

Liver and Intrahepatic Bile Duct Cancer

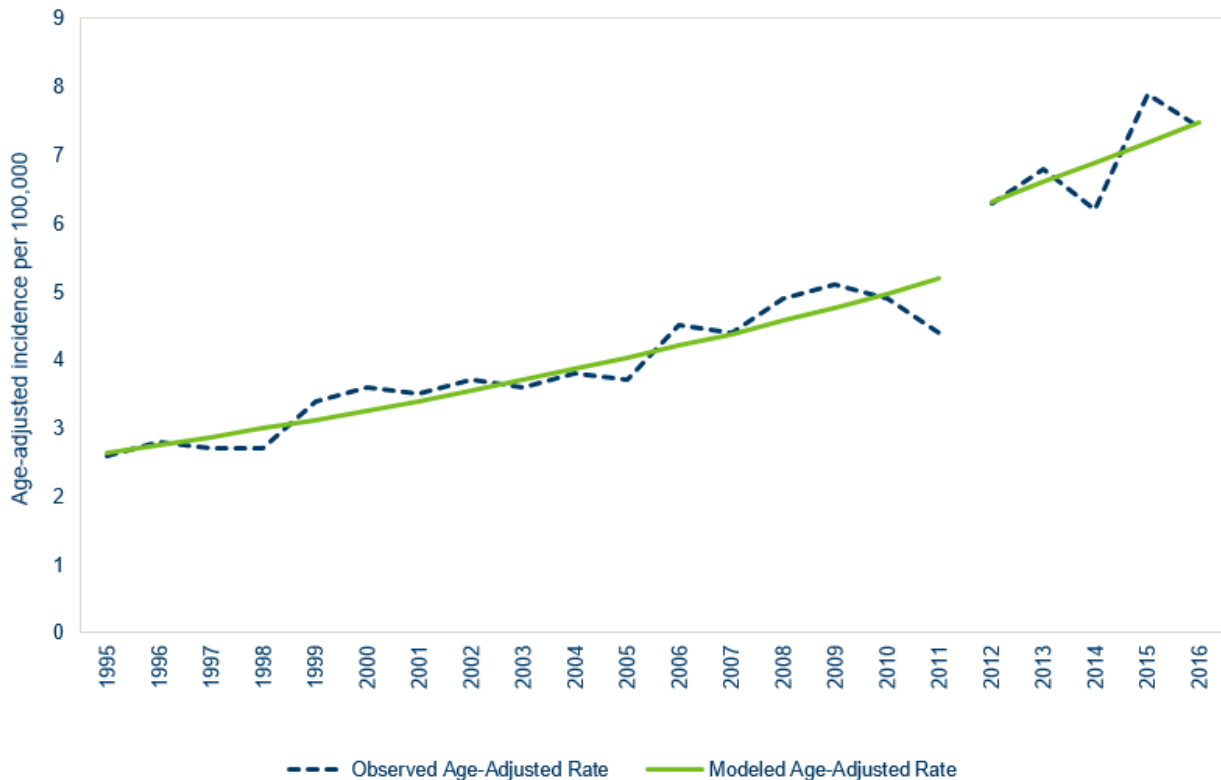
FACTS AND FIGURES - INCIDENCE AND MORTALITY IN MINNESOTA

The liver is one of the largest organs in the body, and liver cancer is one of the leading causes of cancer deaths in the world. Liver cancer is less common in the United States than other parts of the world, but incidence and mortality rates are increasing in the United States.¹ Ten to twenty percent of liver cancers arise in the intrahepatic bile ducts. These ducts carry bile from the liver to the gallbladder.² The most common type of liver cancer is hepatocellular carcinoma (HCC).³

Liver cancer incidence rates are increasing

The graph below shows that rate of newly diagnosed liver cancer has been increasing since 1995. The jump in the rate between 2011 and 2012 reflects a change in cancer reporting rules. Prior to 2012, all new cancers reported to the Minnesota Cancer Reporting System had to have tissue confirmation³. Beginning in 2012, the reporting rules expanded to include new cancer cases diagnosed without tissue confirmation. This change caused a jump in the number of new cases, but the rate at which newly diagnosed liver cancers are increasing remained nearly the same.

Liver cancer incidence has increased since 1995

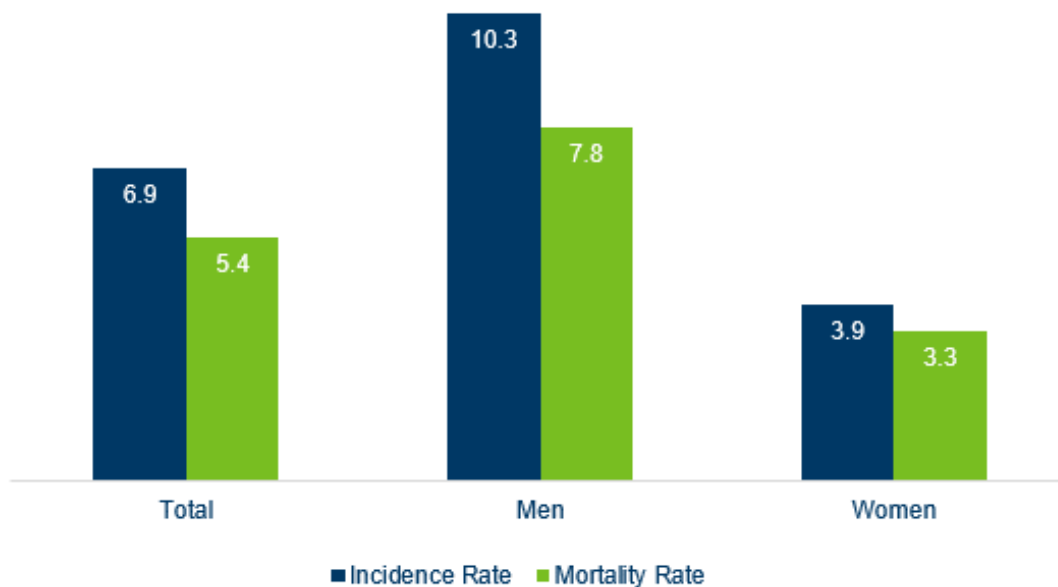


Liver cancer is more common in men than women

In 2012-2016, men were more than 2.5 times more likely to be diagnosed with liver cancer than women in Minnesota. Men were also nearly 2.5 times more likely to die from liver cancer than women. This is consistent with national and global rates. This difference between men and women may be related to other liver cancer risk factors.⁴

Liver cancer incidence and mortality is higher among men than women

Age-adjusted rates per 100,000 for 2012-2016



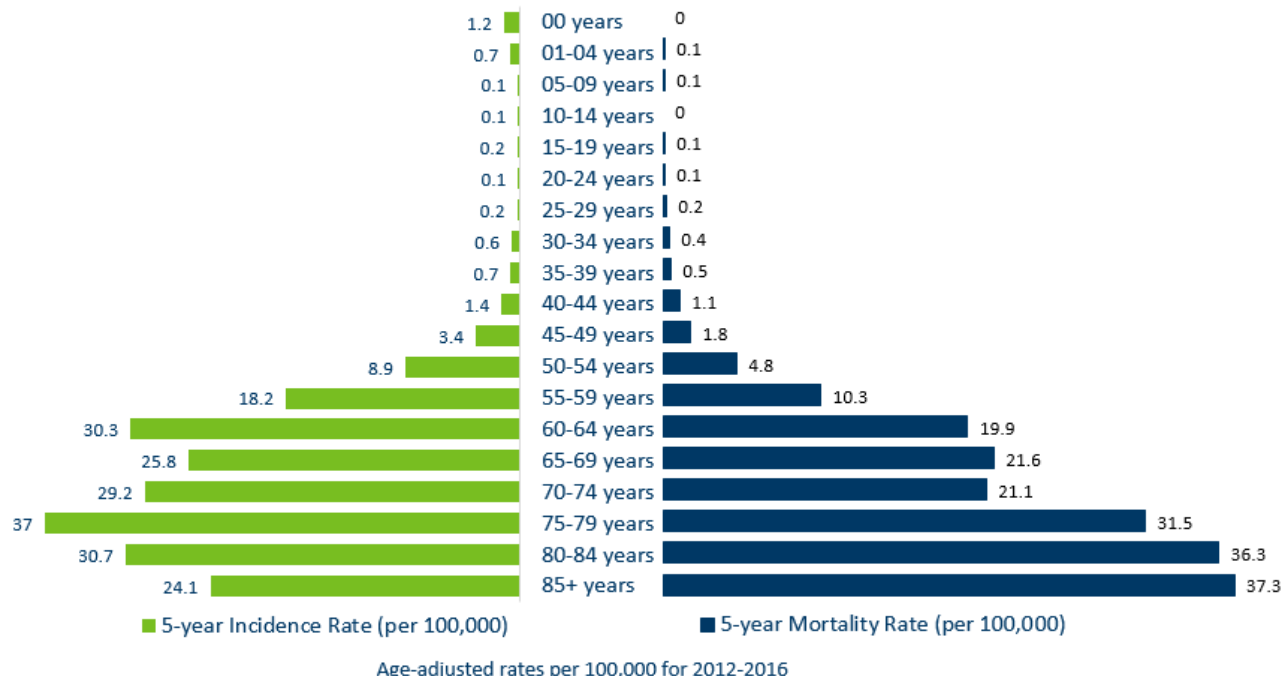
Liver cancer has a low survival rate

Nearly half (45%) of liver cancer cases in Minnesota are diagnosed at a late stage. Symptoms of liver cancer do not appear until the cancer has spread and this explains the large proportion of late stage diagnoses.⁵ Nearly 21% of Minnesota residents survived their liver cancer five years after their diagnosis; this is higher than the national five-year survival rate of 18%.⁶

Liver cancer incidence and mortality increases with age

Both incidence and mortality increases with age. Most liver cancer occurs in individuals over 50 years of age. Individuals 75-79 years of age have the highest incidence of liver cancer, and those above 85 years of age have the highest mortality rate.

Liver cancer incidence and mortality rates are highest among older Minnesotans



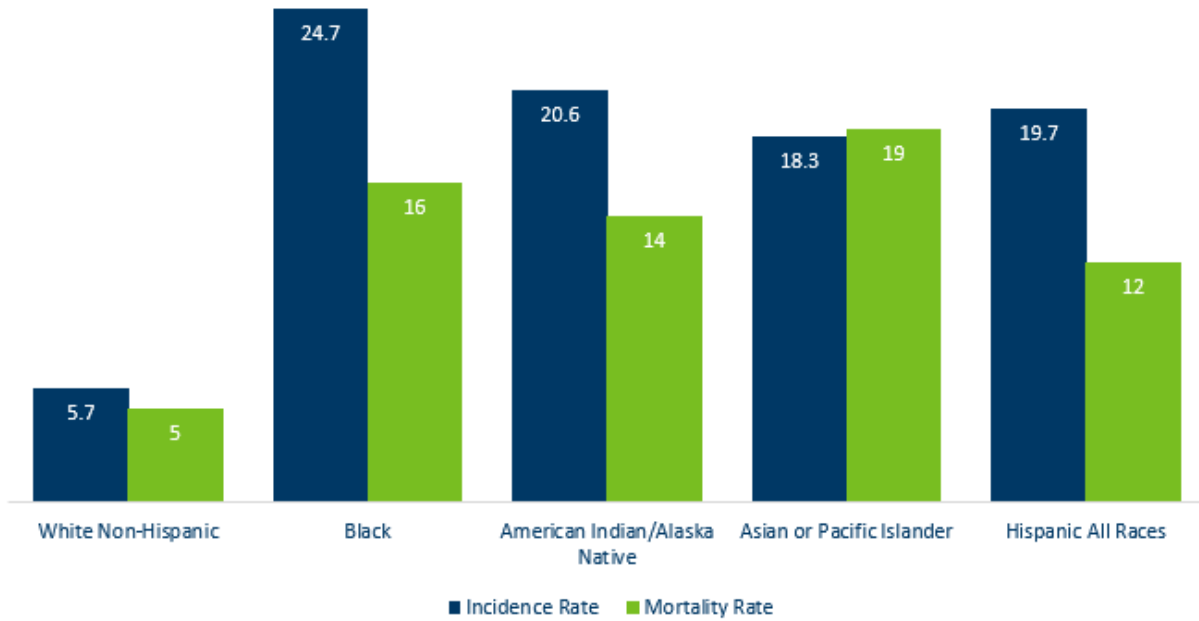
Liver cancer rates differ by race and ethnicity

In Minnesota, liver cancer was one of the top ten most common newly diagnosed cancers in non-white or Hispanic (all races) men, and Black women.⁷ As seen below, the rate of newly diagnosed liver cancer is at least 3 times higher among non-white and Hispanic (all races) Minnesotans compared to white non-Hispanics. For 2012-2016, Blacks had the highest rate of new cases (24.7 cases per 100,000) and white non-Hispanics had the lowest rate (5.7 cases per 100,000).

Liver cancer is also one of the top ten cancer causes of death among men or women of any race or ethnicity.⁷ Mortality rates for non-white Minnesotans and Hispanics (all races) are at least 2 times higher than the mortality rate for white non-Hispanics. Asian/Pacific Islander Minnesotans had the highest mortality rate (19 deaths per 100,000) and white non-Hispanic Minnesotans also had the lowest mortality rate (5 deaths per 100,000). These disparities may be related to disparities in other risk factors for liver cancer, including Hepatitis B (HBV) risk, metabolic disorders and liver disease.⁸

Incidence and mortality from liver cancer are highest among Populations of Color, Hispanics (of all races) and American Indians

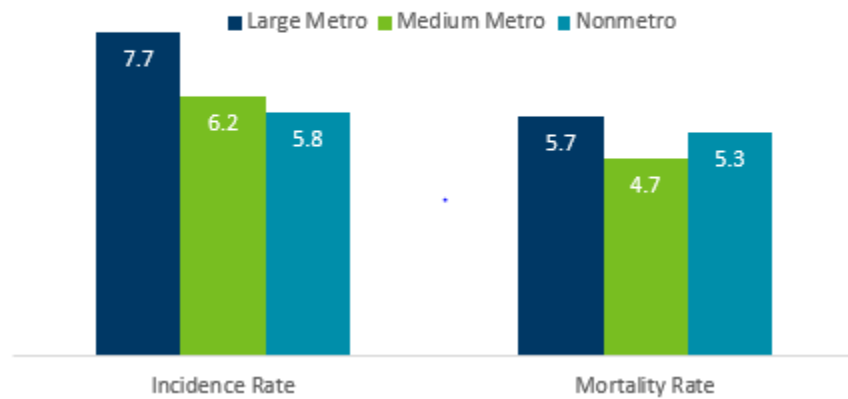
Age-standardized rates per 100,000 for 2012-2016



Liver cancer incidence and mortality rates differ across Minnesota

Liver cancer incidence and mortality rates were highest in large metro areas from 2012-2016.

Age-standardized rates per 100,000 for 2012-2016



Liver and intrahepatic duct cancer symptoms

Liver cancer symptoms typically do not present until the cancer is in later stages. The symptoms may include:⁹

- Weight loss
- Loss of appetite
- Pain in the upper abdomen
- Nausea and vomiting
- Weakness and fatigue
- Swelling of the abdomen
- Jaundice
- White, chalky stools

Liver and intrahepatic duct cancer risk factors

- Hepatitis B and C (HBV and HCV) are the leading causes of liver cancer globally,⁸ but HCV is more common than HBV in the United States.
- Obesity and type 2 diabetes increase the risk of liver cancer as well as the risk of nonalcoholic fatty liver disease. Nonalcoholic fatty liver disease is the most common chronic liver disease and may progress into cirrhosis and ultimately liver cancer. Nonalcoholic fatty liver disease is linked to obesity and type 2 diabetes, among other things.¹⁰
- Alcohol consumption and tobacco use increase an individuals' risk of liver cancer.

Ways to lower your risk of liver cancer

- Exposure to hepatitis: Learn how you can prevent hepatitis B and C infections.
 - Hepatitis B and the HBV vaccination: Hepatitis B (<https://www.health.state.mn.us/diseases/hepatitis/b/index.html>)
 - Hepatitis C: About Hepatitis C Basics (<https://www.health.state.mn.us/diseases/hepatitis/c/basics.html>)
- Vaccinations: All individuals should be vaccinated against HBV and should minimize risk of HCV by practicing safe sex, using needle exchange programs and screening donated blood and organs.⁹ For information on where to Get Vaccinated (<https://www.health.state.mn.us/people/immunize/basics/vaxfinder.html>)
- Minimizing alcohol consumption, maintaining a healthy diet, eliminating tobacco and regular exercise can lower one's risk of liver cancer.⁹ When making lifestyle changes, social support has been shown to improve success. Consider enlisting the support of friends and family, or joining a group that encourages healthy behaviors.
 - Obesity: Maintain a healthy weight throughout your life by being physically active and eating a healthy diet rich in fruits and vegetables while also low in saturated and trans fats, cholesterol, sodium, and added sugar.¹¹ The Minnesota Department of Health offers a variety of resources on obesity: <https://www.health.state.mn.us/people/obesity/index.html>
 - Smoking: If you are a smoker, try a smoking cessation program to help you quit smoking. The Minnesota Department of Health has several options to help you quit

smoking for free¹²:

<https://www.health.state.mn.us/communities/tobacco/quitting/index.html>

- Physical Activity: For ideas on how to increase your physical activity, see the resources listed at: <https://www.health.state.mn.us/communities/physicalactivity/index.html>

References

1. Key Statistics About Liver Cancer. <https://www.cancer.org/cancer/liver-cancer/about/what-is-key-statistics.html>. Accessed August 2019.
2. What Is Liver Cancer? <https://www.cancer.org/cancer/liver-cancer/about/what-is-liver-cancer.html>. Accessed August 2019.
3. Liver cancer: MN Public Health Data Access - MN Dept. of Health - MN Data. https://data.web.health.state.mn.us/cancer_liver. Accessed August 2019.
4. Liver Cancer Risk Factors. <https://www.cancer.org/cancer/liver-cancer/causes-risks-prevention/risk-factors.html>. Accessed August 2019.
5. Can Liver Cancer Be Found Early? <https://www.cancer.org/cancer/liver-cancer/detection-diagnosis-staging/detection.html>. Accessed August 2019.
6. USCS Data Visualizations. <https://www.cdc.gov/cancer/uscs/dataviz/index.htm>. Accessed August 2019.
7. Minnesota Cancer Reporting System. Cancer in Minnesota, 1998-2015. St Paul, Minnesota: Minnesota Department of Health, March 2019.
8. Endeshaw M, Hallowell B, Razzaghi H. Trends in liver cancer mortality in the United States: Dual burden among foreign- and US-born persons. *Cancer*. 2018;125(5):726-734. doi: <https://doi.org/10.1002/cncr.31869>
9. Liver cancer - Symptoms and causes. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/liver-cancer/symptoms-causes/syc-20353659>. Accessed August 2019.
10. Nonalcoholic fatty liver disease - Symptoms and causes. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/nonalcoholic-fatty-liver-disease/symptoms-causes/syc-20354567>. Accessed August 2019.
11. Obesity. Minnesota Department of Health. 2019. Available at: <https://www.health.state.mn.us/people/obesity/index.html>. Accessed August 2019
12. Quitting Tobacco. Minnesota Department of Health. 2019. Available at: <https://www.health.state.mn.us/communities/tobacco/quitting/index.html> Accessed August 2019.

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