

VIRAL HEPATITIS NATIONAL STRATEGIC PLAN FOR THE UNITED STATES: A ROADMAP TO ELIMINATION (2021–2025)

VISION

The United States will be a place where new viral hepatitis infections are prevented, every person knows their status, and every person with viral hepatitis has high-quality health care and treatment and lives free from stigma and discrimination.

This vision includes all people, regardless of age, sex, gender identity, sexual orientation, race, ethnicity, religion, disability, geographic location, or socioeconomic circumstance.

Goals, Objectives, and Strategies



GOAL 1: PREVENT NEW VIRAL HEPATITIS INFECTIONS

Objective 1.1: Increase awareness of viral hepatitis

Strategies:

- 1.1.1 Implement local, state, and national campaigns to provide education about viral hepatitis, the need for vaccination, and the benefits of getting tested, treated, and cured.
- 1.1.2 Partner with community groups to provide education about viral hepatitis and share personal stories at community locations (e.g., workplaces, schools, faith-based organizations), in the media, and other settings to reach all people, especially in disproportionately impacted communities.
- 1.1.3 Develop accessible, comprehensive, culturally, linguistically, and age-appropriate sex education curricula including for hepatitis B, hepatitis C, HIV, STIs, and drug use risk for youth and adults.
- 1.1.4 Integrate messaging on HIV, viral hepatitis, STIs, sexual health, and drug use.

Objective 1.2: Increase viral hepatitis vaccination uptake and vaccine development

Strategies:

- 1.2.1 Provide viral hepatitis vaccination at a broad range of clinical and nontraditional community-based settings including HIV, STI, refugee health clinics, organizations that serve people who use drugs and/or people experiencing homelessness, and correctional facilities.
- 1.2.2 Reduce the financial and system barriers encountered by providers and consumers to providing/receiving viral hepatitis vaccinations.
- 1.2.3 Train providers on strategies to address vaccine hesitancy.
- 1.2.4 Scale up administration of universal hepatitis B vaccine birth dose within 24 hours of birth, including through encouraging use of quality measures (e.g., Healthcare Effectiveness Data and Information Set [HEDIS] measure).
- 1.2.5 Improve surveillance infrastructure to better monitor adult immunizations.
- 1.2.6 Research and scale up best practices in hepatitis A and hepatitis B vaccination provision to expand vaccine coverage consistent with ACIP guidelines.
- 1.2.7 Advance research toward the development of a hepatitis C vaccine.

Objective 1.3: Eliminate perinatal transmission of hepatitis B and hepatitis C

Strategies:

- 1.3.1 Increase implementation of guidelines for hepatitis B and hepatitis C screening, diagnosis, and management during pregnancy.
- 1.3.2 Improve surveillance by documenting pregnancy status on all viral hepatitis laboratory reports across health care facilities, laboratories, and public health departments.
- 1.3.3 Collaborate with community organizations that serve disproportionately impacted populations to educate staff and people of childbearing potential about viral hepatitis and the importance of preventing hepatitis transmission to infants.

Objective 1.4: Increase viral hepatitis prevention and treatment services for people who use drugs

Strategies:

- 1.4.1 Educate communities and individuals about substance use disorders, available prevention, harm reduction and treatment options, and associated risks including transmission of viral hepatitis, HIV, and STIs.



GOAL 2: IMPROVE VIRAL HEPATITIS-RELATED HEALTH OUTCOMES OF PEOPLE WITH VIRAL HEPATITIS

Objective 2.1: Increase the proportion of people who are tested and aware of their viral hepatitis status

Strategies:

- 2.1.1 Scale up implementation of universal hepatitis C screening guidelines among all adults and pregnant women in a range of clinical and nonclinical settings, and provide linkage to care.
- 2.1.2 Expand innovative models for viral hepatitis testing in a range of settings such as community-based organizations, mobile units, substance use disorder treatment programs, correctional facilities, syringe services programs, HIV clinics, STI clinics, refugee health centers, and homeless shelters.
- 2.1.3 Leverage covered preventive services by health insurers to expand hepatitis B and hepatitis C testing and address related price and insurance barriers.
- 2.1.4 Develop and implement quality measures for viral hepatitis testing (e.g., HEDIS measures and electronic clinical quality measures [eCQM]).
- 2.1.5 Increase use of reflex testing for hepatitis C RNA with a positive hepatitis C antibody test.
- 2.1.6 Conduct research to support changes in hepatitis B screening guidelines to demonstrate screening reliability, efficacy, safety, and cost-effectiveness.
- 2.1.7 Increase hepatitis B testing and provide linkage to care among people born in geographic regions with HBsAg prevalence of $\geq 2\%$, in a range of clinical and nonclinical settings.

Objective 2.2: Improve the quality of care and increase the number of people with viral hepatitis who receive and continue (hepatitis B) or complete (hepatitis C) treatment, including people who use drugs and people in correctional settings

Strategies:

- 2.2.1 Educate people who are newly diagnosed about recommended assessment, vaccination, treatments, and the benefits of treatment adherence and completion, including in substance use disorder and correctional settings.
- 2.2.2 Improve linkage to care between community-based organizations, correctional facilities, syringe services programs, alcohol and other substance use disorder treatment programs, and viral hepatitis treatment providers.
- 2.2.3 Remove insurance coverage, price, and payment barriers to viral hepatitis care and treatment, including prior authorization requirements.
- 2.2.4 Scale up innovative models of care that increase convenience and reach people impacted by viral hepatitis, such as telehealth, mobile units, and apps for patient self-management and care coordination.

- 2.2.5 Scale up innovative approaches to engage people in care and re-engage those who are lost to care, such as data to care collaborations that include patient navigation.
- 2.2.6 Scale up, in accordance with current guidelines, implementation of opt-out testing and viral hepatitis prevention, management, and treatment in correctional settings.
- 2.2.7 Develop and implement viral hepatitis quality measures to incentivize quality screening, care, and treatment.
- 2.2.8 Study risk factors for hepatitis B reactivation in persons with inactive disease or resolved infection and make recommendations for prophylaxis, monitoring, and use of vaccination to boost immunity in people with antibody to hepatitis B who are receiving immunosuppressive therapy.

Objective 2.3: Increase the capacity of the public health, health care delivery, and health care workforce to effectively identify, diagnose, and provide holistic care and treatment for people with viral hepatitis

Strategies:

- 2.3.1 Partner with professional societies and academic institutions to increase provision of viral hepatitis screening and treatment by health care professionals and paraprofessionals.
- 2.3.2 Expand hepatitis C screening and treatment capacity among public health, primary care and other health care providers, including pharmacists, to support the implementation of viral hepatitis testing, counseling, and treatment recommendations.
- 2.3.3 Use technology and digital collaboration tools such as online training and case conferencing to expand health care provider expertise to areas with few specialists.
- 2.3.4 Improve implementation of recommended monitoring and care for people with chronic hepatitis B or chronic hepatitis C related to treatment status, fibrosis, and risk for hepatocellular carcinoma, to prevent morbidity and mortality from hepatocellular carcinoma, end-stage liver disease, and other hepatitis-related sequelae.
- 2.3.5 Expand and improve effectiveness of viral hepatitis navigation and linkage to care in programs that provide viral hepatitis outreach, screening, and treatment.
- 2.3.6 Implement strategies and promote policies to enhance collaborative, integrated, patient-centered models of care including addressing co-occurring conditions, such as alcohol and other substance use disorders, particularly those reaching priority populations and underserved communities.

Objective 2.4: Support the development and uptake of new and improved diagnostic technologies, therapeutic agents, and other interventions for the identification and treatment of viral hepatitis

Strategies: Diagnostic

- 2.4.1 Advance the development and use of viral hepatitis point-of-care diagnostics and self-collection diagnostics.
- 2.4.2 Develop accurate and convenient tests that discriminate between acute and chronic HCV infections (such as HCV core antigen and serologic tests).
- 2.4.3 Improve and validate tools for earlier detection of hepatocellular carcinoma, such as improved liver imaging and blood and urine tests.

Strategies: Therapeutic

- 2.4.4 Advance research on treatment options for achieving hepatitis B cure.
- 2.4.5 Study the safety of treatment of hepatitis C in pregnancy.
- 2.4.6 Improve prevention of end-stage liver disease and hepatocellular carcinoma among people living with well-controlled hepatitis B and cured hepatitis C by understanding risk factors and identifying and scaling up effective therapies.
- 2.4.7 Research hepatitis B and hepatitis C therapies to identify potent, broadly effective, and easily administered therapies, such as long-acting drugs.
- 2.4.8 Advance research on treatments for hepatitis A to rapidly treat infections and reduce transmissions in outbreak settings.



GOAL 3: REDUCE VIRAL HEPATITIS–RELATED DISPARITIES AND HEALTH INEQUITIES

Objective 3.1: Reduce stigma and discrimination faced by people with and at risk for viral hepatitis

Strategies:

- 3.1.1 Engage faith-based and other community leaders to dispel viral hepatitis–related stigma and share facts, recommendations, and personal stories in community settings and in the media to reach all people, especially in disproportionately impacted communities.
- 3.1.2 Reduce stigma, unconscious bias, and discriminatory practices, including at health care delivery sites.
- 3.1.3 Enforce current protections that prohibit discrimination against people with viral hepatitis and reexamine state laws that criminalize viral hepatitis and behavior related to viral hepatitis.
- 3.1.4 Educate health care and other partners, the public, and people with viral hepatitis about federal protections against viral hepatitis–related discriminatory policies and practices.

Objective 3.2: Reduce disparities in new viral hepatitis infections, knowledge of status, and along the cascade/continuum of care

Strategies:

- 3.2.1 Foster partnerships with organizations that serve disproportionately impacted populations, including community organizations, provider organizations, academic institutions, and offices of minority health, to raise awareness of viral hepatitis.
- 3.2.2 Support community leaders and people with lived experience to identify, plan, and implement efforts to meet the needs of their community related to viral hepatitis.
- 3.2.3 Provide hepatitis prevention education, hepatitis treatment, and substance use disorder treatment for people in correctional settings, particularly for those who may use drugs.
- 3.2.4 Require funded programs that address viral hepatitis to focus on disproportionately impacted populations, help reduce stigma and discrimination, and include contributions of people with lived experience.
- 3.2.5 Advance health disparities research to further understand the influence of social determinants on disparities in viral hepatitis and inform interventions to reduce or eliminate these disparities.

Objective 3.3: Expand culturally competent and linguistically appropriate viral hepatitis prevention, care, and treatment services

Strategies:

- 3.3.1 Develop and disseminate culturally competent and linguistically appropriate viral hepatitis educational materials in collaboration with people with lived experience.
- 3.3.2 Train health professionals in the delivery of culturally competent education, counseling, testing, care, and treatment for viral hepatitis, including development of appropriate informational and clinical decision support tools.
- 3.3.3 Foster collaboration between organizations that serve priority populations and academic researchers to identify and scale up implementation of effective strategies to improve viral hepatitis care and treatment, informed by people with lived experience.

Objective 3.4: Address social determinants of health and co-occurring conditions

Strategies:

- 3.4.1 Establish and expand policies and approaches that promote viral hepatitis prevention and care in programs involving housing, education, employment, transportation, the justice system, and other systems that impact social determinants of health.
- 3.4.2 Develop whole-person systems of care that address co-occurring conditions for people with and at risk for viral hepatitis, HIV, STIs, and substance use disorders.
- 3.4.3 Develop and scale up implementation of effective interventions that address social determinants of health among people with and at risk for viral hepatitis.



GOAL 4: IMPROVE VIRAL HEPATITIS SURVEILLANCE AND DATA USAGE

Objective 4.1: Improve public health surveillance through data collection, case reporting, and investigation at the national, state, tribal, local, and territorial health department levels

Strategies:

- 4.1.1 Increase the number of states that include acute and chronic hepatitis B, acute and chronic hepatitis C, and perinatal hepatitis C as reportable conditions and notify CDC of cases that meet the CDC/Council of State and Territorial Epidemiologists case definitions.
- 4.1.2 Facilitate viral hepatitis case reporting to state, local, tribal, and territorial public health departments by aligning with efforts to report other infectious diseases and using electronic case reporting and interoperable health information technology.
- 4.1.3 Improve the quality and completeness of clinical and laboratory viral hepatitis data, including on risk factors, race, ethnicity, and country of birth, reported to public health departments for development of jurisdictional continuums of care.
- 4.1.4 Increase capacity to investigate acute and chronic infections, respond to outbreaks, and capture data related to viral hepatitis risk factors and health outcomes, by cross-training epidemiologic investigators and surveillance staff.
- 4.1.5 Encourage states to make test results that indicate cleared or cured infection reportable, to improve data accuracy and to direct resources appropriately.

Objective 4.2: Improve reporting, sharing, and use of clinical viral hepatitis data

Strategies:

- 4.2.1 Use interoperable health information technology including electronic health records, electronic case reporting, and health information exchange networks to enable effective data and information sharing.
- 4.2.2 Develop and promote standardized data collection strategies and standards-based data elements to collect and share information on viral hepatitis incidence, prevalence, care, treatment, and cure.
- 4.2.3 Encourage and support patient access to and use of individual health information.
- 4.2.4 Integrate patient-generated health information with clinical applications to support patient-centered care.
- 4.2.5 Develop and implement quality improvement processes by regularly monitoring the hepatitis B continuum of care and hepatitis C care cascade.

Objective 4.3: Conduct routine analysis of viral hepatitis data and disseminate findings to inform public health action and the public

Strategies:

- 4.3.1 Increase data analytics and informatics capacity in public health departments to monitor trends over time and among priority populations.
- 4.3.2 Collect and monitor data on viral hepatitis incidence, prevalence, and deaths with hepatitis B and hepatitis C as an underlying or contributing cause.
- 4.3.3 Develop and publish state and local jurisdiction viral hepatitis epidemiologic profiles, and health system and payer patient population profiles.
- 4.3.4 Conduct and publish epidemiologic studies with viral hepatitis data and develop interventions based on the findings of data analyses.
- 4.4.5 Describe and disseminate best practices for data collection, analysis, and use of data.



GOAL 5: ACHIEVE INTEGRATED, COORDINATED EFFORTS THAT ADDRESS THE VIRAL HEPATITIS EPIDEMICS AMONG ALL PARTNERS AND STAKEHOLDERS

Objective 5.1: Integrate programs to address the syndemic of viral hepatitis, HIV, STIs, and substance use disorders

Strategies:

- 5.1.1 Through implementation science research, identify and scale up viral hepatitis prevention, testing, linkage to care (with patient navigation), and treatment in all care settings that address the syndemic.
- 5.1.2 Provide technical assistance and training for health care providers to manage and treat people with comorbidities such as viral hepatitis, HIV, STI, and/or substance use disorders.
- 5.1.3 Integrate resources for categorical programs, address price and coverage barriers, and work collaboratively across organizational departments to encourage cross-cutting programs that address the syndemic.
- 5.1.4 Work to align indicators and integrate surveillance data across programs and clinical service providers that address viral hepatitis, HIV, STI, and substance use disorder services.

Objective 5.2: Establish and increase collaboration and coordination of viral hepatitis programs and activities across public and private stakeholders

Strategies:

- 5.2.1 Establish viral hepatitis strategic planning groups at the local, state, and national levels that include people with viral hepatitis lived experience, to plan and coordinate activities and leverage available resources.
- 5.2.2 Share best practices in engagement and partnership models and strategies with strategic planning groups, advocates, and other partners; publish and disseminate lessons learned.
- 5.2.3 Coordinate and align strategic planning efforts on viral hepatitis, HIV, STIs, and substance use disorders across national, state, and local partners.
- 5.2.4 Encourage development of public-private partnerships to expand education, screening, vaccination, linkage to care, and treatment of viral hepatitis.
- 5.2.5 Improve health department–level coordination of immunizations, perinatal hepatitis B, and adult viral hepatitis policies and programs.

Objective 5.3: Identify, evaluate, and scale up best practices through implementation and communication science research

Strategies:

- 5.3.1 Develop and coordinate basic and translational research efforts across and within agencies to strengthen and maintain a viral hepatitis basic and translational research pipeline.
- 5.3.2 Translate viral hepatitis prevention, screening, treatment, and health disparities research into practice through evaluation, implementation, and communication science.

Objective 5.4: Improve mechanisms to measure, monitor, evaluate, report, and disseminate progress toward achieving organizational, local, and national goals

Strategies:

- 5.4.1 Share viral hepatitis surveillance data with decision-makers, health care providers, and community leaders.
- 5.4.2 Monitor, evaluate, and regularly communicate progress on viral hepatitis strategic goals and objectives according to an established schedule and address areas of deficiency.
- 5.4.3 Reduce reporting burden for funded entities through improved coordination of federal and state program and reporting requirements.

Priority Populations

	Incidence (Acute)	Prevalence (Chronic)	Mortality
Hepatitis A	<ul style="list-style-type: none"> • People who use drugs • People experiencing homelessness 	Not Applicable	
Hepatitis B	<ul style="list-style-type: none"> • People who inject drugs 	<ul style="list-style-type: none"> • Asian and Pacific Islander • Black, non-Hispanic 	<ul style="list-style-type: none"> • Asian and Pacific Islander • Black, non-Hispanic
Hepatitis C	<ul style="list-style-type: none"> • People who inject drugs • American Indian/ Alaska Native 	<ul style="list-style-type: none"> • People who inject drugs • Black, non-Hispanic • People born 1945-1965 • People with HIV 	<ul style="list-style-type: none"> • American Indian/ Alaska Native • Black, non-Hispanic • People born 1945-1965

Indicators

CORE INDICATORS

Measure	Baseline ^a	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Data Source ^b
1. Reduce new hepatitis A infections												
Estimated number of cases	6,700	5,800	5,350	4,900	4,450	4,000	3,700	3,400	3,100	2,800	2,500	NNDSS
2. Reduce acute hepatitis B infections^c												
Estimated number of cases	22,200	20,800	20,100	19,400	18,700	18,000	14,840	11,680	8,520	5,360	2,200	NNDSS
3. Reduce acute hepatitis C infections^c												
Estimated number of cases	44,700	41,467	39,850	38,233	36,617	35,000	28,880	22,760	16,640	10,520	4,400	NNDSS
4. Increase rate of hepatitis B “birth dose” vaccination												
Percentage	67 (2015–2016 baseline)	69	70	71	72	75	78	81	84	87	90	NIS-Child
5. Increase proportion of people with hepatitis B infection aware of their infection^{c,d}												
Rate/100,000	32 (2013–2016 baseline)	-	41	-	-	50	-	-	-	-	90	NHANES
6. Reduce rate of hepatitis B–related deaths^c												
Rate/100,000	0.46	0.44	0.42	0.41	0.39	0.37	0.33	0.29	0.24	0.20	0.16	NVSS
7. Increase proportion of people who have cleared hepatitis C infection^d												
Percentage	43 (2013–2016 baseline)	-	51	-	-	58	-	-	-	-	80	NHANES
8. Reduce rate of hepatitis C–related deaths^c												
Rate/100,000	4.13	3.75	3.57	3.38	3.19	3.00	2.69	2.38	2.06	1.75	1.44	NVSS

^a Data sources use different data collection and reporting methodologies. Unless otherwise indicated, baseline data are for 2017.

^b NHANES = [National Health and Nutrition Examination Survey](#); NIS-Child = [National Immunization Survey-Children](#); NNDSS = [National Notifiable Diseases Surveillance System](#); NVSS = [National Vital Statistics System](#). See below for a description of each data source.

^c This core indicator has a corresponding disparities indicator(s).

^d For Indicators 5 and 7, the sample size of the current annual data is too small to permit a stable estimate of the baseline and annual targets.

DISPARITIES INDICATORS^a

Measure	Baseline ^b	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
9. Reduce acute hepatitis B infections among people who inject drugs											
Reported rate/100,000	1.4	1.3	1.2	1.1	1.1	<u>1.00</u>	0.8	0.6	0.5	0.3	<u>0.10</u>
10. Increase proportion of people with hepatitis B infection aware of their infection among Asian and Pacific Islanders^c											
Percentage	39 (2013–2016 baseline)	-	43	-	-	<u>50</u>	-	-	-	-	<u>90</u>
11a. Reduce rate of hepatitis B–related deaths among Asian and Pacific Islanders											
Reported rate/100,000	2.45	2.25	2.15	2.04	1.94	<u>1.84</u>	1.64	1.45	1.25	1.06	<u>0.86</u>
11b. Reduce rate of hepatitis B–related deaths among non-Hispanic Blacks											
Rate/100,000	0.74	0.68	0.65	0.61	0.58	<u>0.55</u>	0.49	0.43	0.38	0.32	<u>0.26</u>
12a. Reduce acute hepatitis C infections among people who inject drugs											
Reported rate/100,000	2.30	2.1	2.0	1.9	1.8	<u>1.70</u>	1.40	1.10	0.80	0.50	<u>0.20</u>
12b. Reduce acute hepatitis C infections among AI/AN											
Reported rate/100,000	2.90	2.7	2.6	2.4	2.3	<u>2.20</u>	1.82	1.44	1.05	0.67	<u>0.29</u>
13a. Reduce rate of hepatitis C–related deaths among AI/AN											
Rate/100,000	10.24	9.22	8.71	8.19	7.68	<u>7.17</u>	6.45	5.73	5.02	4.30	<u>3.58</u>
13b. Reduce rate of hepatitis C-related deaths among non-Hispanic Blacks											
Rate/100,000	7.03	6.33	5.98	5.82	5.27	<u>4.92</u>	4.43	3.94	3.44	2.95	<u>2.46</u>

^a Disparities indicators use the same data source as its corresponding core indicator.

^b Unless otherwise indicated, baseline data are for 2017.

^c For Indicator 10, the sample size of the current annual data is too small to permit a stable estimate of the baseline and annual targets.

DEVELOPMENTAL INDICATORS

1. Reduce new hepatitis A infections
 - among people who use drugs
 - among people experiencing homelessness
2. Reduce proportion of states with hepatitis C treatment restrictions in their state Medicaid policies (including liver damage, sobriety, or prescriber restrictions)
3. Increase proportion of people with hepatitis C coinfecting with HIV treated and cured of hepatitis C
4. Increase the completeness of data values in reported acute and chronic viral hepatitis cases from state and local health departments to CDC
5. Increase proportion of people who have cleared hepatitis C infection
 - among people who inject drugs
 - among non-Hispanic Blacks
 - among people born from 1945 through 1965

The full Viral Hepatitis National Strategic Plan and additional resources are posted at hhs.gov/hepatitis