

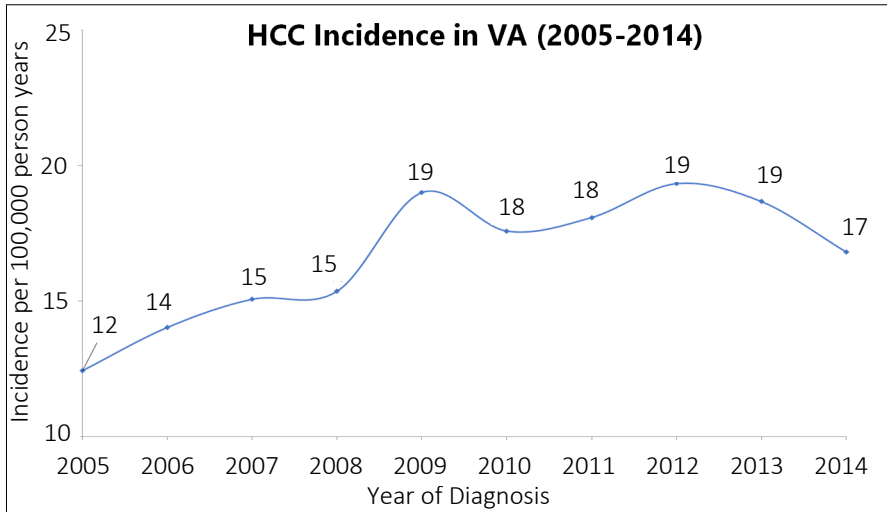
Hepatocellular Carcinoma

May 2019

Fact Sheet: Data on Veterans Using VA Health Care

CSPEAR provides timely epidemiologic information on VA health care users. This fact sheet presents summary data to inform a broad community of VA leaders, investigators, and clinicians as they consider how best to address the needs of Veterans.

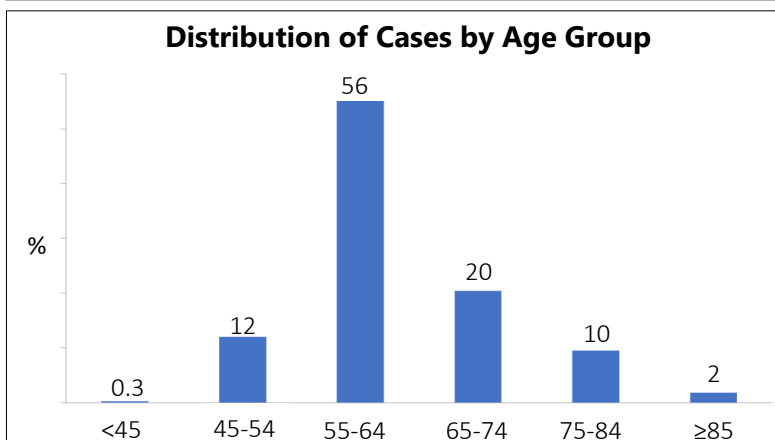
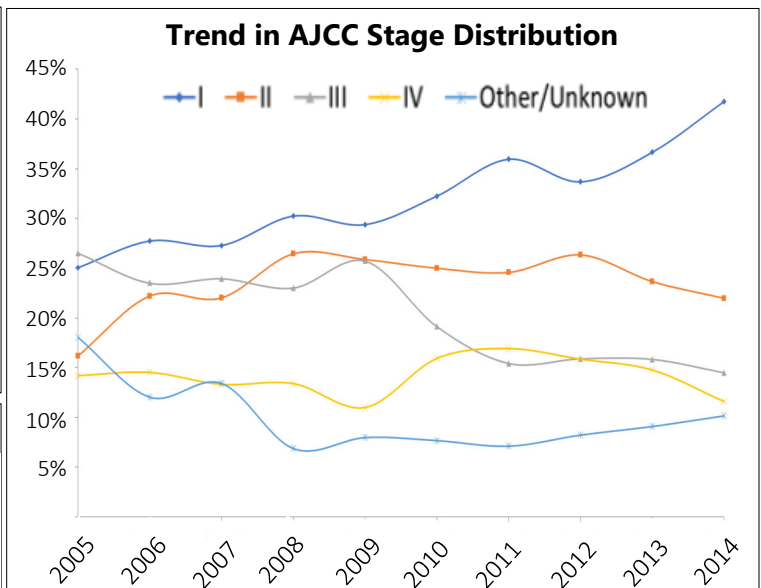
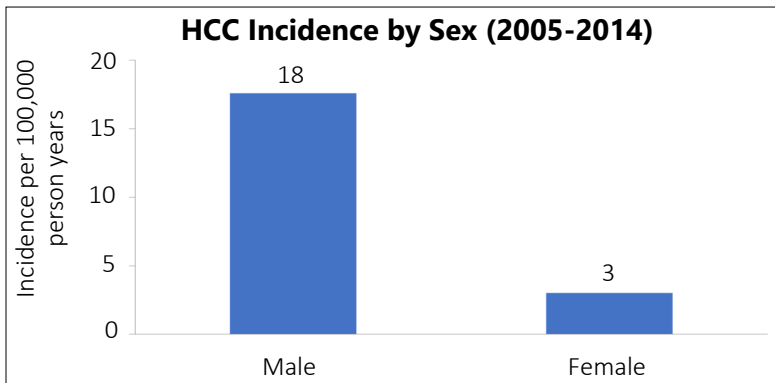
Introduction: Hepatocellular Carcinoma (HCC) is the most common form of liver cancer in adults, accounting for >70% of all liver cancers. Liver cancer is the fifth leading cause of US cancer deaths. The most common risk factor is chronic hepatitis B or C infection.¹



Fast Facts

Among patients receiving VA Health Care:

- Overall age-adjusted incidence FY2005-FY2014 is 17 per 100,000 person-years.
- HCC incidence in males (18/100,000) is much higher than females (3/100,000).
- HCC is most common among patients aged 55 to 64 years.
- Approximately one-third of early stage patients receive surgery.



Based on the American Joint Committee on Cancer (AJCC) stage classification, trend in stage distribution was: Stage I increased from 25% in 2005 to 42% in 2014. Stage II increased from 16% in 2005 to 22% in 2014. Stage III decreased from 27% in 2005 to 14% in 2014. Stage IV decreased from 14% in 2005 to 12% in 2014.

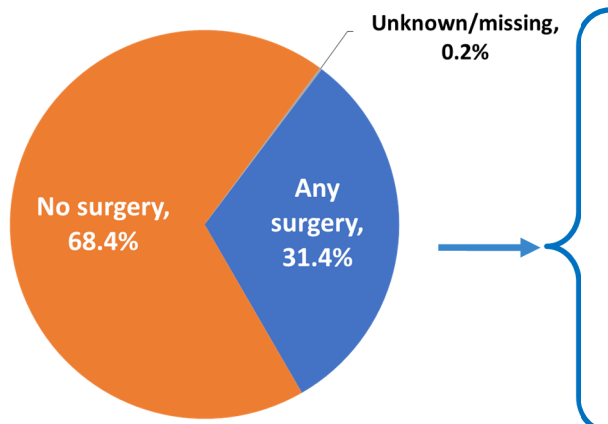
Visit CSPEAR's website or contact CSPEAR@va.gov for more information.

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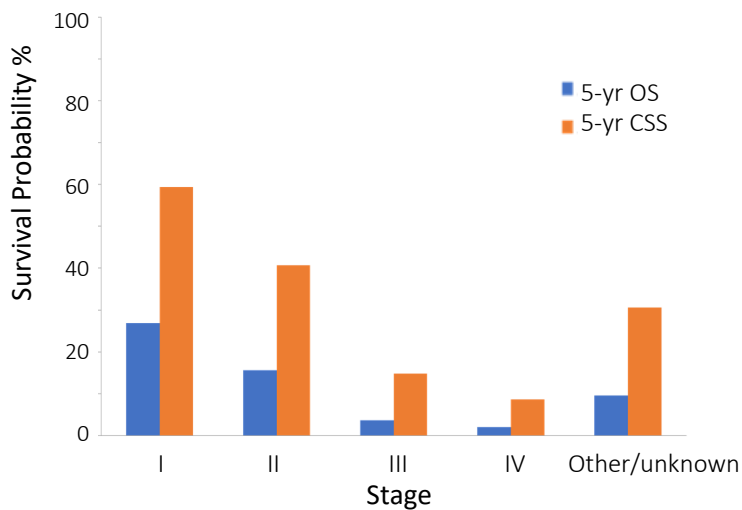
Receipt of Surgery among Patients with HCC AJCC stages I/II



Surgery type	Percent
Local tumor destruction	
RFA	52.3
Other	11.1
Wedge/segmental resection	22.3
Lobectomy	5.2
Hepatectomy only	2.1
Hepatectomy + transplant	6.4
Other surgery	0.5

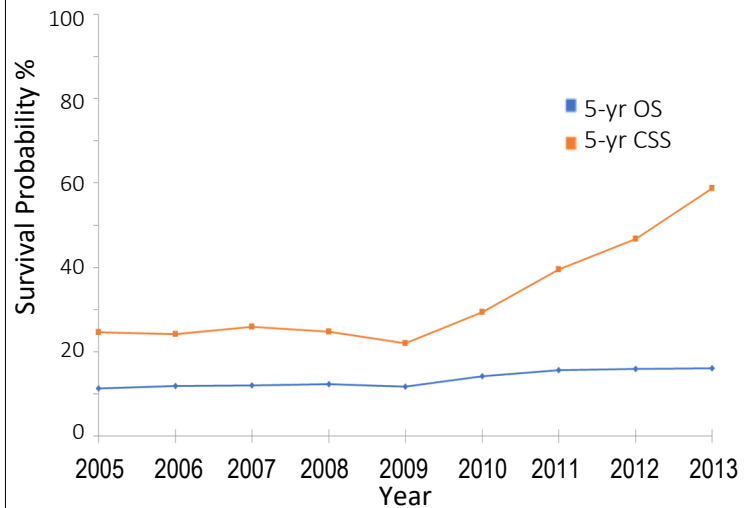
Approximately one-third of all HCC patients with stage I/II disease had surgical treatment. Of these, the most common surgery types were radio frequency ablation (RFA) and wedge/segmental resection.

5-year Overall Survival and Liver Cancer-Specific Survival by Stage



5-year overall survival (OS) was 15% and liver cancer-specific survival (CSS) was 45%. OS varied greatly by stage, from 59% for Stage I to 2% for Stage IV. Similarly, CSS varied from 27% for Stage I to 15% for Stage IV. NOTE: CSS is defined for all liver cancer, not HCC specifically.

Trend in 5-year Overall Survival and Liver Cancer-Specific Survival



Trends in 5-year overall survival for HCC increased slightly over this time period, from 11% in 2005 to 16% in 2013. There was a greater increase in 5-year liver cancer-specific survival over this time period, from 25% in 2005 to 59% in 2013. NOTE: CSS is defined for all liver cancer, not HCC specifically.

Summary of Data Sources and Analysis

Data were obtained from the VA Central Cancer Registry, which contains demographic, tumor and treatment characteristics for patients diagnosed and/or treated in the VA.² Liver cancer defined as ICD-O-3 C220, SEER site recode 21071. Vital status was obtained from the VA Corporate Data Warehouse. Overall survival was estimated using the Kaplan-Meier method. The age-adjusted incidence rate was calculated based on US 2010 adult population estimates and VA user population. The number of VA users (i.e., receipt of inpatient, outpatient, purchased, or pharmacy care or long-term services/support) in FY05-15 was obtained from the VA National Center for Veterans Analysis and Statistics.³

Notes: This work was conducted under the Epidemiology of Cancer among Veterans (EpiCAN) protocol (IRB: #2009). This material is the result of work supported with resources and the use of facilities at the VA Cooperative Studies Program Epidemiology Center in Durham, NC. The contents do not represent the views of VA or the US Government.

References

1. American Cancer Society. *What is Liver Cancer?* American Cancer Society. Atlanta, GA. 2019.
2. Zulling, L.L., et al. *Cancer Incidence Among Patients of the US Veterans Affairs Health Care System: 2010 Update.* Military Medicine. 2017; 182(7), e1883-e1891.
3. Office of Enterprise Integration. *Data Governance and Analytics.* US Department of Veterans Affairs. Accessed January 2019 at <https://www.va.gov/oei/about/data-governance-analytics.asp>

Visit www.research.va.gov/topics for information about VA research on [cancer](#) and other topics relating to Veterans' health.