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Newly Reported Chronic Hepatitis C Among Adults — Alaska, 2016–2023

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Executive Summary

Hepatitis C is a liver disease caused by the hepatitis C virus. Hepatitis C is a leading cause of chronic liver disease, hepatocellular carcinoma, and liver-related death nationally; it is targeted for elimination in the United States by 2030. Screening and effective treatments for hepatitis C are available, and new infections can be prevented by avoiding contact with infected blood (e.g., preventing needlestick injuries and not sharing needles used for tattooing or injection drug use with others). However, people with chronic hepatitis C can remain asymptomatic for decades and are often unaware they are infected. For this reason, all adults aged ≥18 years are recommended to be screened for hepatitis C at least once during their lifetime; universal screening during each pregnancy and periodic risk-based testing also are recommended. This report summarizes trends in newly reported confirmed chronic hepatitis C among Alaska adults during 2016–2023.

Overall, 5,352 confirmed chronic hepatitis C cases were newly reported among Alaska residents aged ≥18 years during 2016–2023. The median age of cases decreased from 38 years in 2016 to 35 years in 2023. During 2016–2023, the average annual rate of newly reported chronic hepatitis C in Alaska was 121 cases per 100,000 adults. The reported rate decreased by 30% from 2016–2019 to 2020–2023. Groups with higher reported rates included males, adults aged 18–39 years, residents of rural areas, and American Indian/Alaska Native people. The Southeast, Gulf Coast, and Matanuska-Susitna regions of Alaska had the highest reported rates in the state. Significant decreases in newly reported chronic hepatitis C rates were observed for most groups, and no groups experienced increases in hepatitis C rates.

The observed decrease in the rate of newly reported chronic hepatitis C in Alaska parallels the decrease seen nationwide since 2019. The reasons for this decrease are not yet clear but might be related to expanded hepatitis C screening and treatment efforts, as well as changes in healthcare seeking, testing practices, or other behaviors (e.g., those related to injection drug use or the COVID-19 pandemic). Disparities in reported rates may reflect differences in testing or risks of exposure related to behavioral, environmental, or social factors. In Alaska, multiple organizations are making efforts to increase screening and access to hepatitis C treatment. Improvements to hepatitis C surveillance and continued data monitoring can be used in assessing progress towards hepatitis C elimination, reducing health disparities, and directing resources to achieve hepatitis C elimination. We provide recommendations to further increase screening, treatment, and prevention.

Background

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV). Hepatitis C is a leading cause of chronic liver disease, hepatocellular carcinoma, and liver-related death nationally.[1,2] In the United States, approximately 2.2 million non-institutionalized adults had hepatitis C during 2017–2020.[3] HCV is primarily transmitted through percutaneous exposure to infected blood. In Alaska, rates of newly reported hepatitis C (including acute and chronic cases) increased during 2011–2015, especially among younger adults.[4-6] American Indian/Alaska Native persons are disproportionately impacted by hepatitis C and related mortality.[7,8] The current national plan to eliminate hepatitis C identifies American Indian/Alaska Native communities as a priority population for focused efforts to reduce these health disparities.[9]

Starting in 2014, all-oral, direct-acting antiviral therapies for HCV infection became available with >95% sustained viral response for people who complete therapy.[10] In 2020, CDC recommended all adults aged ≥18 years be screened for hepatitis C at least once during their lifetime, with subsequent linkage to care for those with viremia. Universal screening during each pregnancy and periodic risk-based testing also are recommended.[1,11] Education about risk and harm reduction are recommended for people with ongoing risk factors (e.g., people who inject drugs).

Monitoring trends in the epidemiology of chronic hepatitis C in Alaska is important for tracking state and national progress towards elimination of viral hepatitis, including among people who are at higher risk for infection.[12] We assessed epidemiologic trends in newly reported confirmed chronic hepatitis C cases among adult Alaska residents during 2016–2023.

Methods

The Alaska Surveillance, Tracking, and Reporting System (AK-STARS) is the legacy database for all reportable non-sexually transmitted infectious diseases, including hepatitis C. In 2019, the database was fully transitioned to the National Electronic Disease Surveillance System Base System (NBS). During this transition, historic AK-STARS data were cleaned and reconciled for upload into NBS, and, as such, the data reported are comparable across the period of 2016–2023.

Based on the 2020 national surveillance case definition, a confirmed case of chronic hepatitis C was defined as having: 1) a positive test for HCV RNA; 2) no documentation of converting from negative to positive for anti-HCV antibody or HCV RNA within the past 12 months; and 3) not meeting the criteria for or having no report of clinical signs of acute hepatitis (i.e., jaundice, total bilirubin ≥3 mg/dL, or serum alanine aminotransferase >200 IU/L).[13] The 2020 case definition does not substantively differ from the previous 2016 definition in ways that might affect surveillance reporting over time. Confirmed chronic hepatitis C cases were counted once during the analysis and were included in the calendar year of first positive test for HCV RNA and/or HCV antibody reported to the Alaska Section of Epidemiology.[13] Probable chronic hepatitis C cases (i.e., having only reactive HCV antibody results without evidence of HCV RNA testing) were not included in this analysis. All data used are as of May 21, 2024, and are subject to change, pending further updates.

For the period of 2016–2023, we performed descriptive analysis of newly reported confirmed chronic hepatitis C cases among Alaska residents aged ≥18 years. Data were stratified by age group (18–29, 30–39, 40–49, 50–59, ≥60 years), sex (male, female), race (White, American Indian/Alaska Native, Black, Native Hawaiian/Other Pacific Islander, Asian, other), ethnicity (Hispanic, Non-Hispanic), residential area (urban, rural, remote), and public health region (Anchorage, Matanuska-Susitna, Gulf Coast, Interior, Northern, Southeast, Southwest). Urban was defined as residence in the Municipality of Anchorage, the Fairbanks North Star Borough, or the City and Borough of Juneau. Rural was defined as living in the Matanuska-Susitna or Kenai Peninsula Boroughs, which are on the road system. All other areas that are off the road system and not connected by rail were considered remote. We also calculated the proportions of cases among women of reproductive age (18–44 years) and those first

identified through laboratory testing ordered from a correctional setting.

Annual rates of newly reported confirmed chronic hepatitis C were calculated using population estimates from the Alaska Department of Labor and Workforce. Confidence intervals for age-specific rates were calculated using a normal approximation. To allow comparability of rates by year and across groups, rates were age-standardized using the United States 2020 Census as a reference population. For categories that included ≥100 cases, we used a normal distribution approximation of the Poisson-distributed case counts to calculate and compare the overall percent difference and 95% confidence intervals for age-adjusted rates during 2016–2019 and 2020–2023. For comparisons with <100 cases, the gamma approximation of the Poisson distribution was used to estimate the confidence interval of the difference. Data were analyzed using SAS version 9.4 (SAS Institute, Cary, NC). This activity was reviewed by CDC, deemed not research, and was conducted consistent with applicable federal law and CDC policy (45 C.F.R part 46.102(l)(2)).

Results

During 2016–2023, 5,352 confirmed cases of chronic hepatitis C among adults aged ≥18 years were newly reported in Alaska (Table 1). A higher proportion of newly reported chronic hepatitis C cases were among males (66%) than females (34%). Most (61%) cases were among adults aged <40 years, including 66% of the cases among females and 59% of the cases among males (Figure 1 and Figure 2).

The median age of newly reported cases decreased from 38 years (IQR: 29–54) in 2016 to 35 years (IQR: 30–45) in 2023. Overall, 25% of all chronic hepatitis C cases were reported among women of reproductive age (18–44 years), which was relatively stable during the study period. Of the cases among females, the proportion that occurred among women aged 18–44 years increased from 66% in 2016 to 76% in 2023. The percentage of chronic hepatitis C cases first identified in a correctional setting in Alaska increased from 15% during 2016–2019 to 20% during 2020–2023.

During 2016–2023, the average annual age-standardized rate of newly reported chronic hepatitis C cases in Alaska was 121 cases per 100,000 adults aged ≥18 years (Table 1). Annual rates by age group were highest in persons aged 30–39 years (196 per 100,000 population) and 18–29 years (160 per 100,000 population) and lowest in persons aged ≥60 years (60 per 100,000 population). Annual rates by region were highest among adults living in rural areas (162 per 100,000 population) and among residents of the Southeast (156 per 100,000 population), Gulf Coast (154 per 100,000 population), and Matanuska-Susitna (153 per 100,000 population) regions (Table 1 and Figure 3). Annual rates by race were highest in American Indian/Alaska Native adults (223 per 100,000 population) and lowest among Native Hawaiian/Other Pacific Islander (22 per 100,000 population) and Asian (19 per 100,000 population) adults.

Overall, the rate of newly reported chronic hepatitis C in Alaska decreased by 30% (95% CI: 26%–35%) from 142 per 100,000 adults during 2016–2019 to 99 per 100,000 adults during 2020–2023 (Table 2 and Figure 4). The change in rates between these periods was similar by sex and locality. All age groups experienced a significant decrease in the rate of chronic hepatitis C between 2016–2019 and 2020–2023, except for adults aged 40–49 years, who had no significant change (Table 2 and Figure 5). All regions experienced a significant decrease, except for the Southwest and Northern regions. White, American Indian/Alaska Native, and Asian people and people of non-Hispanic ethnicity experienced a decrease across the two periods. Black and Native Hawaiian/Other Pacific Islander people and people of Hispanic ethnicity experienced no significant change. No group had a significant increase in the rate of chronic hepatitis C over the time periods.

Discussion

During 2016–2023, 5,352 confirmed chronic hepatitis C cases were newly reported among adult residents of Alaska, for an average annual rate of 121 cases per 100,000 population. The reported rate in Alaska decreased by 30% between 2016–2019 and 2020–2023, which

mirrors a decreasing trend nationally.[7,14] The cause of the decrease is unknown but may be related in part to expanded hepatitis C screening and treatment efforts and changes in healthcare-seeking, testing practices, or other behaviors (e.g., those related to injection drug use or the COVID-19 pandemic). Groups with higher reported chronic hepatitis C rates included males, adults aged 18–39 years, American Indian/Alaska Native people, and residents of rural areas; higher rural incidence also has been reported in other states.[6,15] As has been described in previous hepatitis C reports for Alaska, the Southeast, Gulf Coast, and Matanuska-Susitna regions had the highest rates.[4,5] Decreases in the rates of newly reported chronic hepatitis C over time were observed for most groups, and no groups experienced increases in hepatitis C.

Rates among adults aged <40 years in Alaska were more than double the national rates reported during 2018–2022.[7,16] During 2016–2023, a decrease was observed in the median age of Alaska residents with newly reported chronic hepatitis C over time (from 38 years in 2016 to 35 years in 2023) — a decrease that might reflect the new recommendations in 2020 which shifted from a focus on testing among baby boomers (i.e., people born during 1945–1965) and those with risk factors to universal testing for all adults.[1] In Alaska and nationwide, a trend of increasing hepatitis C incidence among young adults previously had been noted in association with increases in injection drug use.[5,15–17] During 2020–2023, all age groups in Alaska experienced lower rates of chronic hepatitis C compared with 2016–2019, except for ages 40–49 years, which did not have a significant change.

Three-quarters of newly reported chronic hepatitis C cases in women were among those of reproductive age (18–44 years), which has implications for perinatal HCV transmission.[2,18] Nationwide, rates of hepatitis C among people with live births increased 20% (from 421 to 507 cases per 100,000) from 2016 to 2020.[19] During this time, transmission of hepatitis C during pregnancy to an infant occurred in 6% of pregnancies and increased to 11% when co-infection with human immunodeficiency virus (HIV) was present.[2] Barriers to testing perinatally-exposed infants by pediatric providers include a lack of awareness regarding the exposure risk to the infant or the need for ongoing monitoring.[2] Reported rates of perinatal hepatitis C are expected to increase as capacity for viral hepatitis surveillance improves.

Disparities in reported rates by race and ethnicity might reflect differences in testing related to healthcare access or utilization. They also might reflect true differences in exposure risks related to behavioral, environmental (e.g., road access), or social factors, including structural racism and historical trauma, which have been shown to contribute to chronic disease health disparities.[20] While data from the United States are lacking, Canadian studies of Indigenous populations show that people who attended a boarding school or had a parent or grandparent who attended a boarding school were significantly more likely to use injection drugs.[21,22] In an analysis of Indian Health Service data during 2010–2014, trends among American Indian/Alaska Native peoples were similar to national trends, in terms of increases in injection drug use and hepatitis C among young adults.[23] In Alaska, we observed similar decreases over time in rates of newly reported chronic hepatitis C among American Indian/Alaska Native, White, and Asian adults.

A variety of changes occurred during the analysis period that could have resulted in decreased hepatitis C rates. Nationally and in Alaska during 2021–2023, increases were observed relative to prior years in opiate-related deaths, possibly related to the dangers of fentanyl;[24,25] a shift in opiate use from injection to smoking also was noted.[26,27] Notably, the COVID-19 pandemic was shown to negatively impact national hepatitis C testing and treatment, at least temporarily.[28] The expanded national recommendation to test all adults at least once in a lifetime occurred in 2020.[1] Using data reported to the state, we were unable to assess the potential impact of the pandemic and changes in testing recommendations. However, the numbers of tests reported by Alaska Native Tribal Health Consortium (ANTHC), which has a relatively stable catchment population, increased overall during 2016–2023 (with an observed increase in 2019, followed by a slight decrease in 2020 and

gradual increases in subsequent years).[29] Additionally, efforts have been made by many organizations in Alaska to expand access to hepatitis C screening and treatment. ANTHC has performed more than 10,000 tests annually since 2017 and increased access to treatment, with 1,397 people treated and 96% achieving sustained viral response during 2014–2023.[10,29] Treatment access also was expanded to Alaska residents with Medicaid starting in 2018.[6] Expanded hepatitis C screening and treatment through the Alaska Department of Corrections (since 2020) resulted in the observed increase in the proportion of cases first identified in correctional settings and the treatment of 585 people who were incarcerated during fiscal years 2016–2022[30] and 771 people by the end of fiscal year 2023 (R. Lawrence, personal communication). Notably, hepatitis C testing and treatment have been further expanded and offered to all incarcerated people in Alaska starting in late 2023. A recent analysis of data from a large national, commercial laboratory estimated that 34% of persons with hepatitis C in Alaska achieved viral clearance or cure during 2013–2022, which was similar to the national rate but below the 58% target by 2025.[31,32]

Various partners in Alaska have noted challenges in ensuring people with reactive HCV antibody tests receive confirmatory testing for HCV RNA and, when virus is detected, subsequent linkage to treatment, especially in remote areas. In 2023, CDC updated guidance to support operational strategies using a single visit to obtain blood samples for both steps of the HCV testing sequence.[33] ANTHC conducted a pilot project that trained Community Health Aides/Practitioners in remote villages to administer rapid HCV antibody screening tests, collect specimens for RNA testing, and link patients with both positive HCV antibody and HCV RNA test results to telemedicine for treatment; future plans are to expand testing in remote villages based on lessons learned, including incorporating automatic (reflex) HCV RNA testing of HCV antibody-positive screening tests to minimize loss to follow-up.[29] Tribal partners in the Southeast (Southeast Alaska Regional Health Consortium) and Interior (Tanana Chiefs Conference) have implemented successful initiatives to increase universal screening, such as offering screening reminders for clinicians and monitoring hepatitis C screening as a quality measure.[29] Statewide, further efforts are needed to improve linkage to hepatitis C testing and treatment for people who inject drugs and people who are experiencing homelessness. The newly approved point-of-care HCV RNA test might provide a complementary approach to implementing test and treat strategies, including in remote areas.[34]

Future goals for the hepatitis C program in Alaska are to reduce new HCV infections, expand screening and linkage to care among disproportionately affected groups,[9] monitor progress through the HCV clearance cascade,[31,32,35,36] and improve perinatal hepatitis C surveillance and prevention.[2] Reporting of negative HCV RNA results to the state was instituted in September 2023,[37] which should improve case classification and allow crude monitoring of testing access and response to presumed treatment (change from positive to negative RNA test). The reportable conditions statutes updated in September 2023 also include provider reporting of pregnancy status in persons known to have hepatitis C.[38] The Hepatitis Advisory Working Group (HAWG) of state partners working on hepatitis meets quarterly and is drafting a state plan for viral hepatitis elimination.

This report is subject to at least six limitations. First, the rate of newly reported chronic hepatitis C does not represent chronic hepatitis C prevalence nor the occurrence of new chronic hepatitis C in Alaska. Newly reported chronic hepatitis C cases do not include people with hepatitis C who have not been tested or those who tested positive prior to 2016 and might still need linkage to treatment. Second, the number and rates of chronic hepatitis C cases may be underestimated due to only including confirmed cases and not probable cases. Third, some acute hepatitis C cases may have been misclassified as chronic hepatitis C cases due to missing clinical information for most reported cases and limited reporting of negative RNA results (only reported for cases tested in major laboratories during 2022 and all laboratories starting in late 2023). Fourth,

comparisons to previous reports of hepatitis C data from the Alaska Section of Epidemiology are limited by changes in reporting, surveillance case definitions, and analysis methods over time. Finally, the small size of some groups and changes in the completeness of race and ethnicity data over time likely limited the ability to detect some changes in rates.

Conclusions

A substantive decrease in the rate of newly reported chronic hepatitis C cases in Alaska occurred during 2020–2023 relative to 2016–2019, similar to decreases observed nationwide. The reasons for this decrease might be related to expanded hepatitis C screening and treatment efforts and changes in healthcare-seeking, testing practices, or other behaviors (e.g., those related to injection drug use or the COVID-19 pandemic). Improvements to hepatitis C surveillance will help assess progress towards hepatitis elimination, reduce health disparities, and direct resources to achieve hepatitis C elimination. Further research is needed to better understand factors that contribute to disparities in hepatitis C in Alaska.

Recommendations

1. Provide universal hepatitis C screening as part of routine primary care:
    - For all adults aged ≥18 years, at least once in their lifetimes; and
    - During each pregnancy.
2. Provide at least one-time testing for people with the following conditions and exposures:
    - Persons with HIV;
    - Persons who ever injected drugs and shared needles, syringes, or other drug preparation equipment, including those who injected once or a few times many years ago;
    - Persons with needle-stick or sharps injuries or with mucosal exposures to HCV-positive blood;
    - Persons with a history of certain medical conditions, including persistently abnormal ALT levels, ever having received maintenance hemodialysis, or transfusions or organ transplants prior to universal hepatitis C screening; and
    - Infants and children born to mothers with hepatitis C, possible exposure from injection drug use during pregnancy, or separation from their birthing parent with unknown status (HCV RNA test at ages 2–17 months; HCV antibody and reflex to HCV RNA test at ages ≥18 months, without previous testing; see: https://www.cdc.gov/mmwr/volumes/72/rr/rr7204a1.htm).
3. Provide periodic testing for:
    - Persons with ongoing risk factors, including those who currently inject drugs and share needles, syringes, or other drug equipment;
    - Persons with certain medical conditions, including those requiring maintenance hemodialysis; and
    - Anyone who requests hepatitis C testing, regardless of their reported exposures or risk factors.
4. Use strategies to collect all specimens needed for two-step testing at a single visit. Perform automatic (reflex) testing for HCV RNA on all specimens positive for HCV antibody (see: https://www.cdc.gov/mmwr/volumes/72/wr/mm7228a2.htm).
5. Provide hepatitis C treatment or linkage to care for all persons aged ≥3 years with positive HCV antibody and positive HCV RNA test results. For all children with a positive HCV RNA, consult with a provider with expertise in pediatric hepatitis C management. Persons with a positive HCV antibody test result and negative HCV RNA test result likely have a resolved HCV infection, although false-positive HCV antibody test results can occur.
6. Offer hepatitis C treatment as part of primary care to improve patient access and reduce barriers to care. Simplified hepatitis C treatment guidelines are available through the American Association for the Study of Liver Diseases (AASLD) and the Infectious Diseases Society of America (IDSA) (see: http://www.hcvguidelines.org). The Alaska Native Tribal Health Consortium also offers treatment information and training (ID ECHO and LiverConnect) through their

Liver Disease & Hepatitis Program website (see: www.anthc.org/hep).

7. Substance use should not preclude or delay hepatitis C treatment. Screen patients with hepatitis C for ongoing alcohol and injection drug use, HIV, and hepatitis B. As appropriate, offer intervention and/or linkage to providers of harm reduction and social support services.
8. Evaluate patients with hepatitis C for chronic liver disease. Vaccinate patients with hepatitis C against hepatitis A and hepatitis B if they are not fully vaccinated or vaccination status is unknown.
9. All people with risk factors should be educated about risk and harm reduction. Patients with hepatitis C should be advised to not donate blood, tissue, or semen, and refrain from sharing personal effects that might come into contact with blood (e.g., toothbrushes, razors, nail clippers, glucose meters, and lancet devices).
10. Clinicians should report hepatitis C cases, as well as pregnancy in persons with hepatitis C, to the Alaska Section of Epidemiology by faxing the Confidential Infectious Disease Report Form to 907-561-4239 (see: https://health.alaska.gov/dph/Epi/Documents/pubs/conditions/ConditionsReportable_HCP.pdf).
11. Laboratories should report hepatitis C results, including positive HCV antibody screening tests, HCV RNA tests (both positive and negative results), and genotype results to the Alaska Section of Epidemiology by electronic lab report or by faxing the Confidential Infectious Disease Report Form to 907-561-4239 (see: https://health.alaska.gov/dph/Epi/Documents/pubs/conditions/ConditionsReportable_LABS.pdf).

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Table 1. Number, Percent, and Age-Standardized Rate* (per 100,000) with 95% Confidence Intervals (CI) of Newly Reported Chronic Hepatitis C Cases Among Adults Aged ≥18 years, by Sociodemographic Group or Year — Alaska, 2016–2023

Group		No.	(%)	Rate	(95% CI)
Overall		5352	(100)	121	(118–124)
Sex					
	Male	3515	(66)	153	(148–159)
	Female	1837	(34)	86	(82–90)
Age in years					
	18–29	1524	(28)	160	(152–168)
	30–39	1746	(33)	196	(187–206)
	40–49	739	(14)	106	(98–113)
	50–59	666	(12)	90	(83–96)
	≥60	677	(13)	60	(55–64)
Area†					
	Rural	1480	(28)	162	(154–170)
	Urban	2884	(54)	110	(105–114)
	Remote	917	(17)	104	(97–111)
	Unknown	71	(1)	--	--
Region					
	Southeast	686	(13)	156	(144–168)
	Gulf Coast	705	(13)	154	(142–165)
	Matanuska-Susitna	913	(17)	153	(144–163)
	Anchorage	2158	(40)	118	(113–124)
	Southwest	283	(5)	114	(100–128)
	Interior	439	(8)	64	(58–70)
	Northern	97	(2)	57	(45–69)
	Unknown	71	(1)	--	--
Race§					

	AI/AN	1856	(35)	223	(213–233)
	Black	205	(4)	101	(87–116)
	White	2521	(47)	78	(75–81)
	NHOPI	51	(1)	22	(4–39)
	Asian	69	(1)	19	(14–23)
	Other	265	(5)	--	--
	Unknown	498	(9)	--	--
Ethnicity[¶]					
	Non-Hispanic	4106	(77)	100	(97–104)
	Hispanic	202	(4)	67	(57–76)
	Unknown	1044	(20)	--	--
Year					
	2016	809	(15)	142	(132–152)
	2017	829	(15)	147	(137–157)
	2018	814	(15)	146	(135–156)
	2019	746	(14)	134	(124–143)
	2020	560	(10)	102	(94–111)
	2021	578	(11)	106	(97–115)
	2022	504	(9)	94	(86–102)
	2023	512	(10)	94	(86–103)

AI/AN = American Indian/Alaska Native peoples; NHOPI = Native Hawaiian and Other Pacific Islander.

** Annual rates were calculated using population estimates from the Alaska Department of Labor and Workforce. Direct age-standardization was performed using the United States 2020 Census as a reference population. Age-specific rates are not age-standardized.*

† For area, urban was defined as Anchorage Municipality, Fairbanks North Star Borough, and City and Borough of Juneau. Rural defined as Matanuska-Susitna Borough and Kenai Peninsula Borough. All other areas were considered remote.

§ For race, 112 (2%) people selected two or more categories and are counted more than once in the analysis by racial group.

¶ Race and ethnicity were reported separately and are not mutually exclusive (i.e., people reporting Hispanic ethnicity could have identified as any racial category).

Figure 1. Number of Newly Reported Chronic Hepatitis C Cases Among Adults Aged ≥18 years, by Age and Sex — Alaska, 2016–2023

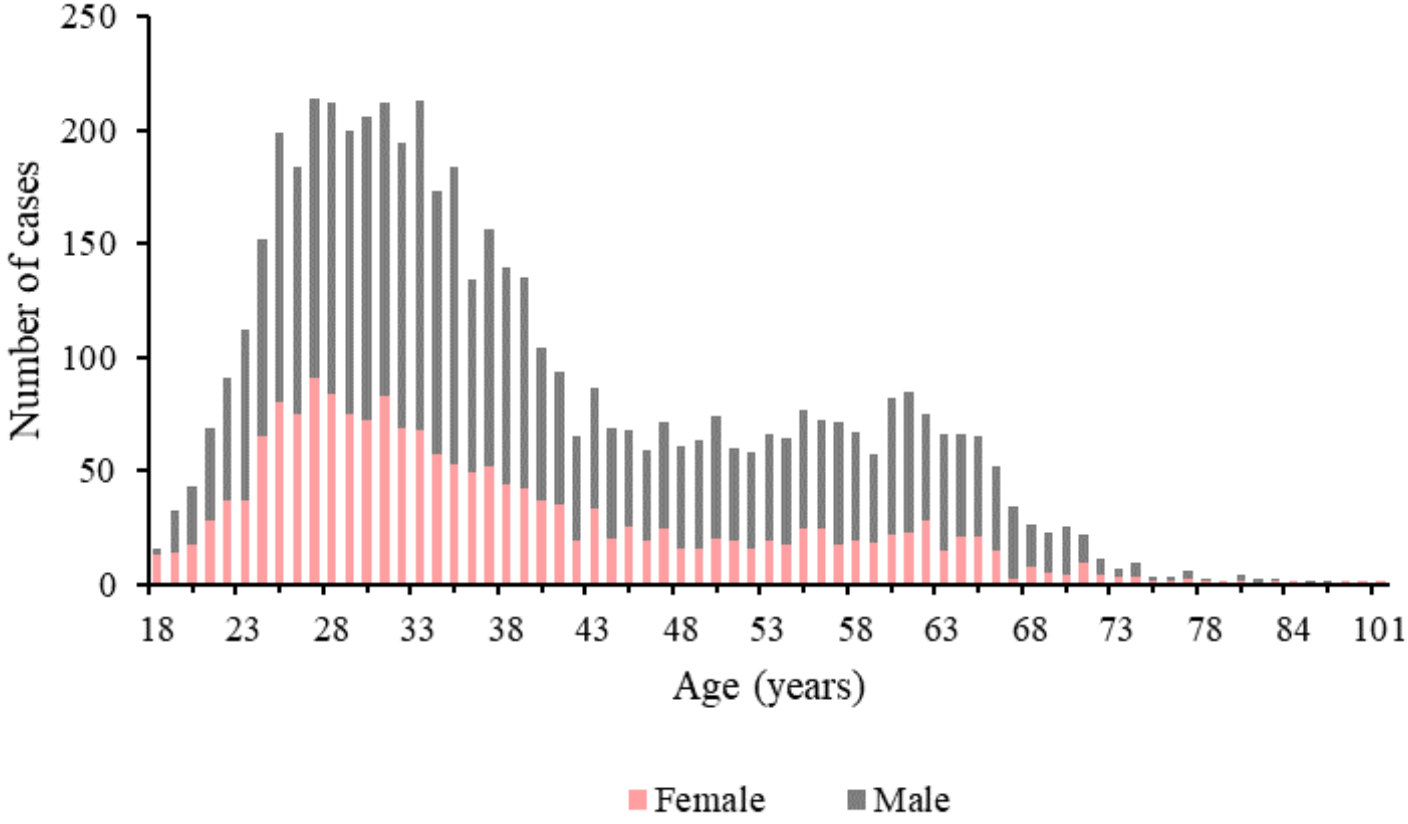

Figure 2. Proportion of Newly Reported Chronic Hepatitis C Cases Among Adults Aged ≥18 years, by Age group and Year — Alaska, 2016–2023

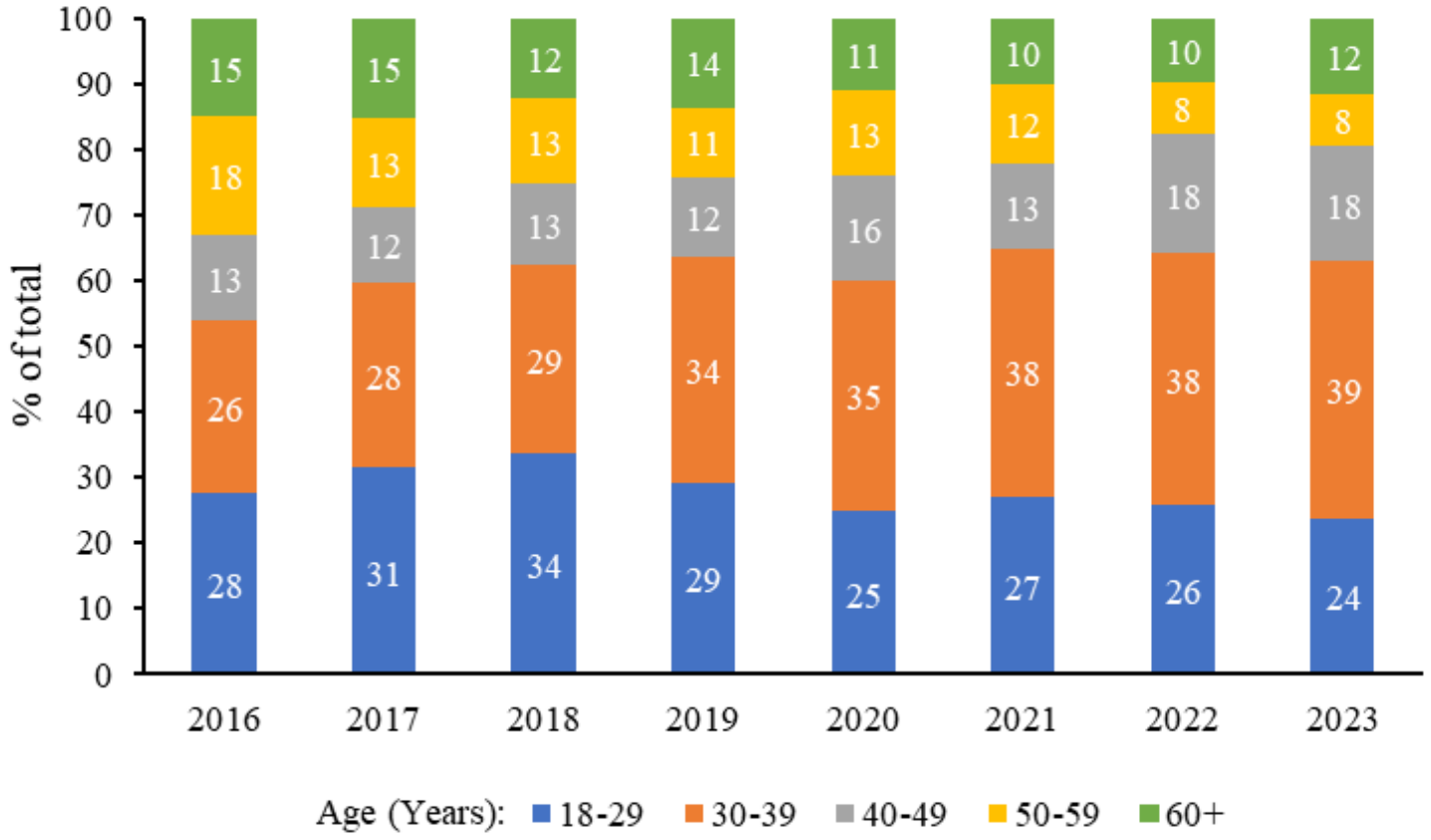

Figure 3. Average Age-Standardized Rate of Newly Reported Chronic Hepatitis C Cases per 100,000 Adults Aged ≥18 years, by Region — Alaska, 2016–2023

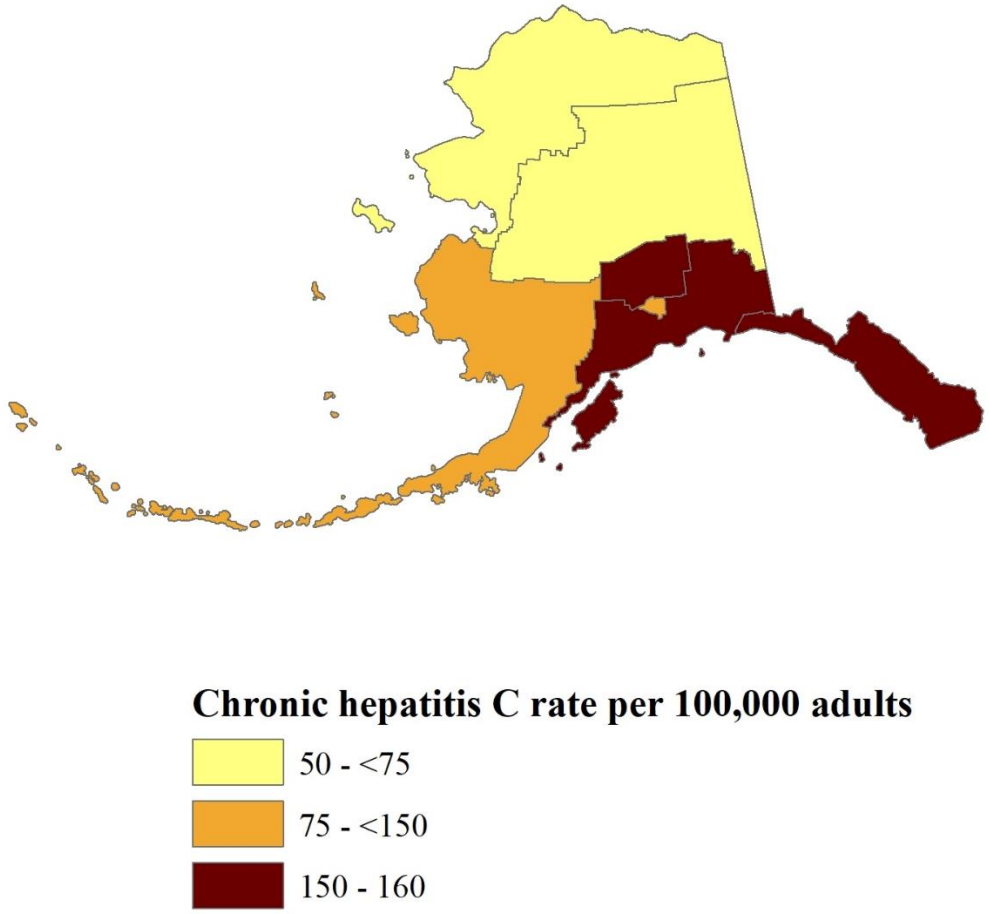

Table 2. Age-Standardized Rate* of Newly Reported Hepatitis C Cases per 100,000 Adults Aged ≥18 years and Percent Change with 95% CI, by Sociodemographic Group — Alaska, 2016–2019 and 2020–2023

Group	2016–2019				2020–2023				%Change in Rates	(95% CI)
	No	(%)	Rate	(95% CI)	No	(%)	Rate	(95% CI)		
Overall	3198	(100)	142	(137–147)	2154	(100)	99	(95–103)	-30	(-35, -26)
Sex										
Male	2069	(65)	178	(170–185)	1446	(67)	129	(122–135)	-27	(-33, -22)
Female	1129	(35)	104	(98–111)	708	(33)	68	(63–73)	-35	(-43, -27)
Age in years										
18–29	976	(31)	199	(186–211)	548	(25)	118	(108–128)	-40	(-48, -33)
30–39	938	(29)	215	(201–229)	808	(38)	178	(166–191)	-17	(-26, -8)
40–49	393	(12)	113	(102–125)	346	(16)	98	(88–108)	-13	(-28, +1)
50–59	442	(14)	112	(102–123)	224	(10)	64	(56–72)	-43	(-55, -31)
≥60	449	(14)	85	(77–93)	228	(11)	38	(33–43)	-55	(-67, -44)
Area†										
Rural	899	(28)	200	(186–213)	581	(27)	125	(115–135)	-37	(-46, -29)
Urban	1752	(55)	129	(123–136)	1132	(53)	89	(84–94)	-31	(-37, -25)
Remote	517	(19)	115	(104–125)	400	(19)	94	(84–103)	-18	(-30, -6)
Unknown	30	(1)	--	--	41	(2)	--	--	--	--
Region										

Southeast	386	(12)	168	(151–186)	300	(14)	144	(127–160)	-15	(-29, 0)
Gulf Coast	455	(14)	197	(179–216)	250	(12)	110	(96–124)	-44	(-56, -32)
Matanuska-Susitna	540	(17)	184	(169–200)	373	(17)	123	(110–135)	-33	(-44, -23)
Anchorage	1313	(41)	140	(133–148)	845	(39)	96	(89–103)	-32	(-39, -24)
Southwest	139	(4)	112	(93–131)	144	(7)	116	(97–136)	+4	(-21, +28)
Interior	288	(9)	82	(72–91)	151	(7)	46	(38–53)	-44	(-59, -29)
Northern	47	(1)	54	(38–70)	50	(2)	60	(43–77)	+12	(-32, +55)
Unknown	30	(1)	--	--	41	(2)	--	--	--	--
Race[§]										
AI/AN	1028	(32)	248	(233–264)	828	(38)	198	(184–212)	-20	(-29, -12)
Black	111	(3)	112	(90–135)	94	(4)	92	(72–111)	-18	(-45, +8)
White	1480	(46)	90	(85–94)	1041	(48)	66	(62–71)	-26	(-33, -19)
NHOPI	14	(<1)	15	(4–25)	37	(2)	29	(4–54)	+97	(-86, +280)
Asian	42	(1)	25	(17–32)	27	(1)	14	(8–19)	-45	(-83, -8)
Other	241	(8)	--	--	24	(1)	--	--	--	--
Unknown	322	(10)	--	--	176	(8)	--	--	--	--
Ethnicity[¶]										
Non-Hispanic	2382	(74)	114	(110–119)	1724	(80)	86	(82–90)	-25	(-30, -19)
Hispanic	94	(3)	63	(49–76)	108	(5)	70	(56–84)	+12	(-20, +43)

Unknown	722	(23)	--	--	322	(15)	--	--	--	--

AI/AN = American Indian/Alaska Native; NHOPI = Native Hawaiian and Other Pacific Islander.

** Annual rates were calculated using population estimates from the Alaska Department of Labor and Workforce. Direct age-standardization was performed using the United States 2020 Census as a reference population. Age-specific rates were not age-standardized.*

† For area, urban was defined as Anchorage Municipality, Fairbanks North Star Borough, Juneau City/Borough; rural (on road) defined as Matanuska-Susitna Borough and Kenai Peninsula Borough census areas; all other areas were considered remote (off-road).

§ For race, 112 (2%) people selected two or more categories and are counted more than once in the analysis by racial group.

¶ Race and ethnicity were reported separately and are not mutually exclusive (i.e., people reporting Hispanic ethnicity could have identified as any racial category).

Figure 4. Annual Age-Standardized Rates and 95% Confidence Intervals of Newly Reported Chronic Hepatitis C Cases per 100,000 Adults Aged ≥18 years — Alaska, 2016–2023

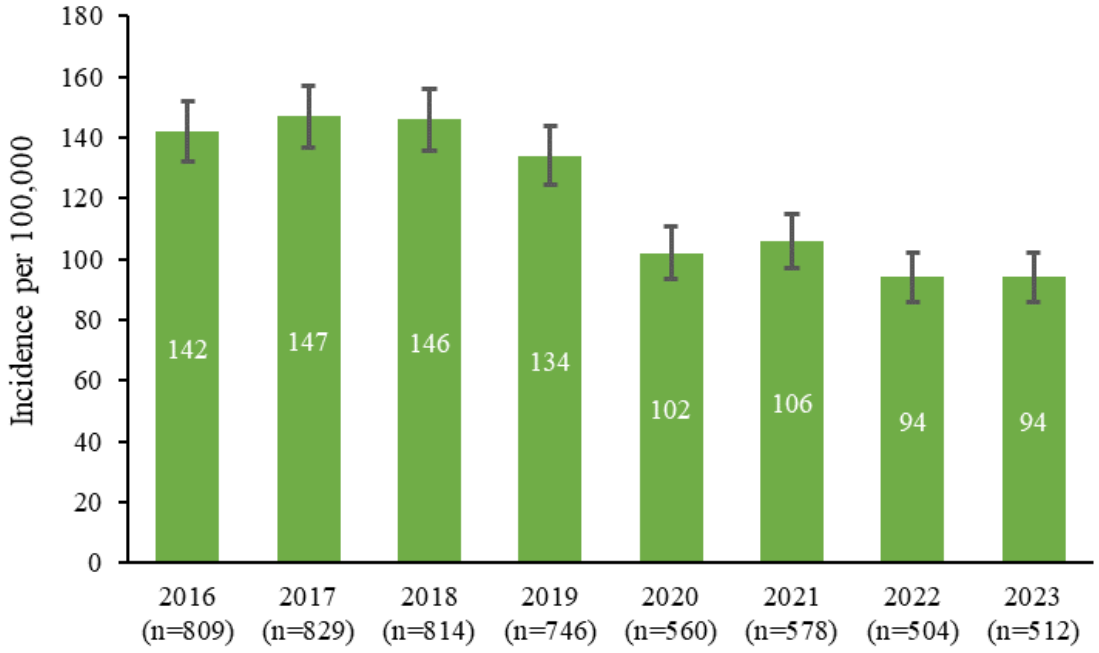

Figure 5. Annual Rates of Newly Reported Chronic Hepatitis C Cases per 100,000 Adults, by Age Group — Alaska, 2016–2023