

High Burden of Concurrent Mental Health and Substance Use Disorders Contribute to Gaps in the Hepatitis B Care Cascade among Underserved U.S. Veterans

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BACKGROUND

- Gaps in the chronic hepatitis B (CHB) care cascade contribute to delayed diagnosis, disparities in linkage to care, and missed opportunities for hepatocellular carcinoma (HCC) surveillance.
- High prevalence of mental health (MH) and substance use disorders (SUD) among US Veterans may exacerbate existing disparities in CHB care among this underserved cohort.

AIM

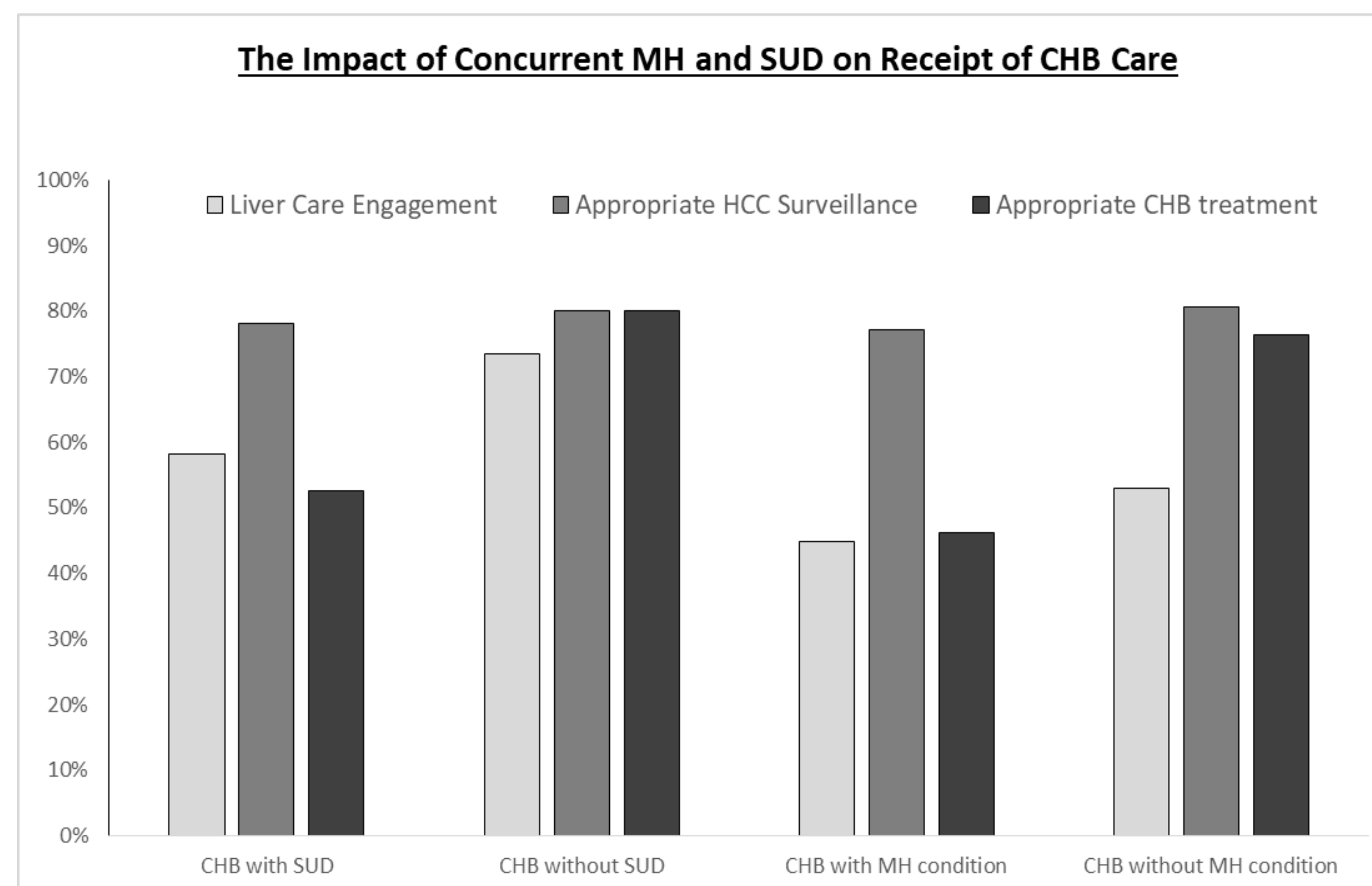
- We aim to evaluate the impact of concurrent MH and SUD on receipt of CHB care among Veterans with CHB.

METHODS

- CHB patients were identified at a single Veterans Affairs Healthcare System facility through review of clinical laboratory data
- CHB was defined by ≥ 2 positive hepatitis B surface antigen tests >6 months apart.
- Manual chart review of the electronic health records was performed to evaluate:
 - Liver care engagement: at least 1 visit/year with liver clinic
 - CHB treatment among eligible patients based on AASLD criteria
 - HCC surveillance among appropriate CHB patients
- Presence of MH or SUD diagnoses were identified based on manual chart review
- Chi-square testing was performed to compare differences with liver care engagement, CHB treatment, and HCC surveillance between groups
- Adjusted multivariate logistic regression models evaluated for predictors of liver care engagement, CHB treatment, and HCC surveillance.
- Additional qualitative assessments were performed to understand patient reported barriers in receiving CHB care.

Table 1. Characteristics of CHB Cohort

Variables	Proportion (%)	Frequency (N)
Sex		
Female	11.1%	12
Male	88.9%	96
Age (mean \pm SD)	59.9 \pm 14.7	
Race/Ethnicity		
Non-Hispanic White	27.1%	29
African American	9.4%	10
Asian/Pacific Islander	50.5%	54
Hispanic	8.4%	9
Other	4.7%	5
Alcohol history		
None	32.1%	34
Past	15.1%	16
Current	52.8%	56
Tobacco history		
None	50.5%	51
Past	18.8%	19
Current	30.7%	31
Drug Use history		
None	75.0%	66
Past/Current	25.0%	22
Active Mental Health Condition		
	47.2%	51
Any Active Substance Use		
	66.3%	67



RESULTS

- Among 108 CHB patients (89% men; mean age 60y; 51% Asian, 27% non-Hispanic White, 9% African American, 8% Hispanic; 15% cirrhosis), 47% had MH conditions and 66% had SUD.
- Overall, 62% were engaged into liver care, 79% received guideline-concordant HCC surveillance, and 63% of treatment-eligible patients were on CHB therapy.
- CHB patients with SUD had lower engagement with liver care (58% vs. 74% in those without SUD) and lower rates of CHB treatment (52% vs. 80%), but no difference in HCC surveillance.
- CHB patients with MH conditions had lower rates of CHB treatment (46% vs. 76% in those without MH), but similar rates of liver care engagement and HCC surveillance.
- On multivariable regression, race/ethnicity was strongly associated with receiving comprehensive CHB care (i.e., liver care engagement, HCC surveillance, and CHB therapy), with Asians more likely to meet all CHB care parameters compared to non-Hispanic whites (OR 4.45, 95% CI 1.49-13.31).
- On qualitative assessment, most common barriers to CHB care reported by patients involved unstable housing, transportation challenges, and lack of awareness about CHB diagnosis.

Table 2. Barriers Identified Potentially Impacting CHB Care

Barriers to CHB Care Identified
Treatment Related Barriers
Declined HBV treatment due to costs
Declined treatment and requested continued monitoring due to lack of symptoms
Declined treatment for unclear reasons
Treatment and Monitoring Related Barriers
Unstable housing situation
Homelessness
Delays in follow-up and monitoring due to COVID-19 related concerns and fear
Deployed into service and lost to follow up
Education and Awareness Barriers
Never told about diagnosis of HBV until developed liver cancer
Not aware of chronic HBV diagnosis
Lack of knowledge of HBV diagnosis and importance of treatment
Confused about diagnosis - thought he had blood type B rather than hepatitis B

DISCUSSION

- Among an underserved cohort of US Veterans with CHB, high prevalence of MH and SUD were observed, which potentially contributed to gaps in CHB care, particularly appropriate antiviral therapy.
- Efforts to improve the CHB care cascade must comprehensively address the complex psychosocial factors that further exacerbate existing disparities in CHB care.

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