From Prevention to Cure: The Role of Public Health Nurses in Hepatitis C Elimination

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Kentucky Public Health
Prevent. Promote. Protect.

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TEAM KENTUCKY
CABINET FOR HEALTH AND FAMILY SERVICES

Content Acknowledgment

- We will be having frank discussions of substance use/misuse, Substance Use Disorder (SUD), infectious disease, and stigma/discrimination that people who use drugs (PWUD) and/or people with hepatitis C experience.
- Statistically speaking, there will be people in this space who have experienced and/or whose lives have been impacted by substance use, Substance Use Disorder, and/or hepatitis C.
- There will also be a wide variety of knowledge of these topics in the space.
- Please take care of yourself however you need.

Kentucky Needs You

The elimination of hepatitis C in Kentucky depends on the efforts of

Public Health Nurses and Local Health Departments

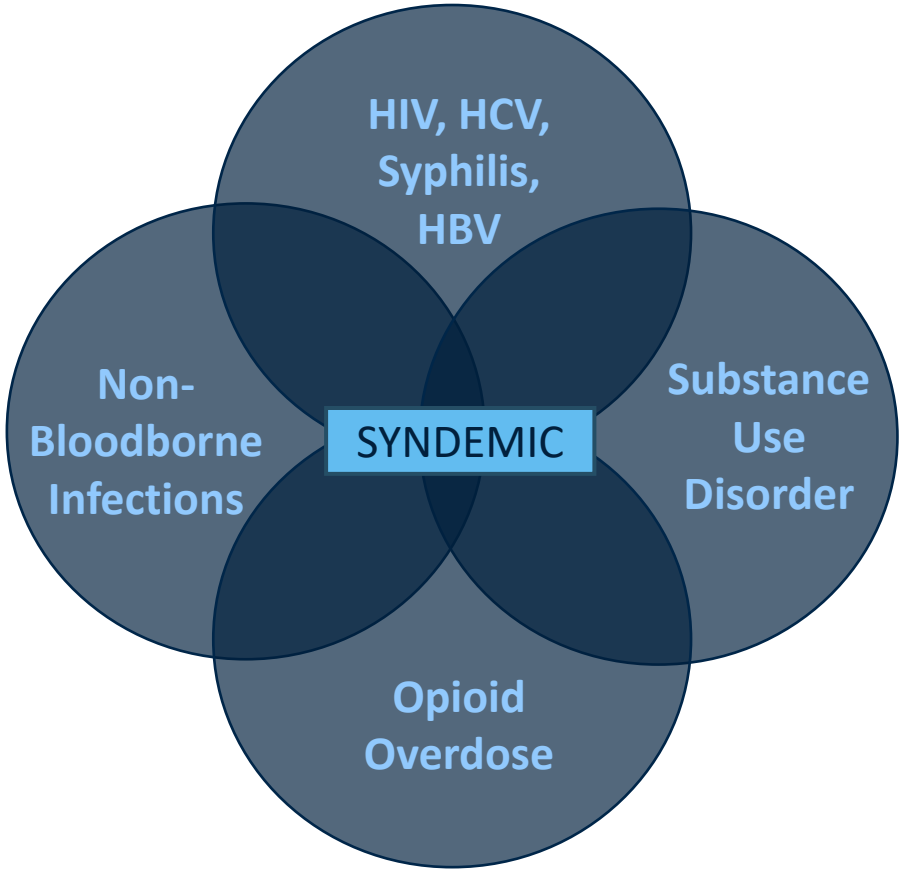
Objectives

By the end of this presentation, participants will be able to

1. Describe the current epidemiology of hepatitis C in Kentucky, including trends, risk factors, and priority populations.
2. Explain the roles of public health nurses and local health departments (LHDs) in advancing hepatitis C elimination across Kentucky communities.
3. Identify 3 effective community-based and evidence-based interventions that support hepatitis C prevention, testing, and treatment.
4. Examine local collaborative partnerships and community resources to address barriers and strengthen linkage to care efforts.

Making Connections: Syndemic

- Injection drug use and opioid use are risk factors for Substance Use Disorder, overdose, Hepatitis C Virus (HCV), HIV, Hepatitis B Virus (HBV), syphilis, etc.
- If we're working with someone who uses drugs, we are working with someone who is at risk of all of these risk factors.
- We need to be providing education, increasing access to care, and *decreasing stigma* for all aspects of the syndemic.



Local Health Departments: Leaders in Hepatitis C Elimination

According to National Association of County and City Health Officials (NACCHO, 2020):

*"**LHDs are local leaders in the prevention, detection, and treatment of viral hepatitis.** Nearly all reported providing HAV and HBV vaccination (97%, 92%) and 43% offer or fund syringe services programs. Most LHDs offer or fund HBV and HCV testing (62%, 88%), linkage to HBV and HCV care (67%, 78%), and one-third (33%) provide or fund HCV treatment. LHDs also promote hepatitis services by conducting outreach and education to the community (88%) and local healthcare providers (76%)."*

Local Health Departments as Leaders in the Prevention & Elimination of Viral Hepatitis – NACCHO https://www.naccho.org/blog/articles/local-health-departments-as-leaders-in-the-prevention-elimination-of-viral-hepatitisCCHO

Public Health Nurses: Well-Positioned to Lead Hepatitis C Elimination Efforts

PHN PUBLIC HEALTH NURSING

POPULATION STUDY | Open Access

A community-based participatory research approach to evaluating and improving hepatitis C risk, knowledge, and stigma associations among people who inject substances in Indiana

Brennan Woodward MS, Krystina Millar MS, Gregory Carter PhD

First published: 02 July 2024 | https://doi.org/10.1111/phn.13364

Those at increased risk of HCV should be educated through targeted campaigns that take an intersectional approach, ideally incorporating information about current HCV treatments while managing enacted stigma. Nurses are well-positioned to lead these efforts to prevent HCV and should have readily available continuing education opportunities to advance their HCV knowledge and the populations most impacted. Moreover, nurses are in a favorable position to enhance healthcare environments and cultures that engage with PWIS, those living with addiction, and HCV in a respectful manner that is geared toward harm reduction. Nurses could also expand their conversations with patients, particularly regarding sexual practices and substance use, to help identify behaviors that increase the risk for HCV. Identifying these risks could lead to increased linkage to care. Finally, it is essential that public health, nursing, and hospital policies are developed to reduce the barriers faced by individuals at risk for HCV, including primary healthcare services and the HCV continuum of care.

A community-based participatory research approach to evaluating and improving hepatitis C risk, knowledge, and stigma associations among people who inject substances in Indiana - Woodward - 2024 - Public Health Nursing - Wiley Online Library

Public Health Nurses and LHDs Can…

1. Improve Hepatitis C Awareness and Education
2. Perform Hepatitis C Testing
3. Provide Hepatitis C Treatment and/or Linkage to Hepatitis C Care
4. Address Barriers to Hepatitis C Care

Hepatitis C Basics

What is Hepatitis C?

- HCV (hepatitis C virus) or “hep C”
- A viral infection
- Spread when someone comes into contact with blood from a person who is infected with hepatitis C[4]
- A leading infectious cause of death in US[18]
- Leading cause of liver cancer and liver transplants[4]

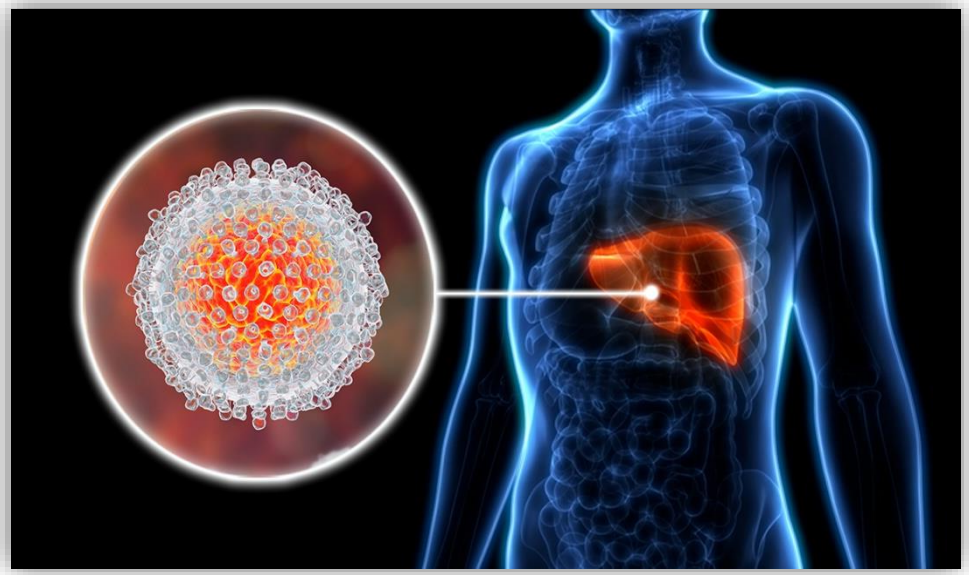
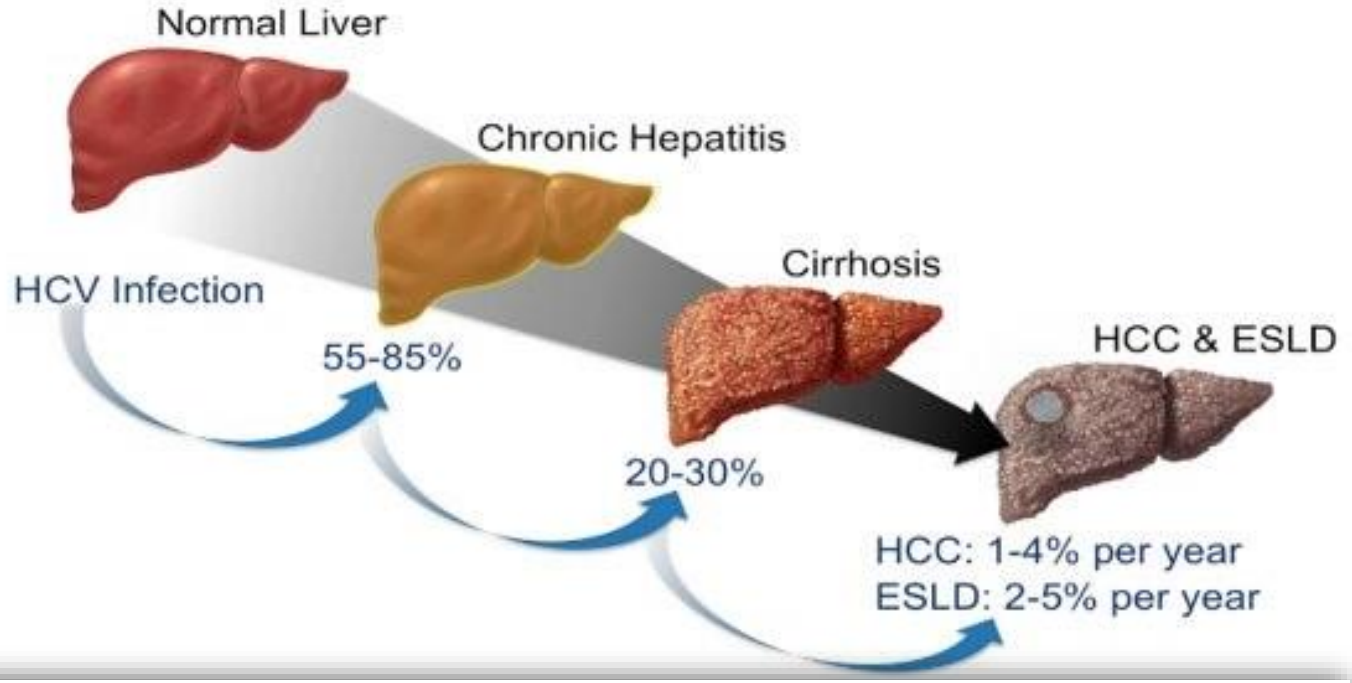


Image: cdc.gov/hepatitis-c/index.html

Hepatitis C and Liver Disease



https://www.hepatitis.va.gov/hcv/background/natural-history.asp

UK HealthCare

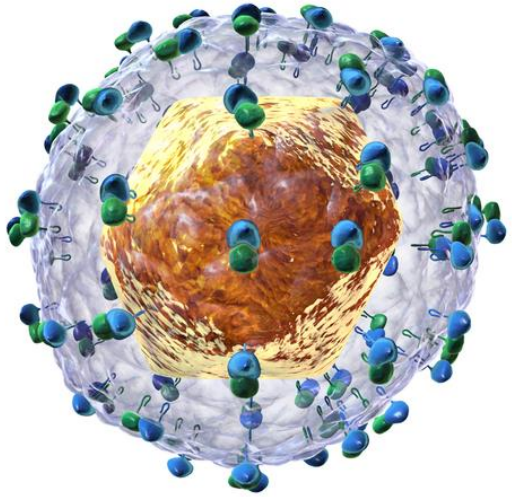
UK Transplant Center performs record number of liver transplants in 2024

By Hilary Brown Jan. 21, 2025

https://uknow.uky.edu/uk-healthcare/uk-transplant-center-performs-record-number-liver-transplants-2024

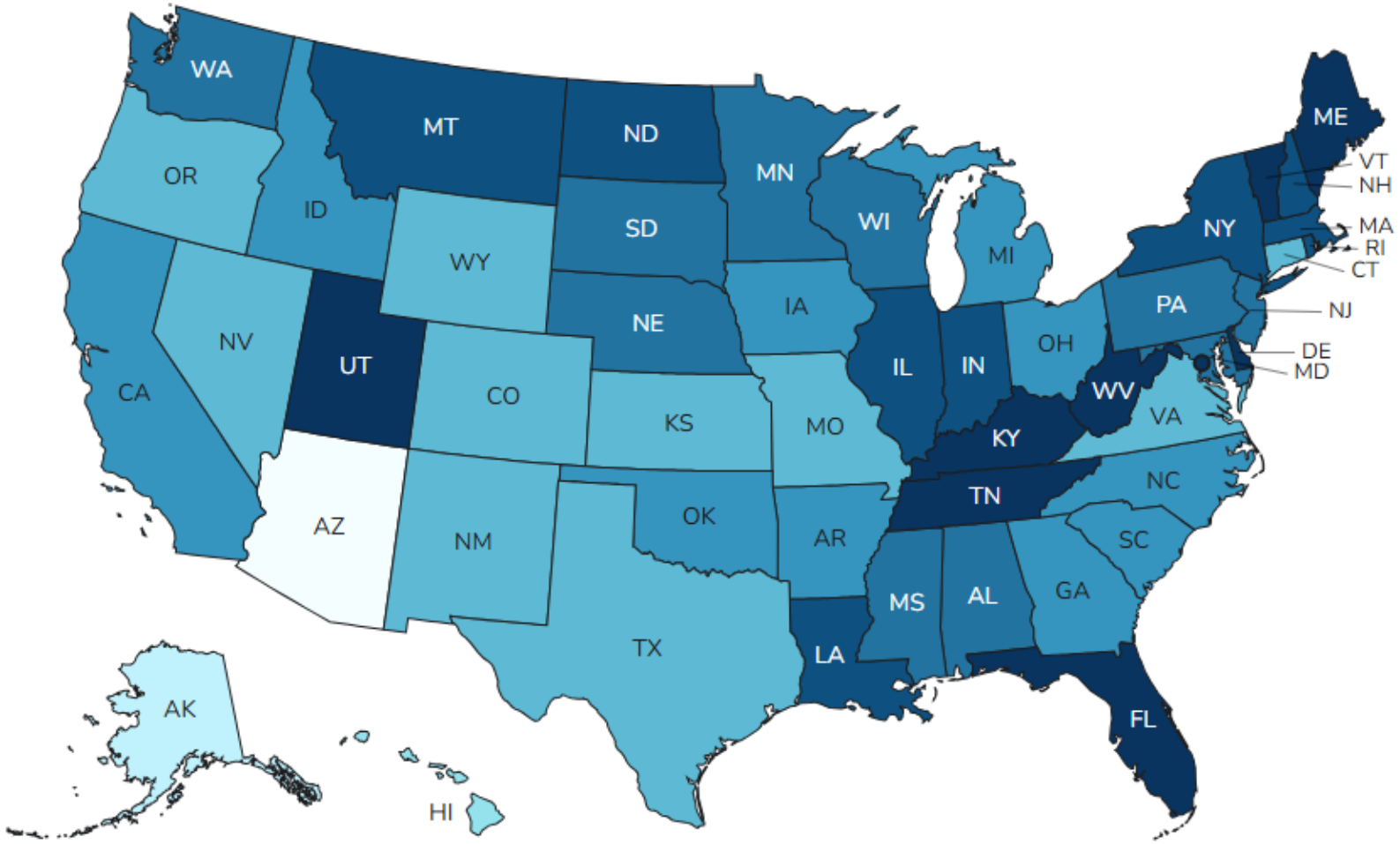
Hepatitis C Prevalence

- **Hepatitis C**
  - Hepatitis C Virus (HCV) is the most common blood-borne pathogen[2]
  - Affects approximately 58 million people worldwide[2]
  - Affects 1-2% of people in the United States[2]
  - Accounts for the greatest number of deaths and highest mortality rate of all viral hepatitis (A, B, and C)[2]



Hepatis C Virus (HCV)

United States: Acute Hepatitis C Case Rates by State/Jurisdiction, 2023



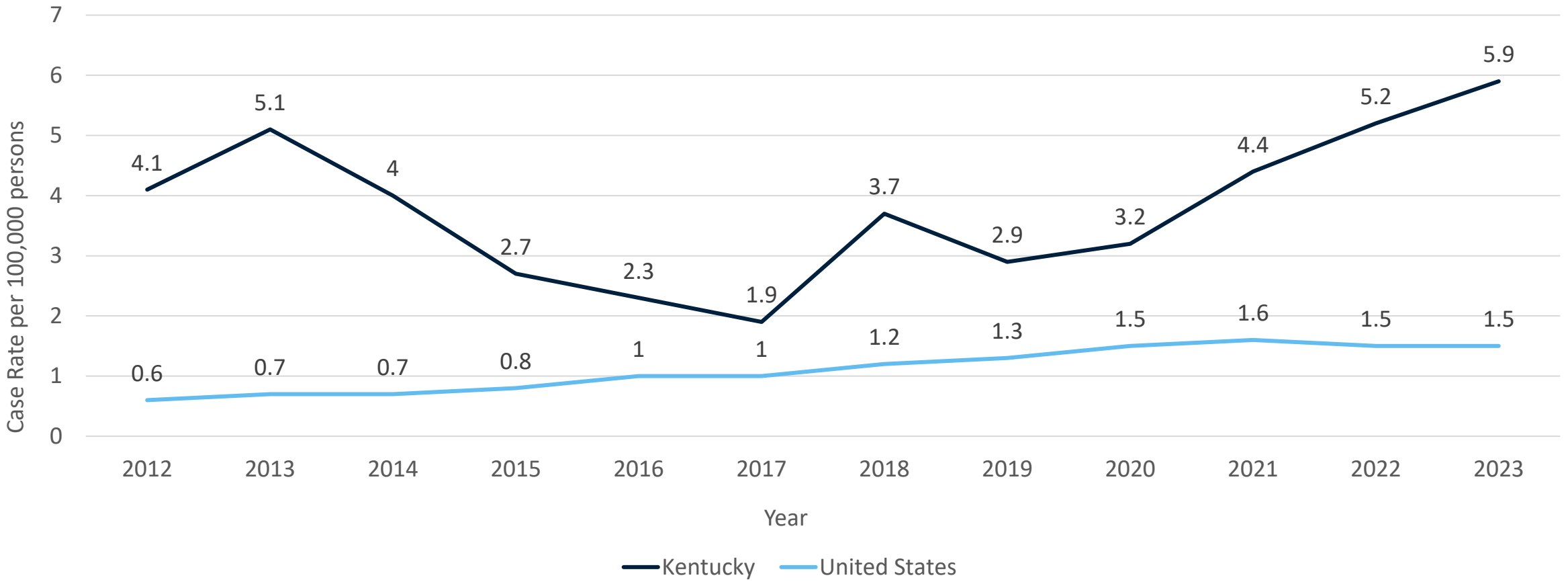
Kentucky's 2023 acute HCV case rate is third highest in the United States.

Cases per 100,000 population

- Data unavailable (U)
- Not reportable (NR)
- No reported cases (N)
- >0.0–0.4
- 0.5–0.7
- 0.8–1.3
- 1.4–2.8
- 2.9–6.8

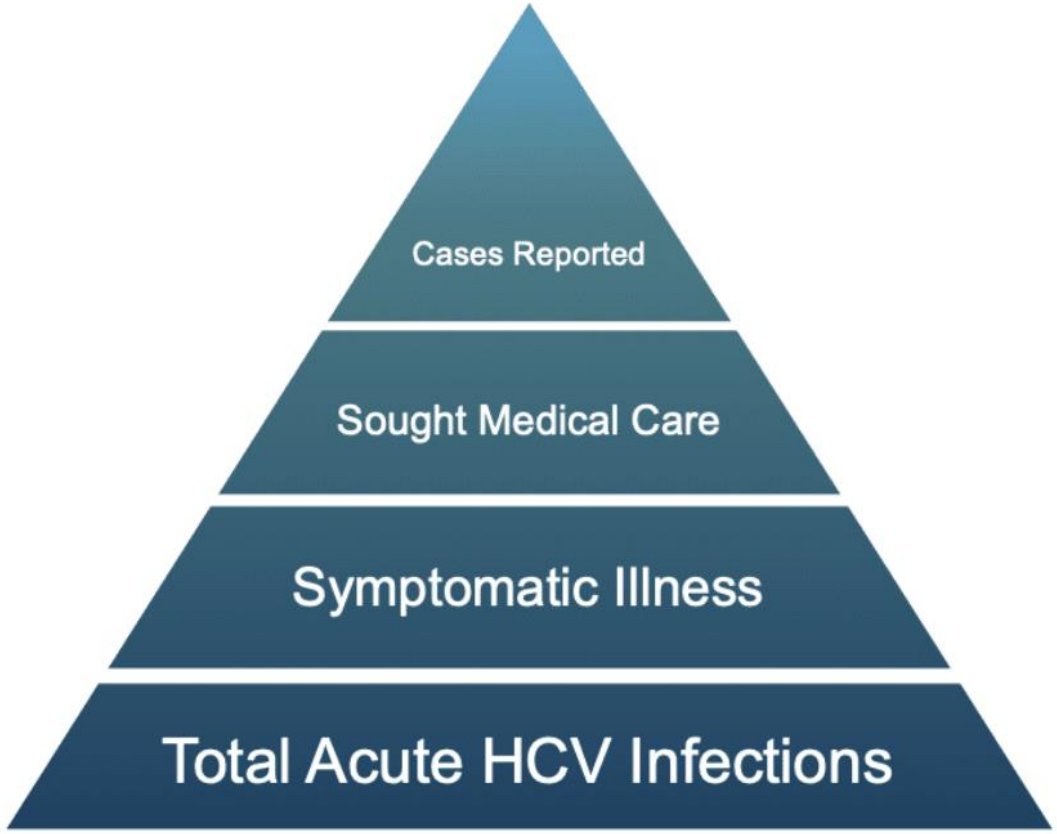
Centers for Disease Control and Prevention. Viral Hepatitis Surveillance Report – United States, 2023. https://www.cdc.gov/hepatitis-surveillance-2023/about/index.html Published April 2025. Accessed [April 16, 2025].

Kentucky and The United States, Acute Hepatitis C Case Rates, 2012 – 2023



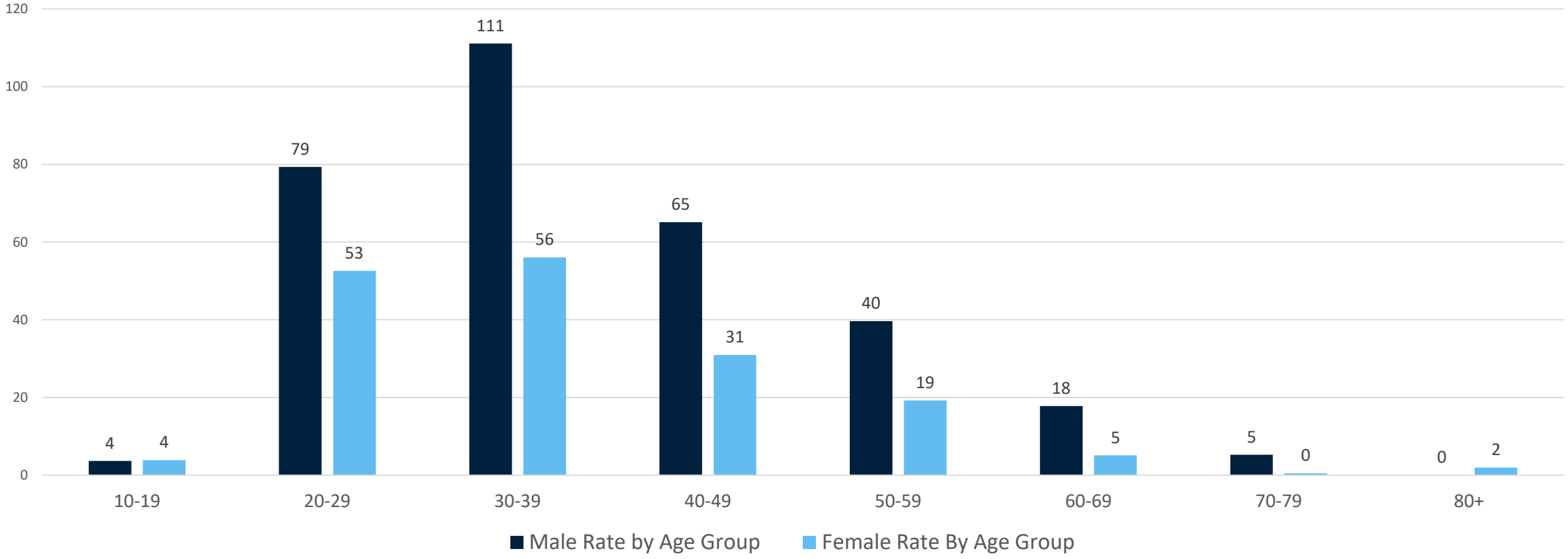
Kentucky Department for Public Health, Viral Hepatitis Program, Centers for Disease Control and Prevention. Viral Hepatitis Surveillance Report – United States, 2023. https://www.cdc.gov/hepatitis-surveillance-2023/about/index.html Published April 2025. Accessed [April 16, 2025].

Reported Cases Versus Actual Infections



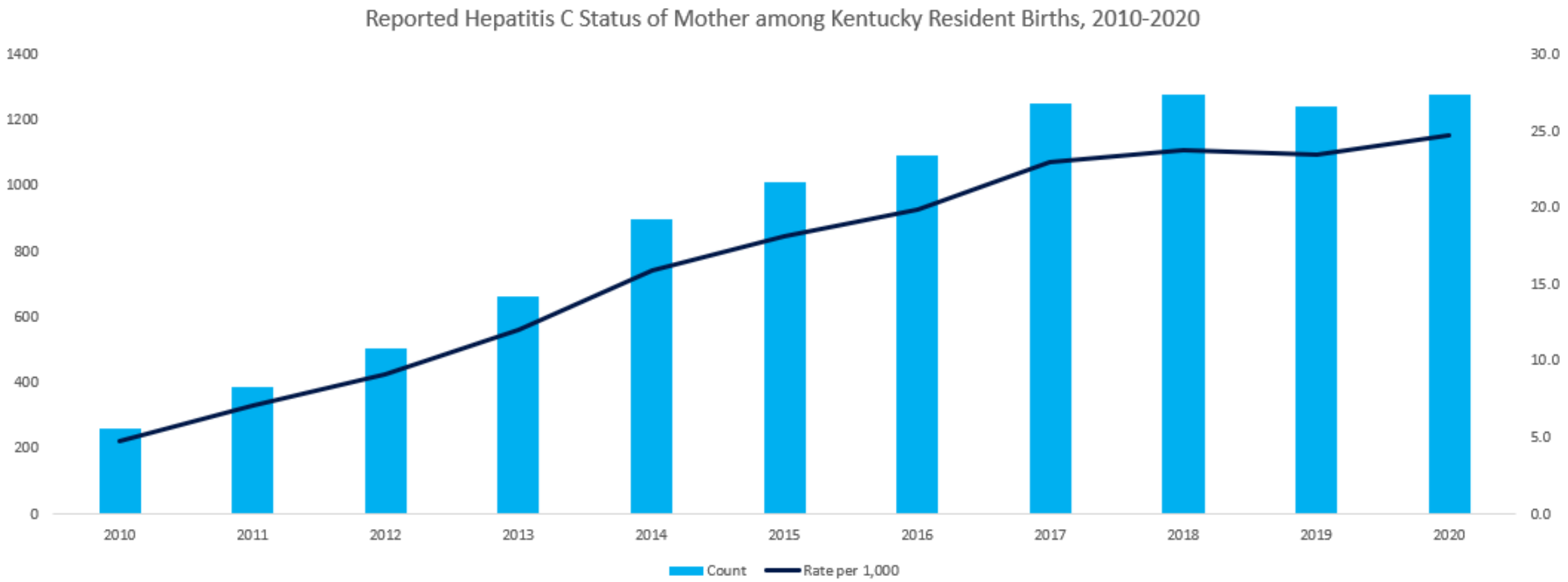
Core Concepts - HCV Epidemiology in the United States - Screening and Diagnosis of Hepatitis C Infection - Hepatitis C Online
Source: modified from Klevens RM, Liu S, Roberts H, Jiles RB, Holmberg SD. Estimating acute viral hepatitis infections from nationally reported cases. Am J Public Health. 2014;104:482-7.

Acute Hepatitis C Case Rate Per 100K by Age and Sex, Kentucky, 2015-2023



Annual Estimates of the Resident Population for Counties in Kentucky: April 1, 2020, to July 1, 2023 (CO-EST2023-POP-21), U.S. Census Bureau, Population Division; Kentucky Department for Public Health, Viral Hepatitis Program

Kentucky: Perinatal HCV Exposure



KDPH, Office of Vital Statistics

Risk Factors

- Injection drug use is the most commonly reported risk factor for hepatitis C[11]
- It is estimated that around 40% of people with recent history of injecting drug use are living with hepatitis C

Reported risk behaviors or exposures among reported cases* of acute hepatitis C — United States, 2022

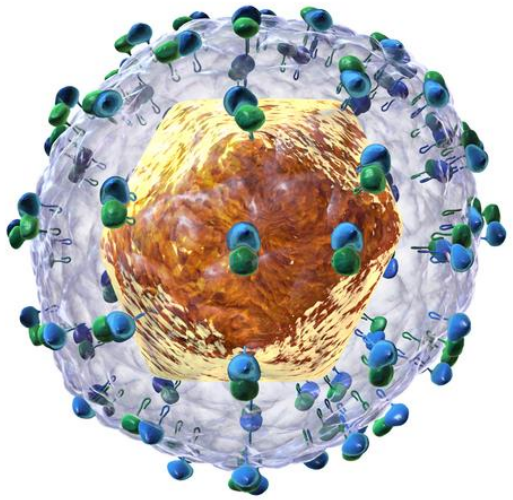
Print

◀ Table 3.2 | Table 3.4 ▶

Risk behaviors/exposures†	Risk identified*	Risk not identified	Risk data missing
Injection drug use	834	761	3,253
Multiple sexual partners	164	467	4,217
Surgery	177	767	3,904
Men who have sex with men§	88	236	2,903
Sexual contact¶	63	339	4,446
Needlestick	65	811	3,972
Household contact (nonsexual)¶	12	390	4,446
Occupational	6	1,045	3,797
Dialysis patient	101	1,080	3,667
Transfusion	5	957	3,886

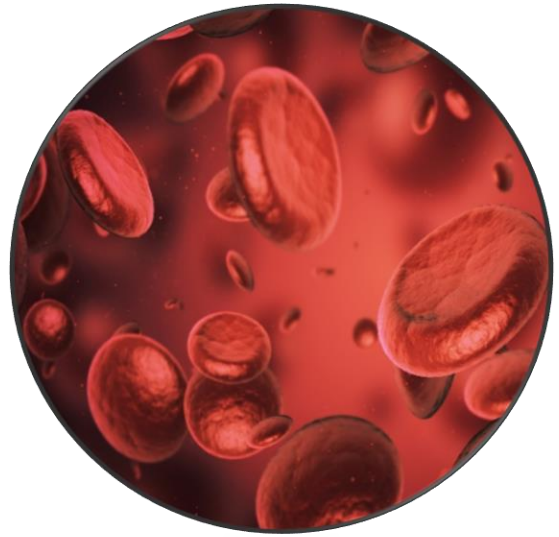
Image: https://www.cdc.gov/hepatitis/statistics/2022surveillance/hepatitis-c/table-3.3.htm
https://www.natap.org/2024/HCV/estimating_hepatitis_c_prevalence_in_the_united.878.pdf

Hepatitis C Transmission



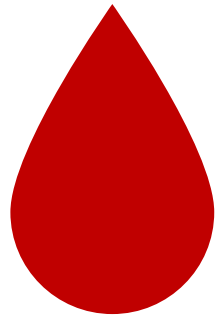
Hepatis C Virus (HCV)

- Hepatitis C is spread when someone comes into contact with blood from a person with hepatitis C infection.[4]
- The hepatitis C virus can live outside of the body for up to **six weeks.**[22]
- Transmission can be microscopic amounts of blood (you may not be able to see it).



Hepatitis C Transmission

- Using non-sterile equipment to prepare and/or inject, inhale, or smoke illicit substances
- Tattooing/piercing using non-sterile equipment or procedures
- Sexual contact, especially when blood is present
- Medical procedures with non-sterile equipment
- Needle-stick injuries
- Exposure of infants during pregnancy or birth
- Sharing toothbrushes, razors, nail clippers



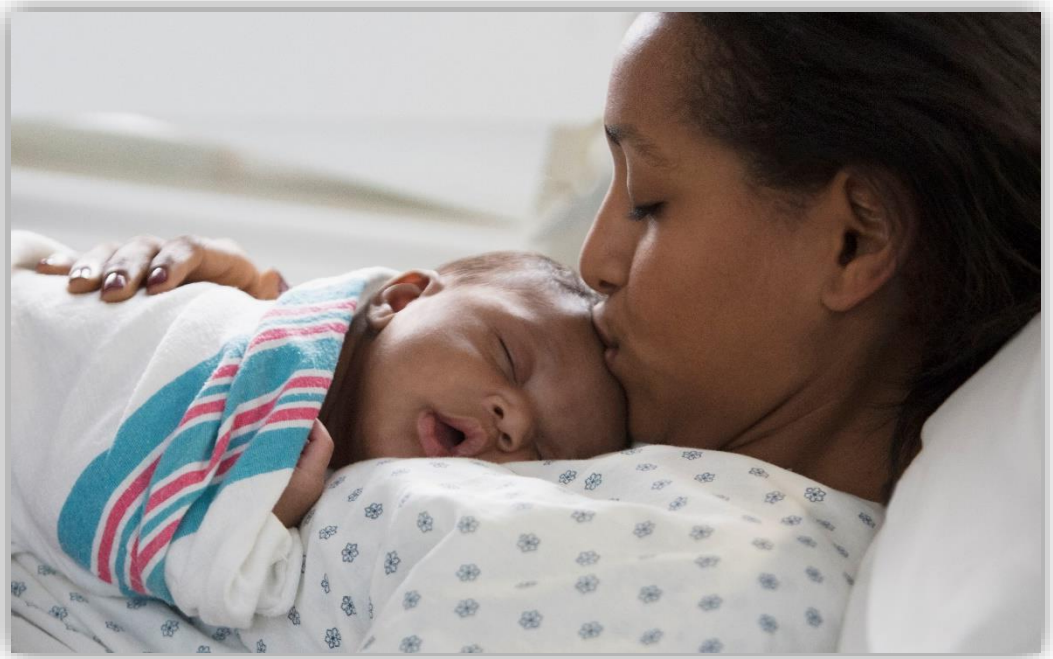
HCV Testing and Linkage to Care | HCV Guidance

Transmission, Cont.

- **Hepatitis C can NOT be transmitted by sharing clothing, eating utensils or food/drinks, coughing, hugging, holding hands, kissing, breastfeeding.**[5]

Hepatitis C and Breastfeeding

- According to the CDC, **it is safe to breastfeed** if infected with hepatitis C
- There is **no documented evidence** that breastfeeding spreads HCV
- If nipples or surrounding area are cracked or bleeding, *breastfeeding should cease **temporarily** until breasts have healed*



https://www.cdc.gov/breastfeeding-special-circumstances/hcp/illnesses-conditions/hepatitis-b-c.html

Perinatal Hepatitis C Transmission

- ***Perinatal***
  - The period before, during, or shortly after birth
  - Refers to both birthing person and baby
- Chronic HCV infection will develop in ~6% of all infants exposed during pregnancy or delivery
- Most common route of hepatitis C transmission in children
- Hepatitis C treatment can begin at 3 years old

publications.aap.org/aapnews/news/27131/CDC-calls-for-early-testing-for-hepatitis-C-virus?autologincheck=redirected

Lack of Perinatal Hepatitis C Care

- **Often, infants/children that are exposed during pregnancy/birth are not tested or referred for hep C care.**
  - Lack of awareness of perinatal exposure by pediatric providers
  - Lack of regular pediatric care
  - Changes in providers
  - Changes in living situations (i.e. foster care, kinship)
- **If left untreated, child could have lifelong liver problems**

publications.aap.org/aapnews/news/27131/CDC-calls-for-early-testing-for-hepatitis-C-virus?autologincheck=redirected

Symptoms of Hepatitis C

- Can include stomach pain, jaundice, feeling tired, dark urine or clay-colored stool
- Can take decades to develop
- Keep in mind:
  - Even without symptoms, you may still have hepatitis C and can pass the virus to someone else
  - Liver damage could be occurring at any time during infection

cdc.gov/hepatitis-c/signs-symptoms/index.html

Many people with chronic hepatitis C have NO symptoms for a long time.

The only way to know if you have hepatitis C is to GET TESTED

cdc.gov/hepatitis-c/signs-symptoms/index.html

Hepatitis C Testing

CDC Hepatitis C Testing Guidelines - 2020

Every adult should be tested at least once.

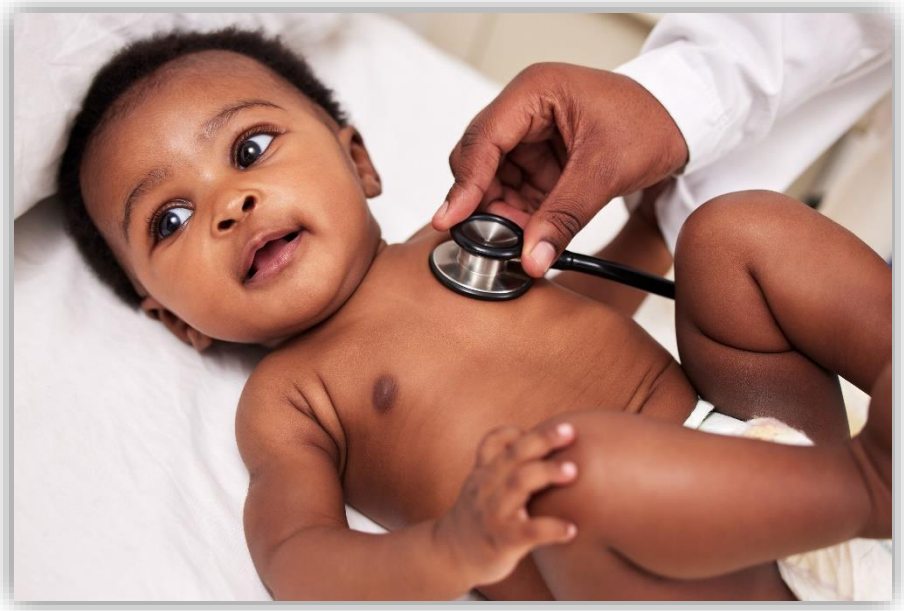
Testing should occur during every pregnancy.

People with risk factors should be tested regularly.

cdc.gov/hepatitis-c/testing/index.html

Testing for Infants Exposed During Pregnancy

- All babies exposed during pregnancy should get a hepatitis C RNA test when they are **2-6 months old**
  - Babies may be more likely to get pediatric care in the first 6 months of life
- If the infant tests positive, they should be linked to care with a provider with pediatric hepatitis C expertise
- They may receive hepatitis C treatment at 3 years old



cdc.gov/nchhstp/director-letters/perinatal-hepatitis-c-testing-recommendations.html

Universal, Opt-Out Hepatitis C Testing

Hepatitis C Testing should be offered at each visit

Risk Activities, Exposures, Circumstances

- **Impact of opt-out HCV testing** - people will not always disclose risk factors

Risk Activities

- Injection drug use (current or ever, including those who injected only once)
- Intranasal illicit drug use
- Use of glass crack pipes
- Male engagement in sex with men
- Engagement in chem sex (defined as the intentional combining of sex with the use of particular nonprescription drugs in order to facilitate or enhance the sexual encounter [Bourne, 2015])

Other Conditions and Circumstances

- HIV or HBV infection
- Sexually active persons about to start pre-exposure prophylaxis (PrEP) for HIV
- Chronic liver disease and/or chronic hepatitis, including unexplained elevated alanine aminotransferase (ALT) levels
- Solid organ donors (living and deceased) and solid organ transplant recipients

Risk Exposures

- Persons on long-term hemodialysis (ever)
- Persons with percutaneous/parenteral exposures in an unregulated setting
- Healthcare, emergency medical, and public safety workers after needlestick, sharps, or mucosal exposure to HCV-infected blood
- Children born to HCV-infected women
- Recipients of a prior transfusion or organ transplant, including persons who:
  - Were notified that they received blood from a donor who later tested positive for HCV
  - Received a transfusion of blood or blood components, or underwent an organ transplant before July 1992
  - Received clotting factor concentrates produced before 1987
- Persons who were ever incarcerated

AASLD/IDSA Recommendations: hcvguidelines.org/evaluate/testing-and-linkage

Hepatitis C Testing: Phlebotomy

- Phlebotomy: a needle is used to take blood from a vein
  - Requires specific training and/or certification
  - Usually, blood is sent to an outside lab; results can take days or weeks
  - Can be done to test for hepatitis C antibodies and RNA to confirm whether someone has an active hepatitis C infection and needs treatment
  - Can be performed in the Local Health Department's Public Health Clinic, Harm Reduction Program, mobile unit, an outside lab, etc. depending on the facility's policies
  - Can be done up to every 3 months for people with ongoing risk factors, such as substance use

cdc.gov/hepatitis-c/testing/index.html

Point-of-Care HCV Antibody Testing

- "Point-of-Care" (POC): the results are provided in the same visit as the test
- **OraSure OraQuick® HCV Rapid Antibody Test** can tell whether someone has been exposed to hepatitis C
  - Uses a fingerstick to take blood
  - Can be performed by trained Harm Reduction Staff, per facility's policies
  - **Should be offered at each Syringe Services Program (SSP) visit**
  - Can be done up to every 3 months for people with ongoing risk factors, such as substance use

OraQuick Hepatitis C Test

Approved in 2024: Point-of-Care HCV RNA Testing

- **Cepheid CLIA Waived Xpert® Point-of Care HCV RNA (Confirmatory)Test**
  - Authorized by FDA in 2024
  - Fingerstick can be done by trained staff
  - RNA Results in 41-60 minutes: Can tell whether someone has active infection and needs treatment
  - Can reduce time and steps to hepatitis C treatment

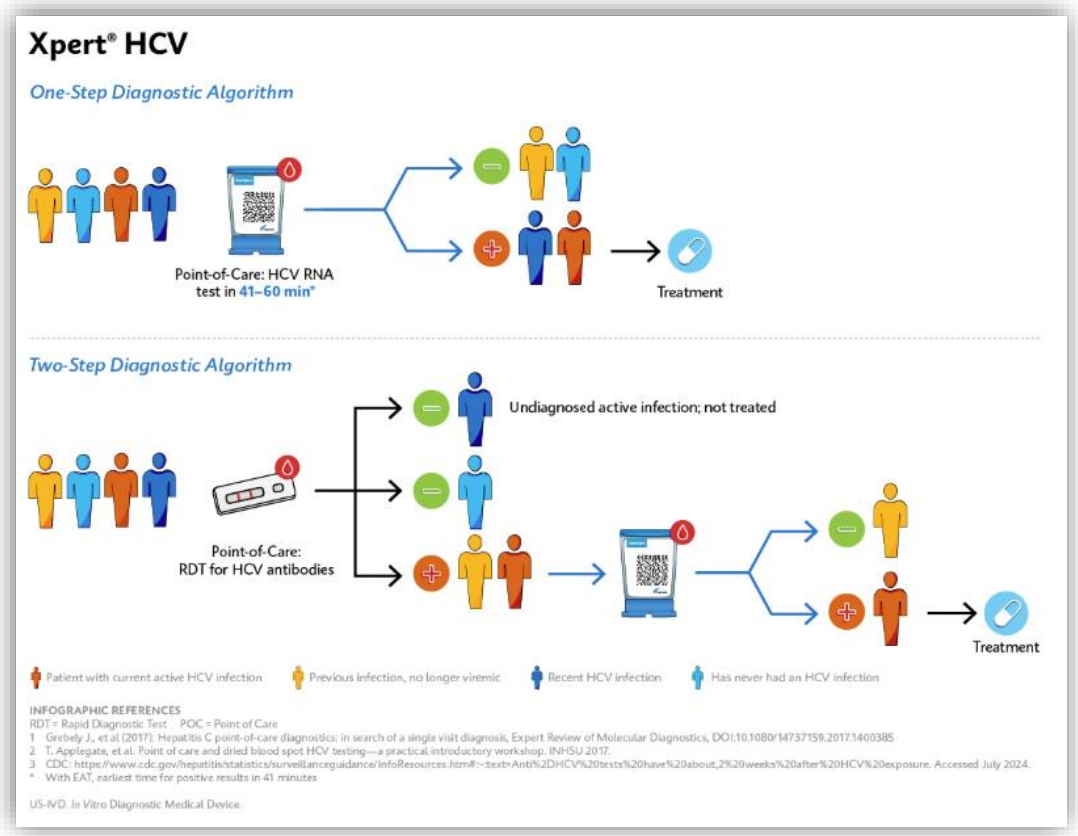
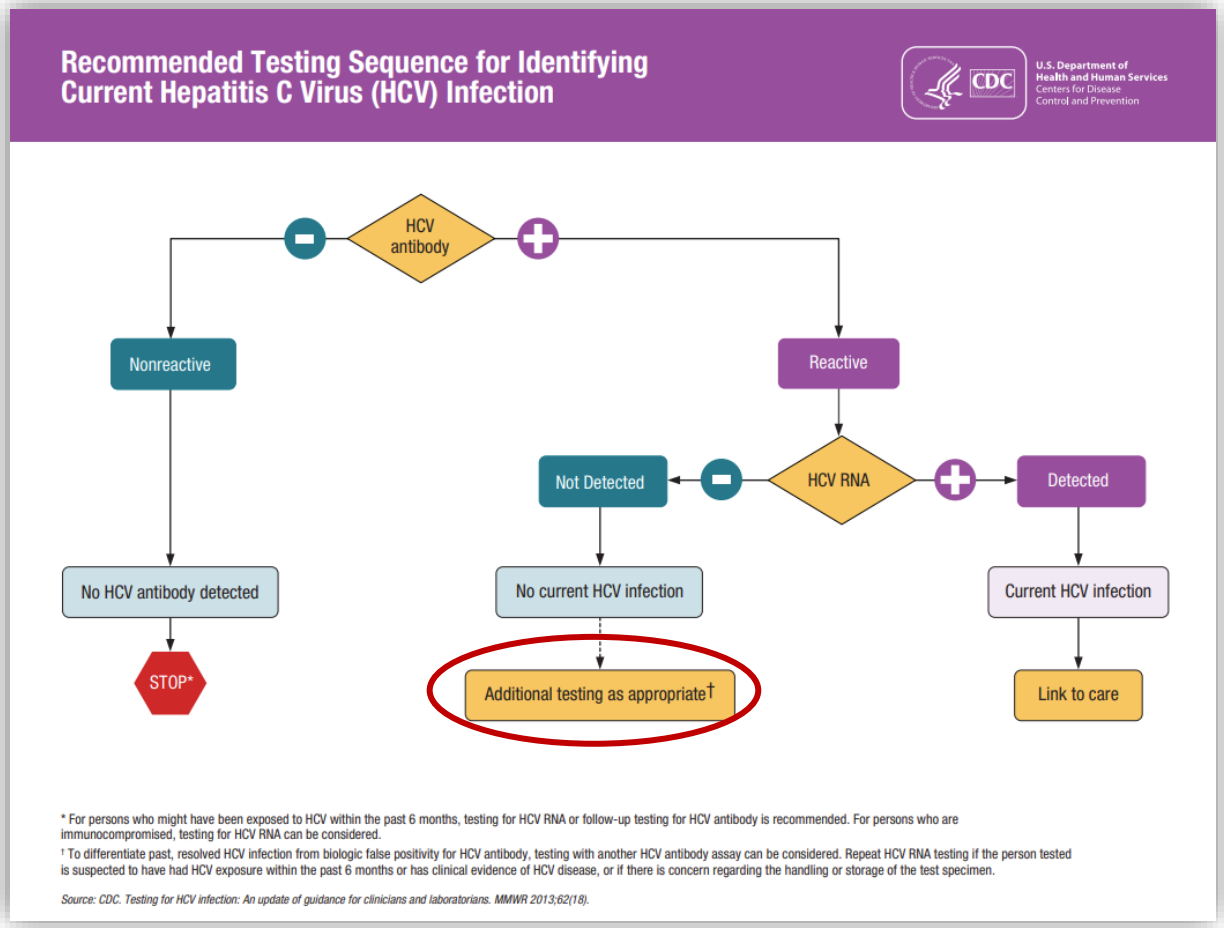


Image from: Xpert HCV

Negative HCV RNA Test: Education

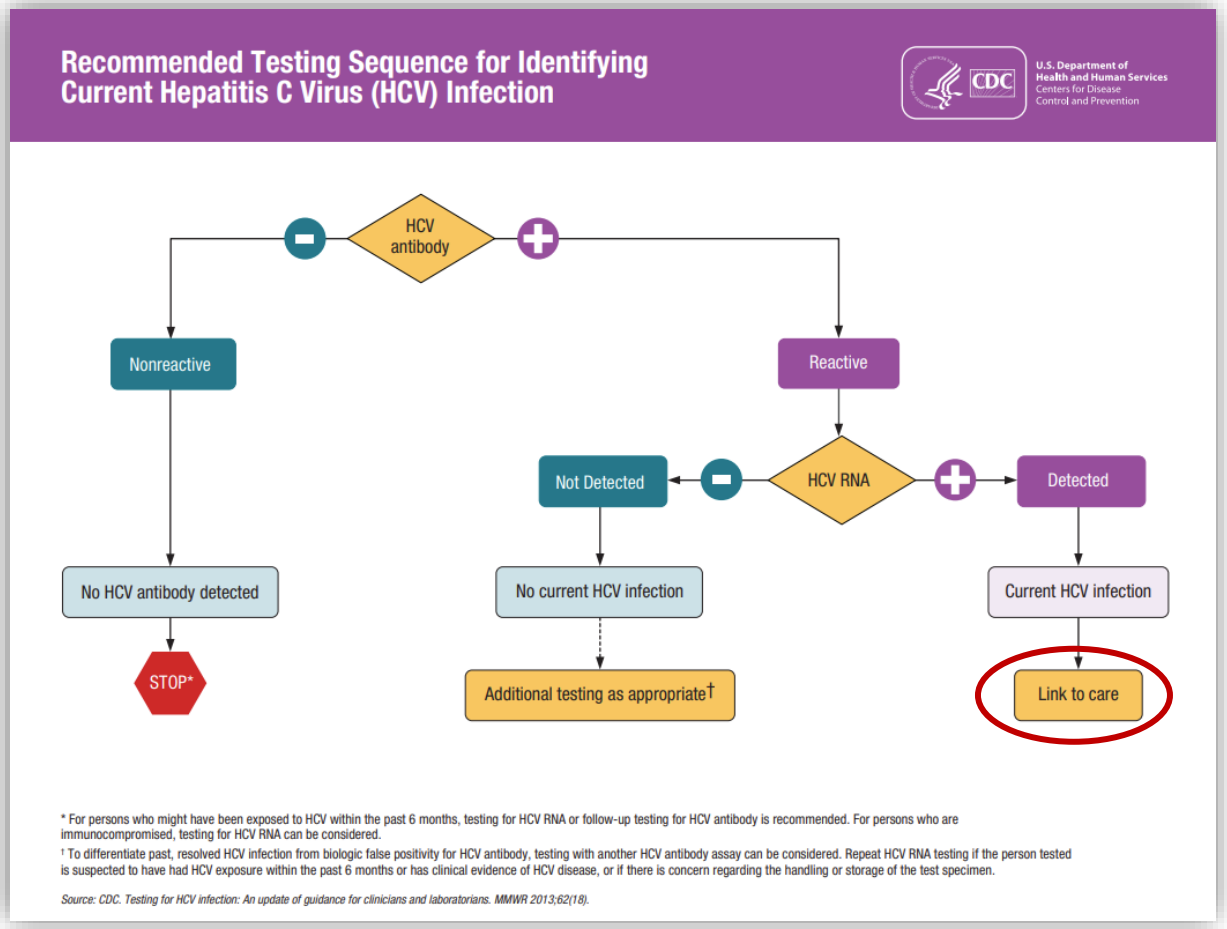
- **Education**
  - If recently exposed, retest
  - **Harm reduction**
    - » prevent transmission
  - **Vaccination** (hep A/B)
  - **Regular testing** if ongoing risk factors



https://www.cdc.gov/hepatitis-c/hcp/diagnosis-testing/index.html

Positive HCV RNA Test: Linkage

- **Education**
  - **Harm reduction**
    - » prevent transmission
    - » *reduce liver disease progression*
  - **Vaccination** (hep A/B)
- **Pretreatment labs/tests are needed**
- **Linkage to treatment** *(not just referral)*

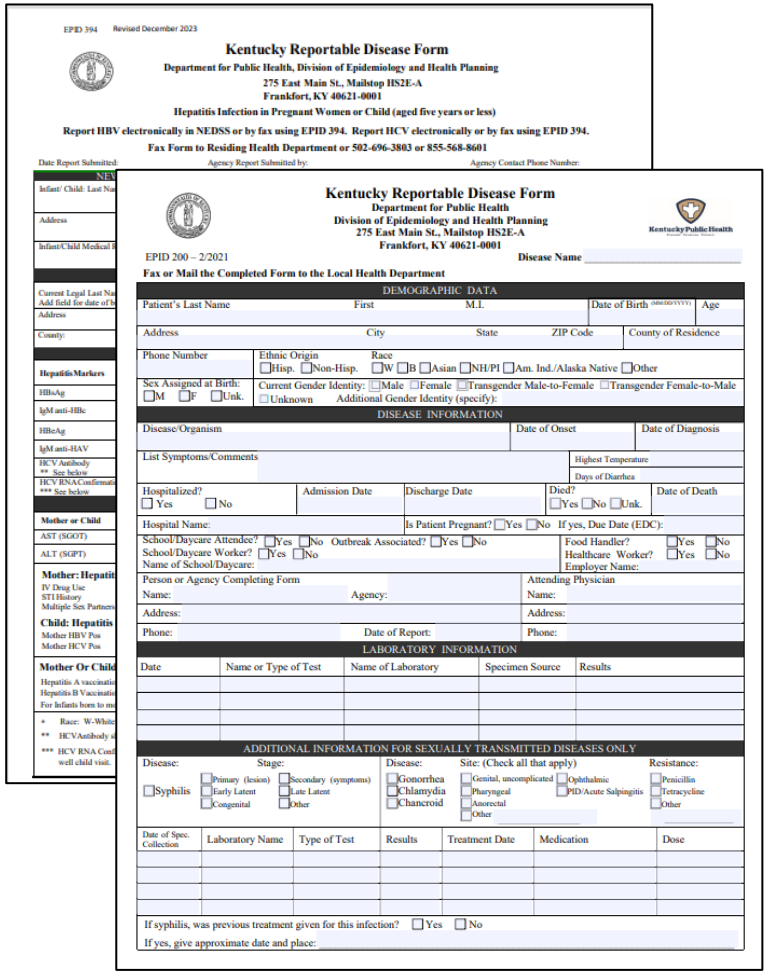


https://www.cdc.gov/hepatitis/hcv/pdfs/hcv_flow.pdf

Transition to Electronic Reporting

Reportable hepatitidies

- Historically paper or PDF: EPID 394 or EPID 200
- **NEW: DDE (Direct Data Entry) Forms via KHIE** (Kentucky Health Information Exchange)
  - Adult Acute hepatitis A, B, C
  - Positive Pregnant Female - HCV
  - Perinatal Hepatitis C (child)


EPID 394 Revised December 2023

Kentucky Reportable Disease Form

Department for Public Health, Division of Epidemiology and Health Planning
275 East Main St., Mailstop HS2E-A
Frankfort, KY 40621-0001

Hepatitis Infection in Pregnant Women or Child (aged five years or less)

Report HBV electronically in NEDSS or by fax using EPID 394. Report HCV electronically or by fax using EPID 394.
Fax Form to Residing Health Department or 502-696-3803 or 855-568-8601

Kentucky Reportable Disease Form

Department for Public Health
Division of Epidemiology and Health Planning
275 East Main St., Mailstop HS2E-A
Frankfort, KY 40621-0001

EPID 200 – 2/2021

Disease Name

Fax or Mail the Completed Form to the Local Health Department

DEMOGRAPHIC DATA

Patient's Last Name | First | M.I. | Date of Birth | Age

Address | City | State | ZIP Code | County of Residence

Phone Number | Ethnic Origin | Race

Sex Assigned at Birth: | Current Gender Identity: | Additional Gender Identity (specify):

DISEASE INFORMATION

Disease/Organism | Date of Onset | Date of Diagnosis

List Symptoms/Comments | Highest Temperature | Days of Diarrhea

Hospitalized? | Admission Date | Discharge Date | Died? | Date of Death

Hospital Name: | Is Patient Pregnant? | If yes, Due Date (EDC):

School/Daycare Attendee? | Outbreak Associated? | Food Handler? | Healthcare Worker? | Employer Name:

School/Daycare Worker? | Name of School/Daycare:

Person or Agency Completing Form | Attending Physician

Name: | Agency: | Name:

Address: | Address:

Phone: | Date of Report: | Phone:

LABORATORY INFORMATION

Date | Name or Type of Test | Name of Laboratory | Specimen Source | Results

ADDITIONAL INFORMATION FOR SEXUALLY TRANSMITTED DISEASES ONLY

Disease: | Stage: | Disease: | Site: (Check all that apply) | Resistance:

Syphilis | Primary (lesion) | Secondary (symptoms) | Early Latent | Late Latent | Congenital | Other

Gonorrhea | Chlamydia | Chancroid | Genital, uncomplicated | Pharyngeal | Anorectal | Other | Ophthalmic | PID/Acute Salpingitis

Penicillin | Tetracycline | Other

Date of Spec. Collection | Laboratory Name | Type of Test | Results | Treatment Date | Medication | Dose

If syphilis, was previous treatment given for this infection? Yes No

If yes, give approximate date and place:

Email KHIEsupport@ky.gov to be onboarded for DDE if your facility does not currently use it.

See website for more information: Direct Data Entry (DDE) – KHIE

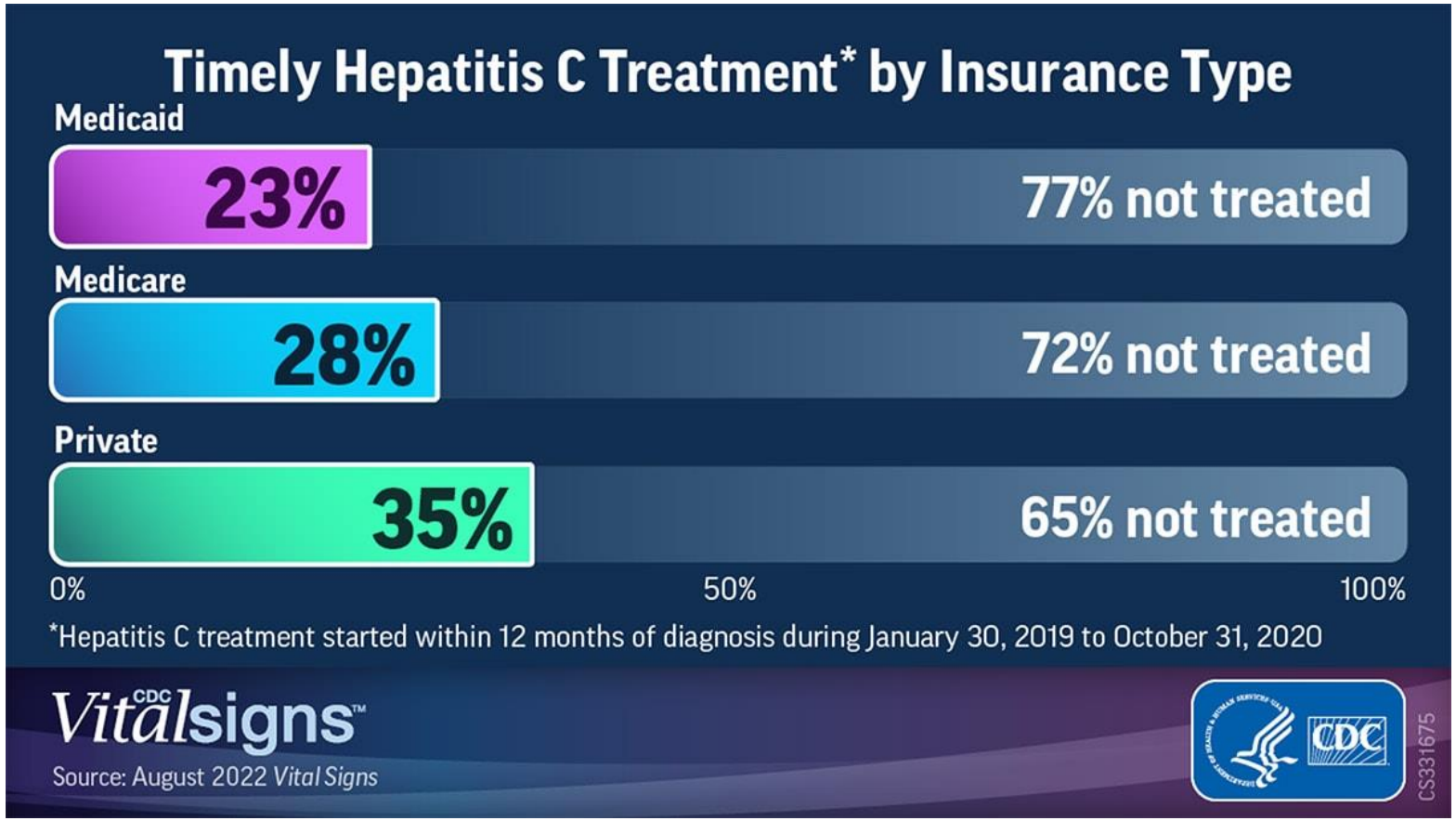
Hepatitis C Treatment and Linkage

Today's Hepatitis C Treatments

- Have cure rates of more than 95%
- Are easy to take and have few side effects
- Are covered by most health insurance
- Should not require sobriety
- Are pills taken daily
- Are completed in 8-12 weeks

Centers for Disease Control and Prevention (2022). Too Few People Treated for Hepatitis C: Reducing Barriers Can Increase Treatment and Save Lives. https://www.cdc.gov/vitalsigns/hepc-treatment/index.html

HCV Treatment in the US

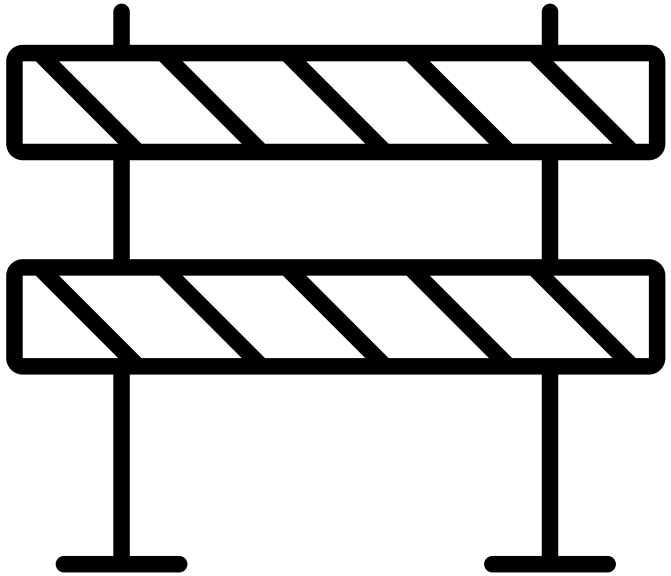


- Less than 1 in 3 people with health insurance receiving DAAs within a year of diagnosis.
- Treatment is lowest among patients in Medicaid plans.
- Less than 1 in 4 Medicaid recipients (23%) being treated within a year of diagnosis.
- Medicaid recipients in states that restrict access to hepatitis C treatment are 23% less likely to receive treatment than Medicaid recipients in states without restrictions.

https://www.cdc.gov/media/releases/2022/s0809-hepatitis-treatment.html

Barriers to Hepatitis C Care

- **Provider Barriers**
  - Lack of awareness/knowledge
  - Not enough testing
  - Not enough treatment providers
  - Stigma
- **Patient Barriers**
  - Lack of awareness/knowledge
  - Lack of transportation
  - Unstable housing
  - Lack of technology (internet, phone, etc.)
  - Past negative experiences with healthcare



It is important to recognize, and wherever possible, decrease barriers.

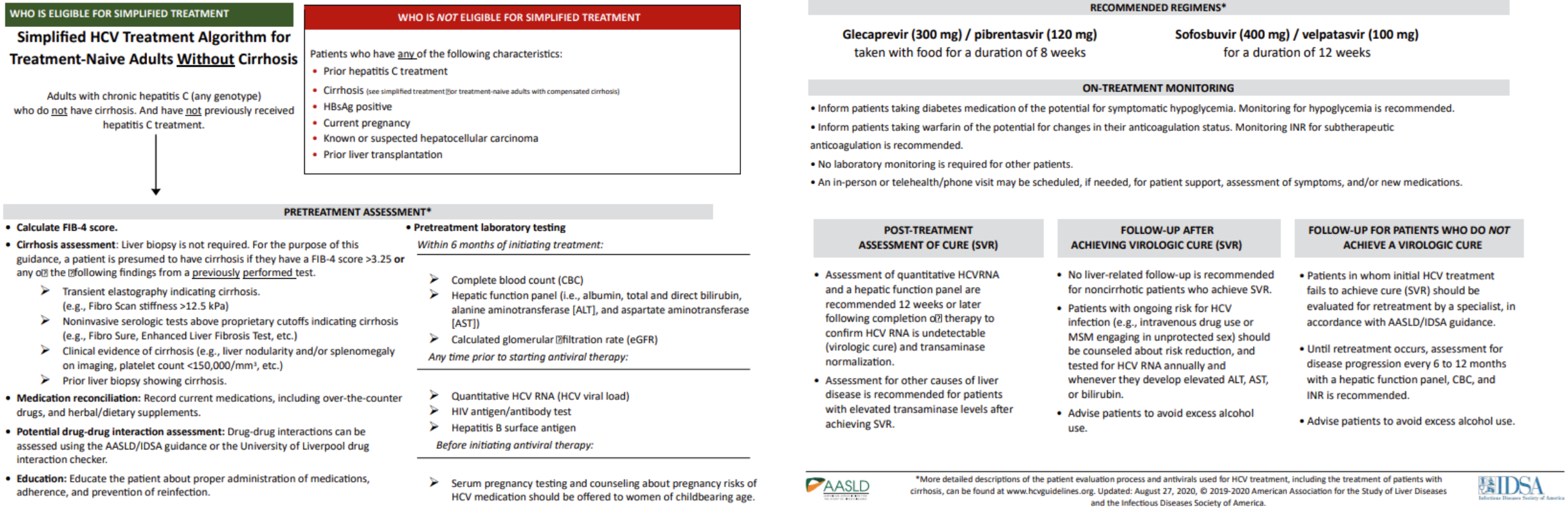
Pretreatment Laboratory Testing

- **Can Be Done at LHD by Public Health Nurses, With Orders**
  - Quantitative HCV RNA (HCV viral load)
  - HIV antigen/antibody test
  - Hepatitis B surface antigen
  - Complete blood count (CBC)
  - Hepatic function panel (i.e., albumin, total and direct bilirubin, alanine aminotransferase [ALT], and aspartate aminotransferase [AST])
  - Calculated glomerular filtration rate (eGFR)
  - Serum pregnancy testing for women of childbearing age

https://www.hcvguidelines.org/sites/default/files/full-guidance-pdf/AASLD-IDSA_HCV-Guidance_TxN-Simplified-Tx-No-Cirr_e.pdf

Simplified Treatment for Treatment Naïve Patients

- **Can Be Done at LHD by MDs or APRNs**



WHO IS ELIGIBLE FOR SIMPLIFIED TREATMENT

Simplified HCV Treatment Algorithm for Treatment-Naive Adults Without Cirrhosis

Adults with chronic hepatitis C (any genotype) who do not have cirrhosis. And have not previously received hepatitis C treatment.

WHO IS *NOT* ELIGIBLE FOR SIMPLIFIED TREATMENT

Patients who have any of the following characteristics:

- Prior hepatitis C treatment
- Cirrhosis (see simplified treatment for treatment-naive adults with compensated cirrhosis)
- HBsAg positive
- Current pregnancy
- Known or suspected hepatocellular carcinoma
- Prior liver transplantation

PRETREATMENT ASSESSMENT*

- **Calculate FIB-4 score.**
- **Cirrhosis assessment**: Liver biopsy is not required. For the purpose of this guidance, a patient is presumed to have cirrhosis if they have a FIB-4 score >3.25 **or** any of the following findings from a previously performed test.
  - Transient elastography indicating cirrhosis. (e.g., Fibro Scan stiffness >12.5 kPa)
  - Noninvasive serologic tests above proprietary cutoffs indicating cirrhosis (e.g., Fibro Sure, Enhanced Liver Fibrosis Test, etc.)
  - Clinical evidence of cirrhosis (e.g., liver nodularity and/or splenomegaly on imaging, platelet count <150,000/mm³, etc.)
  - Prior liver biopsy showing cirrhosis.
- **Medication reconciliation:** Record current medications, including over-the-counter drugs, and herbal/dietary supplements.
- **Potential drug-drug interaction assessment:** Drug-drug interactions can be assessed using the AASLD/IDSA guidance or the University of Liverpool drug interaction checker.
- **Education:** Educate the patient about proper administration of medications, adherence, and prevention of reinfection.
- **Pretreatment laboratory testing**

Within 6 months of initiating treatment:

  - Complete blood count (CBC)
  - Hepatic function panel (i.e., albumin, total and direct bilirubin, alanine aminotransferase [ALT], and aspartate aminotransferase [AST])
  - Calculated glomerular filtration rate (eGFR)

Any time prior to starting antiviral therapy:

  - Quantitative HCV RNA (HCV viral load)
  - HIV antigen/antibody test
  - Hepatitis B surface antigen

Before initiating antiviral therapy:

  - Serum pregnancy testing and counseling about pregnancy risks of HCV medication should be offered to women of childbearing age.

RECOMMENDED REGIMENS*

Glecaprevir (300 mg) / pibrentasvir (120 mg) taken with food for a duration of 8 weeks

Sofosbuvir (400 mg) / velpatasvir (100 mg) for a duration of 12 weeks

ON-TREATMENT MONITORING

- Inform patients taking diabetes medication of the potential for symptomatic hypoglycemia. Monitoring for hypoglycemia is recommended.
- Inform patients taking warfarin of the potential for changes in their anticoagulation status. Monitoring INR for subtherapeutic anticoagulation is recommended.
- No laboratory monitoring is required for other patients.
- An in-person or telehealth/phone visit may be scheduled, if needed, for patient support, assessment of symptoms, and/or new medications.

POST-TREATMENT ASSESSMENT OF CURE (SVR)

- Assessment of quantitative HCVRNA and a hepatic function panel are recommended 12 weeks or later following completion of therapy to confirm HCV RNA is undetectable (virologic cure) and transaminase normalization.
- Assessment for other causes of liver disease is recommended for patients with elevated transaminase levels after achieving SVR.

FOLLOW-UP AFTER ACHIEVING VIROLOGIC CURE (SVR)

- No liver-related follow-up is recommended for noncirrhotic patients who achieve SVR.
- Patients with ongoing risk for HCV infection (e.g., intravenous drug use or MSM engaging in unprotected sex) should be counseled about risk reduction, and tested for HCV RNA annually and whenever they develop elevated ALT, AST, or bilirubin.
- Advise patients to avoid excess alcohol use.

FOLLOW-UP FOR PATIENTS WHO DO *NOT* ACHIEVE A VIROLOGIC CURE

- Patients in whom initial HCV treatment fails to achieve cure (SVR) should be evaluated for retreatment by a specialist, in accordance with AASLD/IDSA guidance.
- Until retreatment occurs, assessment for disease progression every 6 to 12 months with a hepatic function panel, CBC, and INR is recommended.
- Advise patients to avoid excess alcohol use.

AASLD

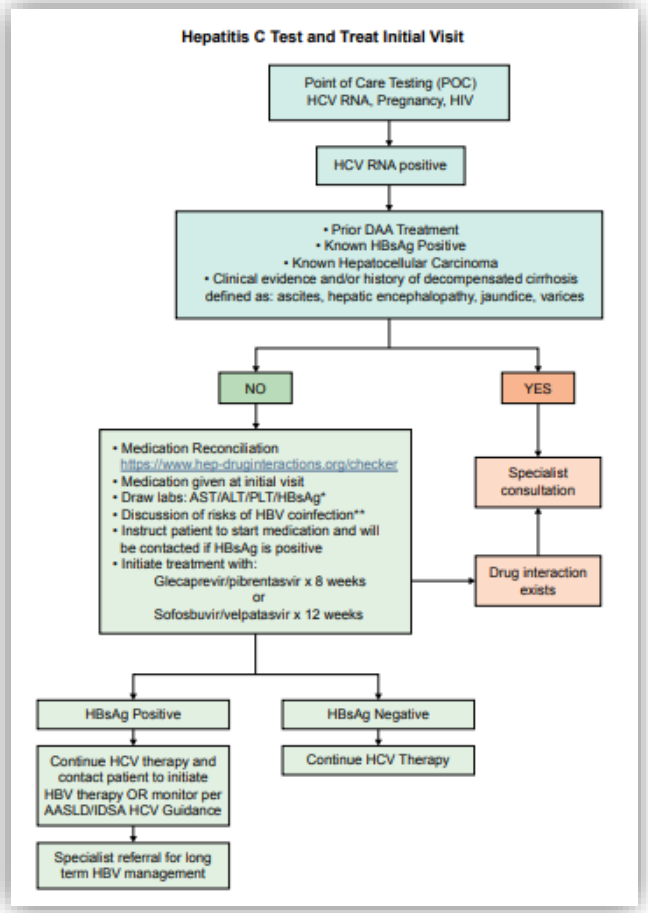
*More detailed descriptions of the patient evaluation process and antivirals used for HCV treatment, including the treatment of patients with cirrhosis, can be found at www.hcvguidelines.org. Updated: August 27, 2020, © 2019-2020 American Association for the Study of Liver Diseases and the Infectious Diseases Society of America.

IDSA Infectious Diseases Society of America

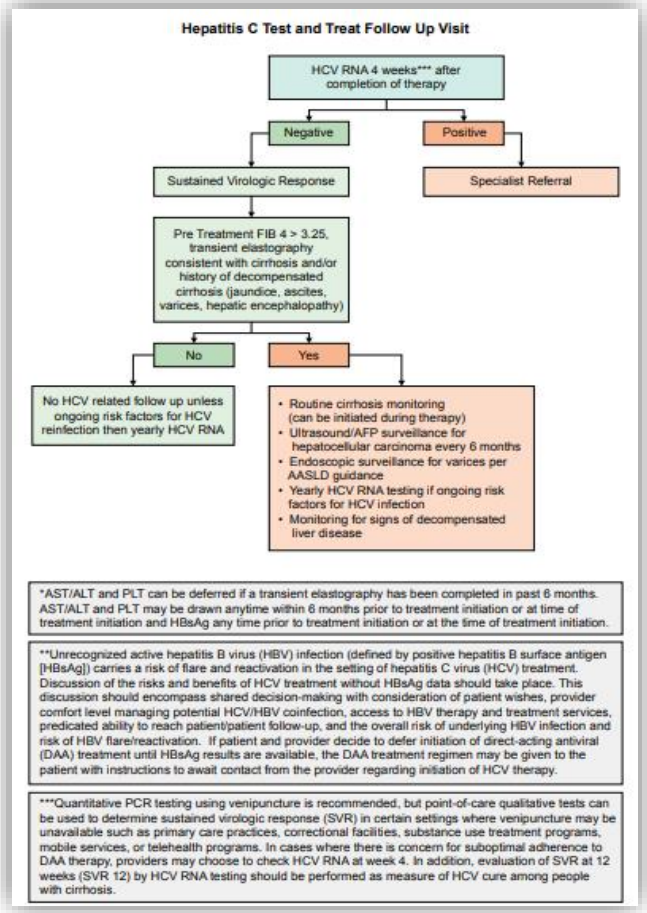
https://www.hcvguidelines.org/sites/default/files/full-guidance-pdf/AASLD-IDSA_HCV-Guidance_TxN-Simplified-Tx-No-Cirr_e.pdf

2025 AASLD Guidelines for Treatment Naïve Patients

Test and Treat - Initial Visit:



Test and Treat - Follow-up Visit 4 weeks after completion of therapy:



https://www.hcvguidelines.org/sites/default/files/full-guidance-pdf/HCV%20Test%20and%20Treat%20Final%20011725.pdf

KY Hepatitis Academic Mentorship Program (KHAMP)

Kentucky Rural Health Association (KRHA) Program

- For providers throughout Kentucky who are interested in providing hepatitis C services in their local communities
- Training program that is easily accessible, regardless of location
- Provides one-on-one, ongoing mentorship and support

KENTUCKY
RURAL HEALTH ASSOCIATION

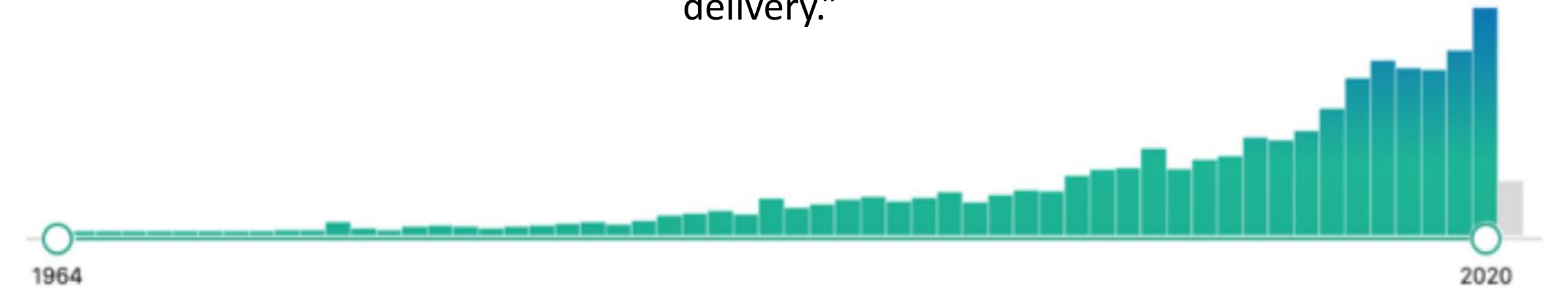
kyrha.org/khamp

HCV Treatment through Clinic Partnerships

- Telehealth Partnerships
- Partnerships with HCV Treatment Providers in Local Community
  - Primary Care (Federally Qualified Health Centers, Community Health Centers, etc.)
  - Substance Use Treatment Clinics
  - Mobile Clinics

Healthcare Provider Stigma

"Stigma surrounding substance use disorders (SUDs) is a frequently cited barrier to treatment engagement.
Research consistently demonstrates that healthcare professionals' attitudes towards patients with addiction problems are often negative and may adversely impact service delivery."



Number of published research articles referencing provider stigma, 1964-2020

Bielenberg J, Swisher G, Lembke A, Haug NA. A systematic review of stigma interventions for providers who treat patients with substance use disorders. J Subst Abuse Treat. 2021 Dec;131:108486.

Addressing Barriers: Stigma

- When people experience stigma from healthcare providers, *they become less likely to seek care when they need it.*
- People who experience stigma are often unable to get what they need to stay healthy.

Image: shutterstock.com - 2293751923

Infectious Disease Stigma

HCV is often associated with perceived, current, or past substance use.

- Stigma can contribute to people avoiding HCV testing and treatment
  - Internalized Stigma
    - Fear of giving HCV to friends/family
  - External Stigma
    - Healthcare workers - discrimination
    - Friends/Family
    - Society

Decrease Stigma: 4 Recommendations

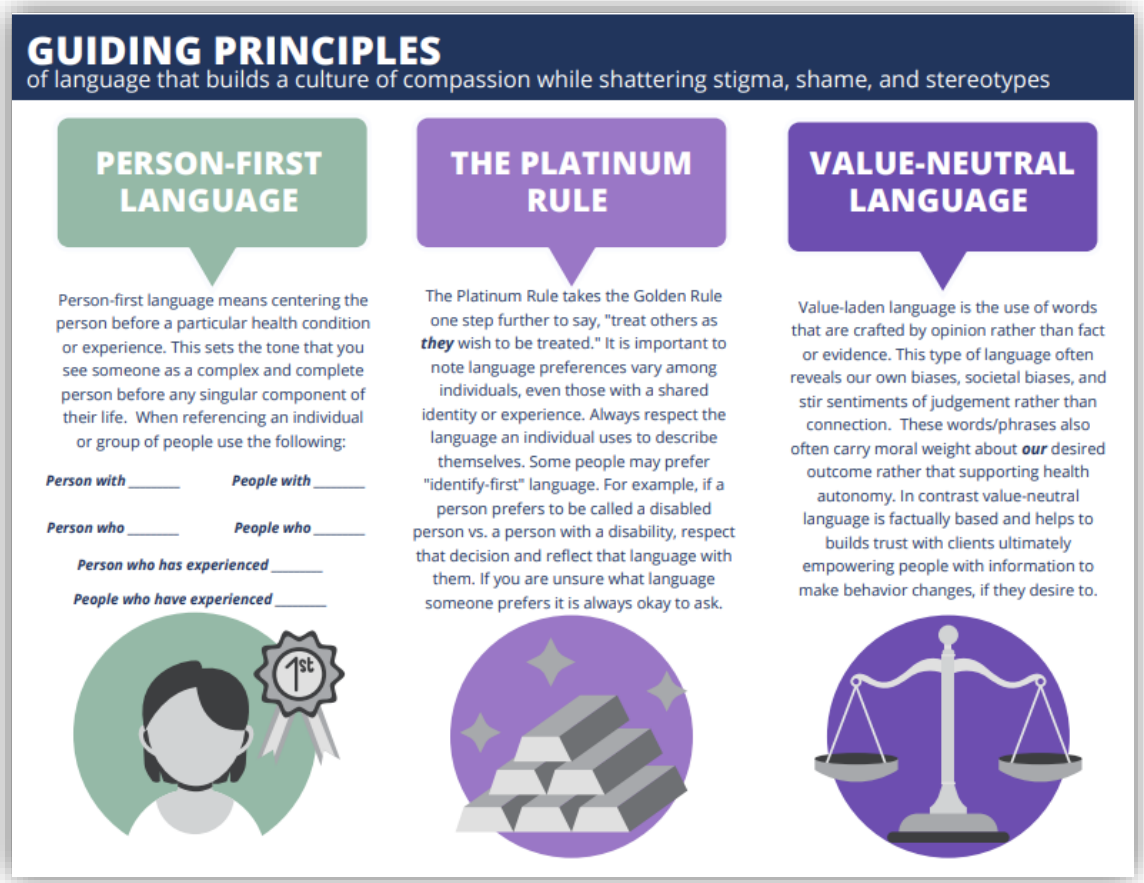
1. Recognize and whenever possible, decrease barriers.

2. Use person-first language.

3. Be aware of non-verbal communication.

4. Acknowledge mistakes and apologize.

Language is Important



GUIDING PRINCIPLES

of language that builds a culture of compassion while shattering stigma, shame, and stereotypes

PERSON-FIRST LANGUAGE

Person-first language means centering the person before a particular health condition or experience. This sets the tone that you see someone as a complex and complete person before any singular component of their life. When referencing an individual or group of people use the following:

Person with _____ ***People with _____***

Person who _____ ***People who _____***

Person who has experienced _____

People who have experienced _____

THE PLATINUM RULE

The Platinum Rule takes the Golden Rule one step further to say, "treat others as ***they*** wish to be treated." It is important to note language preferences vary among individuals, even those with a shared identity or experience. Always respect the language an individual uses to describe themselves. Some people may prefer "identify-first" language. For example, if a person prefers to be called a disabled person vs. a person with a disability, respect that decision and reflect that language with them. If you are unsure what language someone prefers it is always okay to ask.

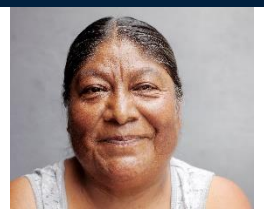
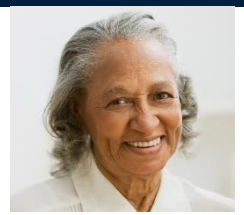
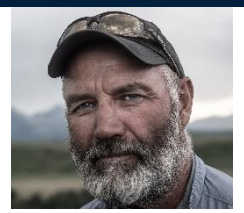
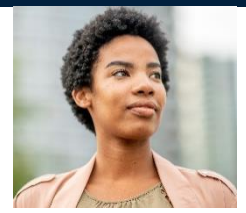
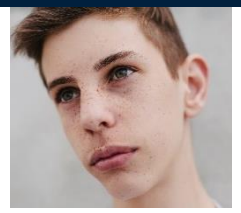
VALUE-NEUTRAL LANGUAGE

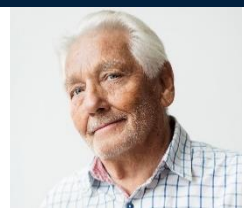
Value-laden language is the use of words that are crafted by opinion rather than fact or evidence. This type of language often reveals our own biases, societal biases, and stir sentiments of judgement rather than connection. These words/phrases also often carry moral weight about ***our*** desired outcome rather that supporting health autonomy. In contrast value-neutral language is factually based and helps to builds trust with clients ultimately empowering people with information to make behavior changes, if they desire to.

https://endthesyndemictn.org/wp-content/uploads/2022/08/Language-Guide-2.0.pdf

Substance Use Stigma



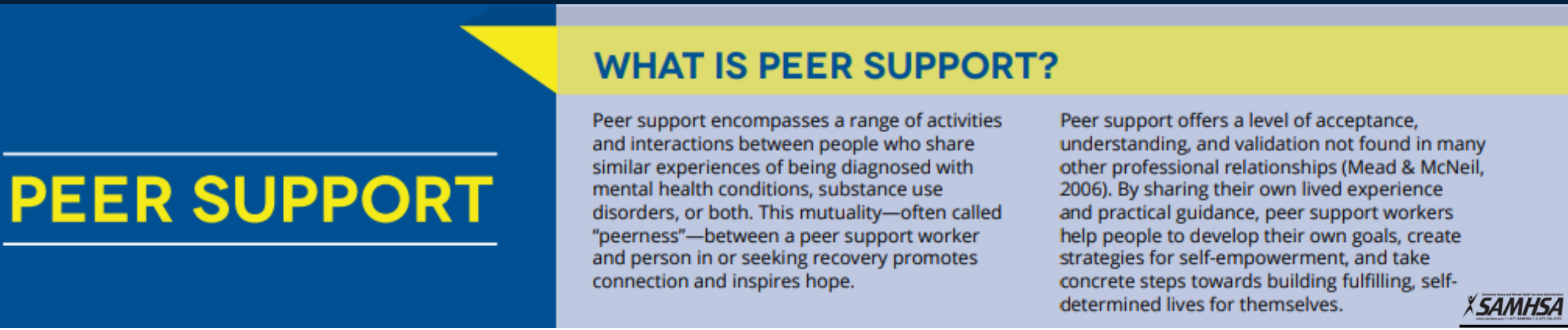


- **People Who Use Drugs**
  - are seeking health care.
  - are doing their best.
  - are parents, siblings, children, colleagues, friends, community members...
  - care about their health.
  - deserve to
    - have their pain managed.
    - receive high quality health care.
    - live.
- **Substance Use Disorder (SUD)**
  - could affect anyone.
  - is not the lack of willpower.
  - is a mental health condition, not a crime.
  - is treatable.
  - There are many evidence-based treatments for SUD, including Medications for Opioid Use Disorder (MOUD).

Stigma and Linkage to Care

- Offering hepatitis C services (testing, treatment) **on-site** in Local Health Departments
- Being aware of and regularly updating a list of person-centered hepatitis C treatment providers
- Providing warm hand-offs to hepatitis C treatment providers
  - Helping make phone calls
  - Accompanying when appropriate
- Ideally, **Peer Supports** are engaged at every step

Evidence-Based Intervention: Peer Support



Peer support models have been proven effective in increasing hepatitis C awareness, testing, and treatment uptake and engagement.

Image: Value of Peers Infographics: General Peer Support

Sione Crawford, Nicky Bath, Peer Support Models for People With a History of Injecting Drug Use Undertaking Assessment and Treatment for Hepatitis C Virus Infection, *Clinical Infectious Diseases*, Volume 57, Issue suppl_2, August 2013, Pages S75–S79, https://doi.org/10.1093/cid/cit297

Stagg, H.R., Surey, J., Francis, M. *et al.* Improving engagement with healthcare in hepatitis C: a randomised controlled trial of a peer support intervention. *BMC Med* **17**, 71 (2019). https://doi.org/10.1186/s12916-019-1300-2

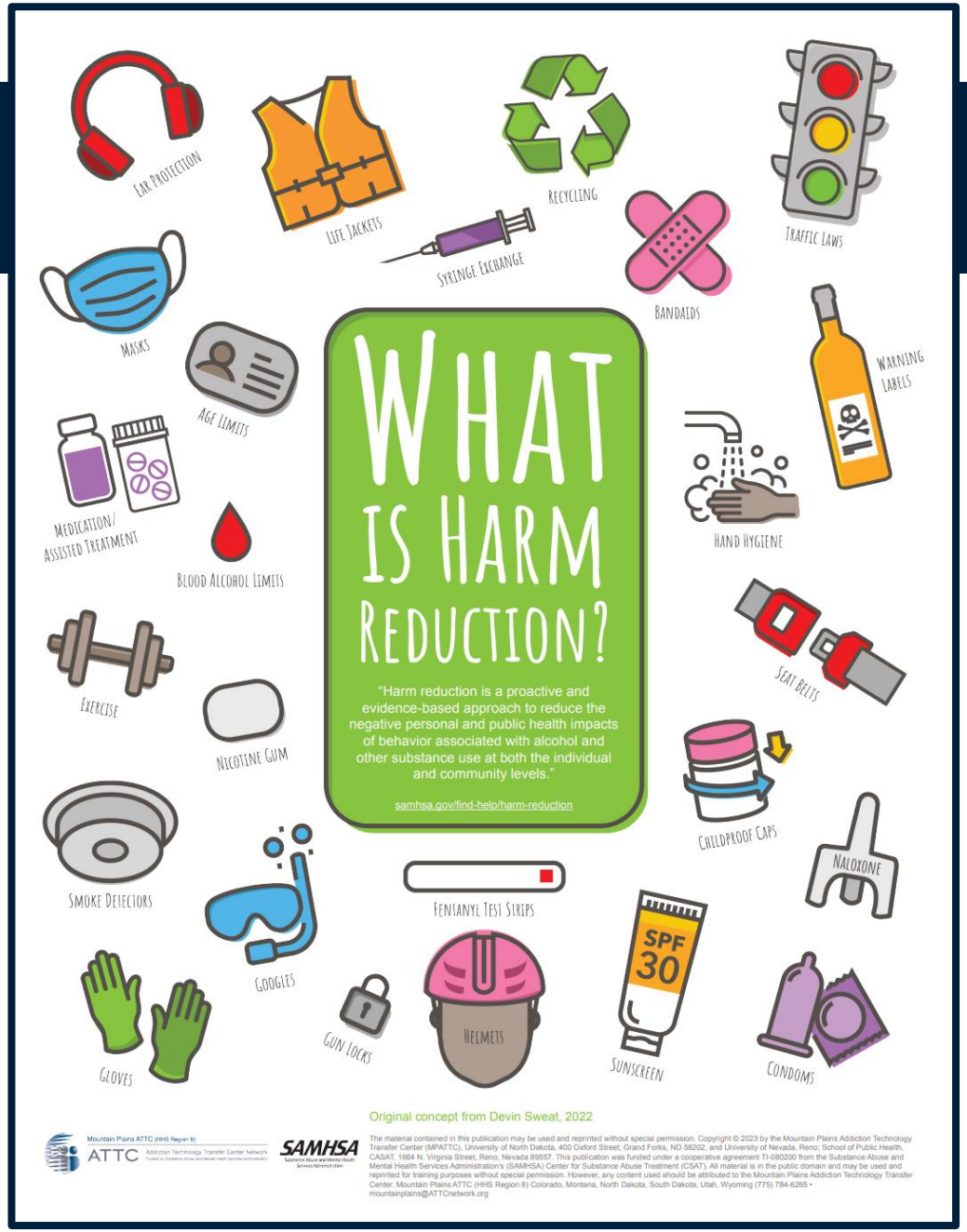
Linkage to Hepatitis C Care

1. Offer harm reduction education
2. Recognize and address barriers
3. Provide warm handoffs
4. Follow up and provide support as needed

What is Harm Reduction?

"Harm reduction is a proactive and evidence-based approach to reduce the negative personal and public health impacts of behavior associated with alcohol and other substance use at both the individual and community levels."

samhsa.gov/find-help/harm-reduction

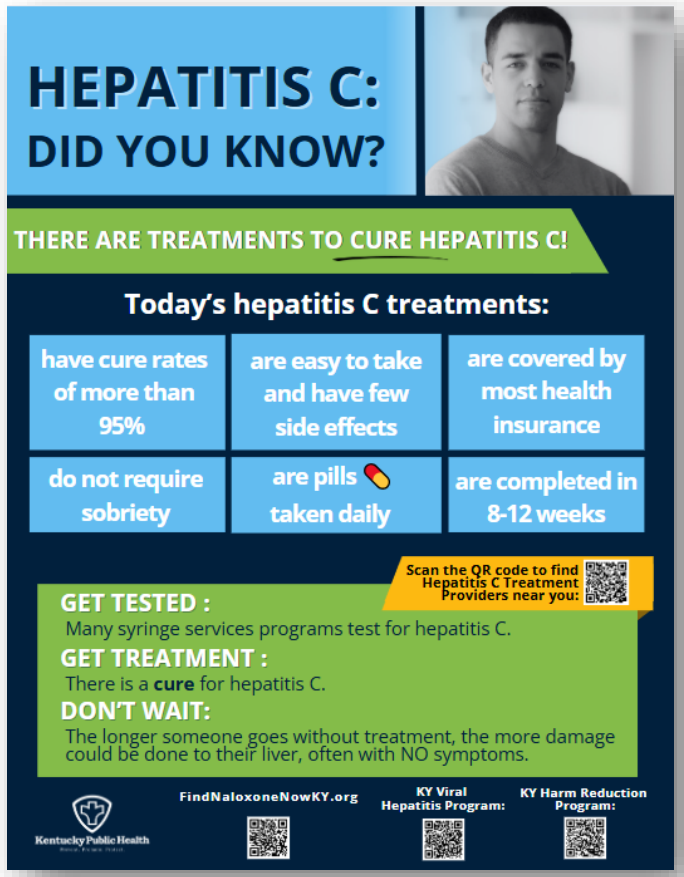


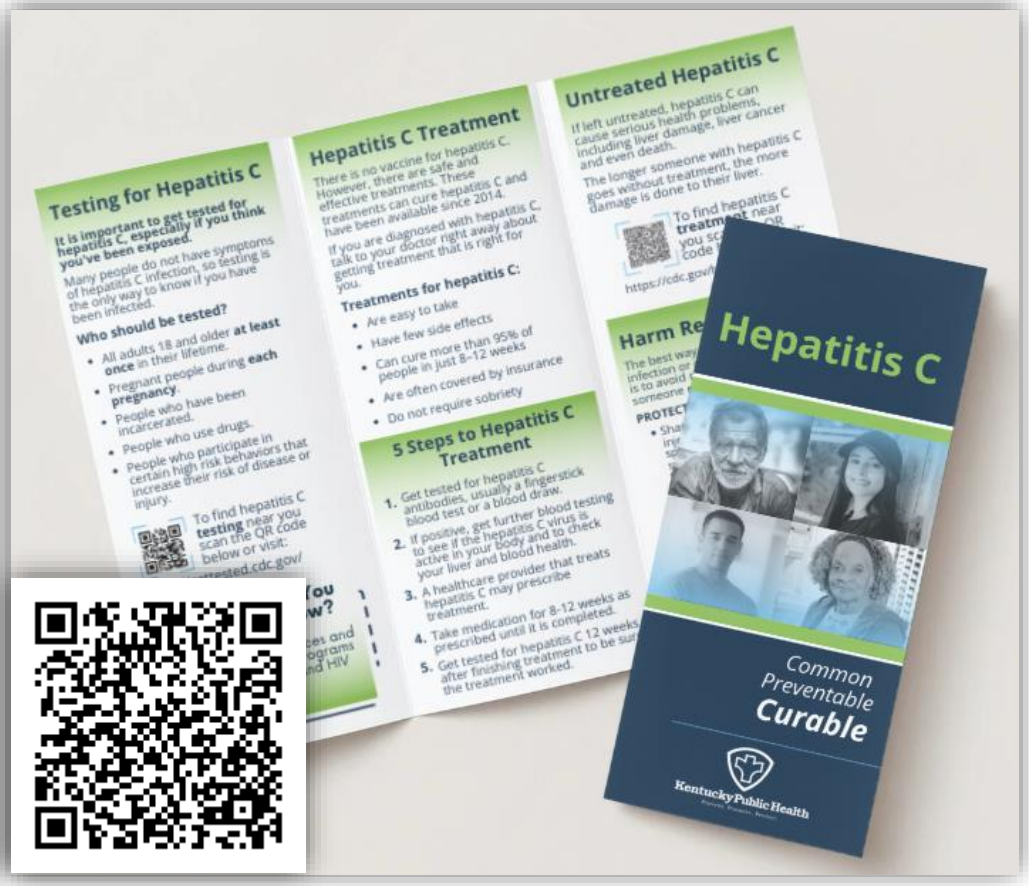
Addressing Barriers: Harm Reduction Education

- Avoid sharing syringes, pipes, straws, or any equipment/surfaces used to prepare drugs.
- Utilize syringe service programs.
- Use condoms or other barrier methods and lubricant during sex.
- Utilize professional shops for tattoos/piercings. Use sterile equipment.
- Avoid sharing toothbrushes, razors, nail clippers, and other hygiene supplies, especially in congregant settings (jails, etc.).
- **GET TESTED**, potentially regularly depending on risk factors.
- **GET CURED** if diagnosed with hepatitis C – talk to a healthcare provider.
  - **DON'T WAIT,** early treatment can prevent further liver damage and transmission.
- Communicate with healthcare providers, sexual partners, family members.
- **Reinfection Prevention = Harm Reduction**

Centers for Disease Control and Prevention (n.d.). Hepatitis C Prevention and Control. https://www.cdc.gov/hepatitis-c/prevention/. Image: CDC

Hepatitis C Harm Reduction Educational Materials





PDFs of Educational Materials: https://redcap.chfs.ky.gov/surveys/?s=8MCCEFAKTN4WA9FA

Addressing Barriers: Health Insurance

KYNECT Benefits: https://kynect.ky.gov

- Check eligibility and apply for Health Coverage, Benefits, Resources
- On-site KYNECTors or assistance with phone call or online application

Kentucky Prescription Assistance Program (KPAP)

- KPAP helps qualifying individuals identify sources of free and low-cost medications offered by pharmaceutical companies, *potentially including treatment for hepatitis C*
- **KPAP Hotline: 1-800-633-8100** Mon.-Fri. 8am to 4pm EST
- **Email to become an advocate**: Jennifer.ToribioNaas@ky.gov

KPAP Website:

Kentucky Prescription Assistance Program - Cabinet for Health and Family Services

Addressing Barriers: Transportation, Housing, Technology

- **Transportation/Technology**
  - Gas cards, bus passes
  - On-site hepatitis C testing and treatment
  - Walk-in appointments
- **Housing**
  - Connection to housing assistance programs
  - Lockers on-site for medication storage
  - Medications can be mailed to Local Health Departments

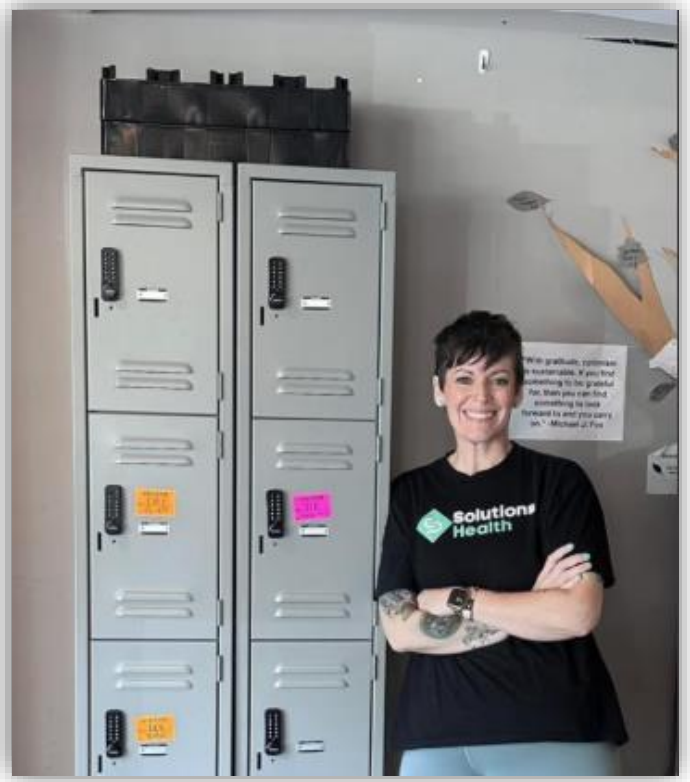


Image: https://www.facebook.com/solutionshealthinc

Referral to Hepatitis C Treatment

- Often a simple referral is not enough on its own to get someone linked to hepatitis C care
  - » Letters/phone calls don't reach patients
  - » Scheduling difficulties
- Enhanced linkage can help to address and overcome barriers

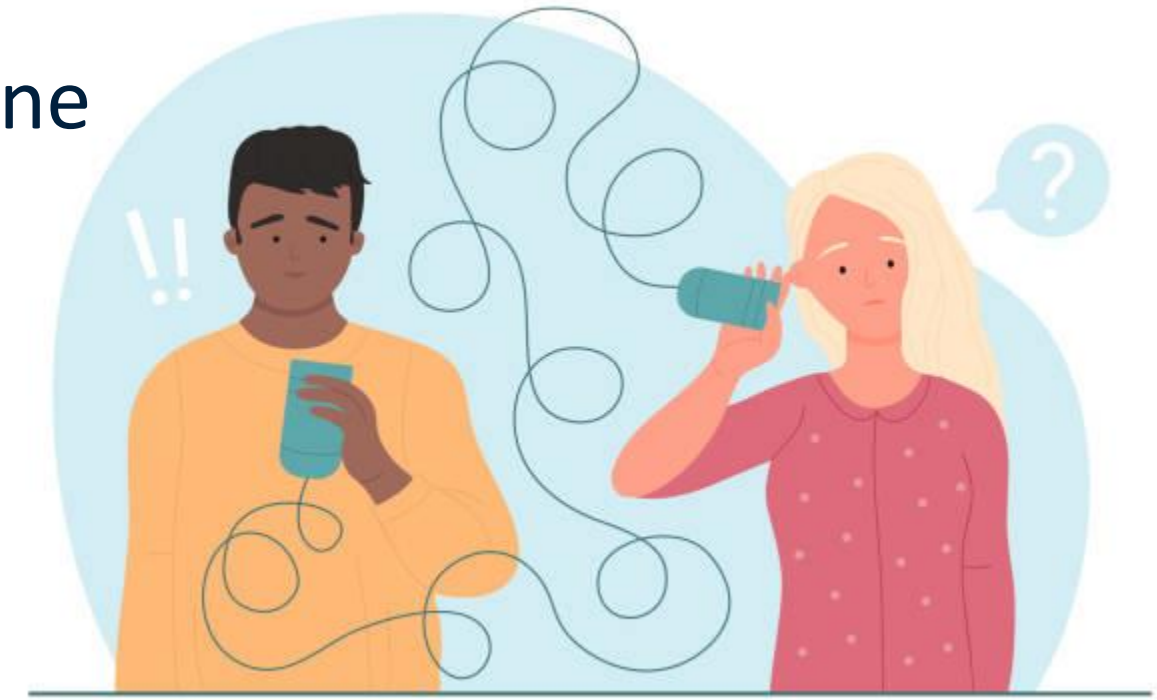


Image: https://images.app.goo.gl/wZ3PJGQD6iGrvVXZ7

Linkage for Positive HCV RNA Tests

1. Find out where people can get testing and treatment for hepatitis C locally.

Keep regularly updated list of local providers	Be familiar with local providers: non-stigmatizing, person-centered care	Where to get confirmatory testing, treatment

2. Provide warm hand-offs.

Explain the process	Help make phone calls	Assist in arranging transportation	Accompany when appropriate

3. Advocate

For hepatitis C care and co-location to decrease barriers	For patients when they are experiencing stigma/discrimination

4. Follow up

If appointments are missed, why?	Help plan for success

Gathering Hepatitis C Data

Was patient offered HCV education and testing at each visit?

Was patient tested for HCV Antibodies with Reflex to HCV RNA?

Was HCV treatment and/or linkage to HCV care provided and successful?

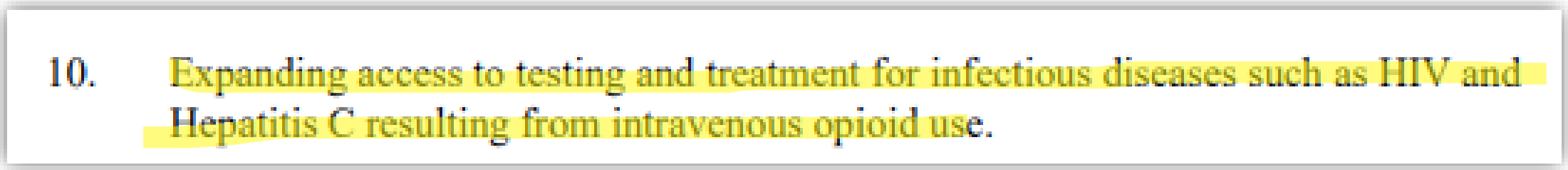
cdc.gov/hepatitis-c/testing/index.html

Opioid Settlement Funds

Opioid Settlement Funds

- Commission Teva Global Opioid Settlement Agreement (2023) – Exhibit E, Schedule B Approved Uses (H, 10): PREVENT OVERDOSE DEATHS AND OTHER HARMS (HARM REDUCTION)

  "Support efforts to prevent or reduce…opioid-related harms through…strategies that may include, but are not limited to, the following:"


10. Expanding access to testing and treatment for infectious diseases such as HIV and Hepatitis C resulting from intravenous opioid use.

Principles for the Use of Funds From the Opioid Litigation https://apps.legislature.ky.gov/law/statutes/statute.aspx?id=52961 https://nationalopioidsettlement.com/wp-content/uploads/2023/02/TEVA-Exhibit-E.pdf opioidsettlementguides.com/kentucky

Resources: Learning More About Hepatitis C

- **CDC** https://www.cdc.gov/hepatitis-c
- **NASTAD** https://nastad.org/teams/hepatitis
- **OraSure OraQuick® HCV Rapid Antibody Test Training** https://orasure.com/products/training/OraQuick-HCV-Training.html
- **National Harm Reduction Coalition** https://harmreduction.org/issues/hepatitis-c
- **Hepatitis Education Project (HEP)** https://hep.org
- **NACCHO Viral Hepatitis Resources** https://www.naccho.org/programs/community-health/infectious-disease/hiv-sti/viral-hepatitis
- **National Viral Hepatitis Roundtable** https://nvhr.org
- **HepVu** https://hepvu.org

Resources: Finding Hepatitis C Testing and Treatment

GetTested.cdc.gov

Kentucky Syringe Service Programs

CDC HCV Treatment Locator

CDC - Find HCV/STI Testing: gettested.cdc.gov
Kentucky Syringe Service Programs: chfs.ky.gov/agencies/dph/dehp/hab/Pages/kyseps.aspx
CDC - HCV Treatment Locator: cdc.gov/hepatitis-c/treatment/index.html#cdc_treatment_get_teatment-treatment

Hepatitis C Elimination: Let's Finish Him Off!

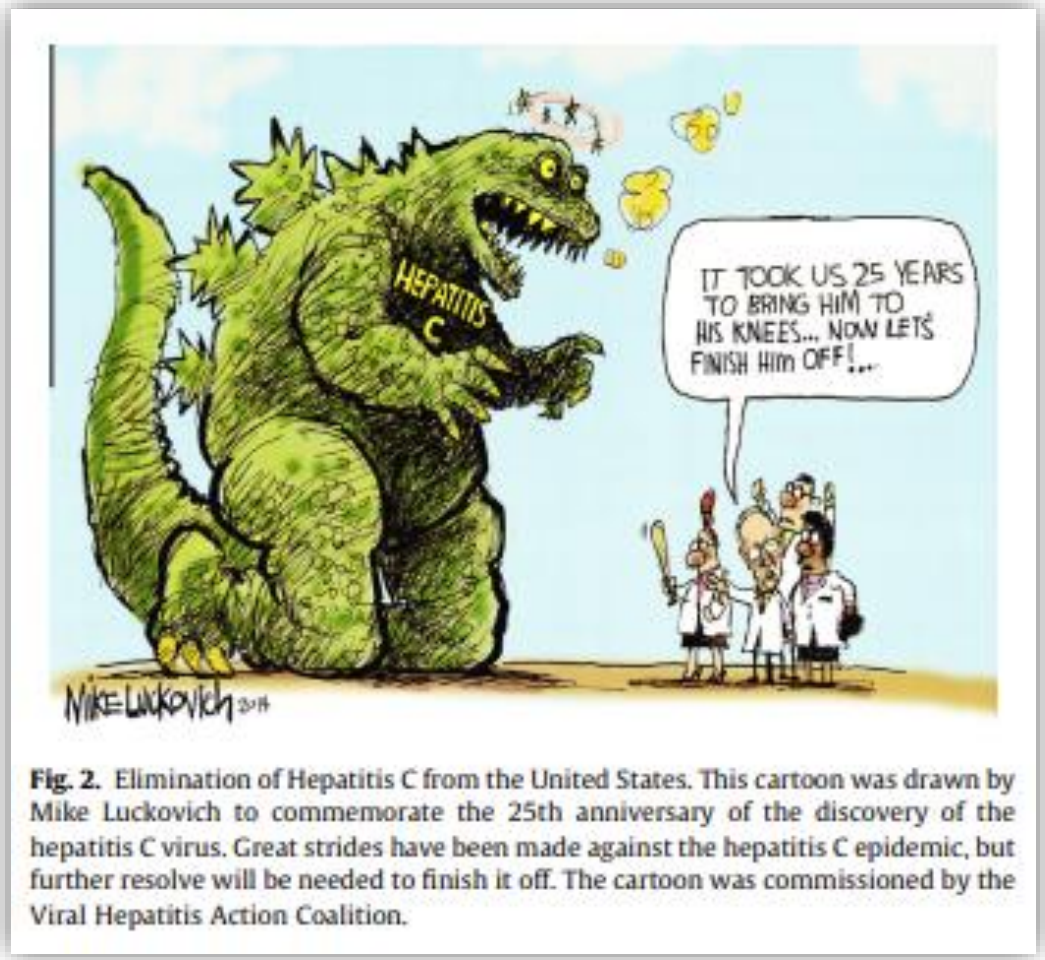


Fig. 2. Elimination of Hepatitis C from the United States. This cartoon was drawn by Mike Luckovich to commemorate the 25th anniversary of the discovery of the hepatitis C virus. Great strides have been made against the hepatitis C epidemic, but further resolve will be needed to finish it off. The cartoon was commissioned by the Viral Hepatitis Action Coalition.

Image: https://natap.org/2014/HCV/1s2.0S0166354214002149main.pdf

HCV Elimination in Kentucky Communities

- *Local programs*, not simply statewide efforts will ultimately be more successful in progress towards hepatitis C elimination and other syndemic-related improvements
- Local efforts will ensure culturally and geographically relevant solutions

Thank You!

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VHP Email List

VHP Educational Materials

VHP Data Request

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