# DDW 2024

# View Abstract

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# Abstract

TITLE: RURALITY OF RESIDENCE AND DISPARITY IN INCIDENT HEPATOCELLULAR CARCINOMA AMONG VIETNAM WAR VETERANS

**AUTHORS (LAST NAME, FIRST NAME):** <u>Pham, Nguyen V.</u><sup>1</sup>; Leng, Mei<sup>5</sup>; Han, Steven-Huy<sup>2, 3</sup>; May, Folasade P.<sup>2, 3, 4</sup>; Benhammou, Jihane N.<sup>1, 3, 4</sup>

**INSTITUTIONS (ALL):** 1. University of California Los Angeles Department of Medicine, Los Angeles, CA, United States.

2. University of California Los Angeles Division of Digestive Diseases, Los Angeles, CA, United States.

3. VA Greater Los Angeles Healthcare System, Los Angeles, CA, United States.

4. University of California Los Angeles Jonsson Comprehensive Cancer Center, Los Angeles, CA, United States.

5. University of California Los Angeles Department of Biomathematics, Los Angeles, CA, United States. **ABSTRACT BODY:** 

**Abstract Body: Introduction:** Hepatocellular carcinoma (HCC) is increasing in prevalence among Veterans. We have shown that Vietnam Veterans who self-identified as Hispanic and non-Hispanic Black were more likely to develop HCC, compared to non-Hispanic White Veterans. Identifying clinical and social determinants of health (SDOH) associated with HCC disparities has the potential to improve detection and treatment of HCC in vulnerable Veterans.

**Objective**: We aimed to investigate the relationship between rurality of residence and incident HCC by race and ethnicity.

**Design, Setting and Participants**: We conducted a retrospective cohort study of Vietnam Veterans (1966-1975) who were >=18 years old and had established care within Veterans Health Administration (VHA) between 2000-2019. Race and ethnicity were self-reported in the VHA. We extracted relevant clinical and socioeconomic data. Cirrhosis was defined by consecutive FIB-4 scores >3.25 and ICD codes. Association between incident HCC and rurality of residence was analyzed using multivariable Cox regression in Veterans with cirrhosis with death and liver transplantation as competing events. Rural areas were defined based on geospatial codes based on the Census Bureau definitions and Rural Urban Commuting Area (RUCA) Classification.

**Result**: Of the 296,505 eligible Veterans, 15,543 were Hispanic (5.4%), 43,849 were non-Hispanic Black (15.2%) and 210,758 were non-Hispanic White (73.0%). Among Veterans with cirrhosis, 2,325 (6.6%) were Hispanic, 7,031 (19.9%) were non-Hispanic Black, and 23,807 (67.3%) were non-Hispanic White. Hispanic (n=3,299, 21.3%) and non-Hispanic Black Veterans (n=9,197, 21.0%) were less likely to live in rural areas compared to non-Hispanic White (n=94,638, 45.1%). Among Veterans with HCC, non-Hispanic White individuals were more likely to live in rural areas (n=657, 40.6%), compared to non-Hispanic Black (n=100, 17.1%) and Hispanic (n=49, 19.8%) individuals. After adjusting for rurality of residence, age, clinical characteristics and etiologies of cirrhosis, Hispanic and non-Hispanic Black Veterans had higher risk of HCC (adj.HR=1.48, Cl 95% 1.27-1.73, and adj.HR=1.18, Cl 95% 1.05-1.32, respectively).

Conclusion: In this large cohort of Vietnam Veterans, Hispanic or non-Hispanic Black Veterans with cirrhosis

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had significantly higher risk of incident HCC. Living in rural areas was not significantly associated with risk of HCC when controlling for race, ethnicity, and other HCC related factors. The association between residence and other SDOH in HCC development is being explored to understand these observations.

Characteristic	Einheeis (n + 35.5NE)	
	Multivariable and (HPS Cit	Postu
Sunaity of Residence <sup>24</sup>	6.43 (0.87-1.06)	6.957
Age (at year 2000)	6393637434	-0.001
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Nov-Haparis IllaA	00(06-03)	£.005
Snorrg	107(038-137)	6.9/2
Ethanal UserAdoted Liver Decose	135 (172-139)	-6.09
Obesity	6.92 (0.85 1.07)	6.279
×1/	6.54 (0.86-1.00)	6,313
Autommune tepette	1.08(0.03)-1.41)	6.502
Secondary or unspecific billery cirritesia	1.24 (0.04-1.01)	6,279
wanadvonatoes	1.01 (1.07-1.02)	8.018
Alpha-1-anhi trypein	111(030-134)	6,279
MASLO MASH*	1991179418	-0.09
Other Liver Diseases	135(120+15)	-0.091
Portal Hyperionalan	2.7912.45-2.001	-0.091
Dysipitenia	6.48 (0.43-0.54)	-0.091
Vital Hepotton	1.17 (2.95-1.95)	-0.091
Substan*	1003030128	6.277
Ingenteration	417(138437)	6.648

# DISCLOSURE

The following authors have completed their 2024 DDW disclosure: Nguyen Pham: Disclosure completed | Mei Leng: No Answer. | Steven-Huy Han: No Answer. | Folasade May: No Answer. | Jihane Benhammou: No Answer.



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