and it is expected to peak in 2024 at \$9.1 (\$6.4-\$13.3) billion (8).
- ▶ The lifetime cost of an individual infected with HCV in 2011 was estimated at \$64,490 (8).
- ▶ Patients experiencing decompensated cirrhosis accounted for the majority of future costs (8).
- ▶ This cost is likely significantly underestimated given that national surveys such as the NHANES through the CDC from which cost estimates are calculated don't include homeless or institutionalized persons. The prevalence of Hep C in the general population is significantly lower than rates found in studies in homeless populations. A study of 884 homeless adults in Los Angeles revealed that 22% were infected with HCV (9). In another study, in a population of 597 homeless veterans the overall prevalence was 41.7% (10).

# Community Perspective: Safe Harbor Clinicians

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Key points from my interviews with Liz Fehrenbach, RN, BSN, Homeless Healthcare Program Nurse and Kerry Goulette, PA at Safe Harbor Health Clinic:

- ▶ “There’s lots of Hep C here. Sometimes it seems as though we test every single person who walks in the door.”
- ▶ “Patient awareness of Hep C is really low. Many patients are not symptomatic. Acute Hep C is rare, so most of the people go undetected.”
- ▶ “They could have gotten it decades ago and not know.”
- ▶ “Incarceration (tattoos, rape) and substance abuse are big risk factors in our homeless patients.”
- ▶ “Intranasal cocaine use is the route of infection that always surprises people. They don’t realize that they can get Hep C from snorting cocaine through a tube that someone infected with Hep C has used. The coke makes the nasal mucosa inflamed and friable and it’s actually a very high risk of transmission.”
- ▶ “One problem in identifying Hep C in our patients is when their basic health maintenance labs come in with elevated liver function tests, it can be written off as due to their drinking and the Hep C is missed if it’s not tested for.”
- ▶ “Now that there’s Harvoni, it could be a motivator for people to get sober, since you can’t qualify for Hep C treatment if you’re drinking.”

# Intervention and Methodology

- ▶ A poster was chosen as the best way to deliver the information promoting awareness of Hep C and testing to the Safe Harbor Homeless Clinic community.
- ▶ The clinic is a walk-in clinic, so patients usually spend time in the waiting room, providing a perfect opportunity for the poster to be seen.
- ▶ The objective of the poster is to encourage patients to get tested, thus the optimal time for them to see it is in the waiting room or exam room, right before they see the clinician.
- ▶ A take-home pamphlet or resource would not be appropriate for the homeless population. The best way to deliver the information is at the clinic.
- ▶ The poster needed to be appealing to the eye so people would read it. Also, it had to be clearly written and written so that people with a low reading level can read it.
- ▶ It was most important to the Safe Harbor clinicians that the poster addressed the statistic that most people with Hep C aren't aware that they have it and to inform patients that testing involves a just simple blood test that they can request at their visit that day.
- ▶ It was also important to address methods of Hep C infection that are less well known, such as intranasal cocaine, the risks associated with chronic infection, and that we now have a drug, Harvoni, that can cure it.
- ▶ The poster was made digitally in Microsoft PowerPoint, printed on 8.5"x11" inch paper, and posted in the Safe Harbor Clinic waiting room and exam rooms.

# Results: Poster

## YOU MIGHT NOT KNOW IF YOU HAVE HEP C



GET TESTED NOW

UP TO **75%** OF PEOPLE WITH HEP C  
DON'T KNOW THEY ARE INFECTED\*

YOU COULD HAVE IT FOR **20 OR 30 YEARS**  
AND NEVER HAVE SYMPTOMS

A simple blood test can show if you have Hep C. Ask your doctor about it today.



**DID YOU KNOW**  
you can get **Hep C**  
from **cocaine** use  
(even without a needle!)  
Some other risk factors are  
**blood transfusions**  
and **IV drug use**



**BORN BETWEEN**  
**1945-1965?**  
**GET TESTED!**




**"Baby Boomers"**  
are **5X MORE LIKELY**  
to be infected\*

If left untreated **HepC**  
can cause: **LIVER**  
**DAMAGE**  
**CANCER**  
**FAILURE**



**HEPATITIS**  
**CURED**  
Ask about the new  
drug that can  
cure Hep C!



\*Data from CDC.gov. For more info visit [cdc.gov](http://cdc.gov) or [healthvermont.gov](http://healthvermont.gov)



# Effectiveness and Limitations

- ▶ The poster was met with good response from Liz Fehrenbach, Homeless Healthcare Program Nurse and Lincoln Heath, MD at Safe Harbor. They found it to be eye-catching and a good presentation of important information in a clear way.
- ▶ Effectiveness of the poster in raising awareness of Hep C in the clinic population would be difficult to measure precisely. Though limited, some ways it could be evaluated subjectively in the future is by polling the clinicians after the posters have been up for a number of months and asking them if they think they have gotten more questions about Hep C and requests for testing from the patients since implementation of the poster.
- ▶ Another possible measure of change would be to look at the number of Hep C antibody tests that have been ordered in the 6 months following introduction of the poster compared to the 6 months prior. This wouldn't enable us to differentiate whether the change (if any) is due to increased patient awareness, or increased clinician awareness/test ordering patterns due to clinicians being reminded by the posters to screen for Hep C risk factors when taking a social history.
- ▶ Other limitations include the short timeframe, the frequent turnover of the clinic population due to the nature of it being a homeless clinic, and the method of intervention being a poster, given that the target population has a higher degree of illiteracy than the general population.

# Future Directions

- ▶ An easy initial step would be to put up the posters in more locations other than just Safe Harbor clinic, such as local homeless shelters and food shelves.
- ▶ A great way in the future to increase Hep C testing so patients know their status in addition to attempting to increase patient awareness would be to simultaneously approach it from the clinicians' side.
- ▶ Given that the clinic is run by just a small handful of clinicians, they have the advantage of communicating directly with one another and providing great continuity of care. Also, with fewer people involved, they can make procedural and protocol changes that meet everyone's needs more easily.
- ▶ One possibility is adding the question "Have you ever been tested for Hepatitis C? If so, when?" to the intake form for everyone.
- ▶ Currently, prompting for Hep C testing is reliant solely on patient initiative and the clinician remembering to ask based on the patients' social history. Another possibility is to enable a flagging system in the EHR to automatically prompt testing for everyone with a date of birth from 1945-1965 or with drug use in their social history or problem list.

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