



NASTAD's Prevention and Surveillance
Virtual Learning Collaborative

Viral Hepatitis Testing Health System Assessment Toolkit

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TOOLKIT

Viral Hepatitis Testing

HEALTH SYSTEM ASSESSMENT

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Why?

- Improve HCV (& HBV) screening (& linkage/treatment) in your jurisdiction
- Systems-level changes needed to reach elimination in your jurisdiction
- Inform resource and technical assistance needs
- Strengthen relationships with key players in your jurisdiction

Who to Include?

Work with surveillance team to identify 5 highest volume health systems for HCV (& HBV) testing.

Example 1

All newly reported positive and negative HCV antibody (anti-HCV) screening results in 2022 within the jurisdiction identify three major academic medical HS (multi-hospital and outpatient sites), and the five hospitals in the system.

Example 2

All newly reported positive and negative anti-HCV, HCV RNA, HBsAg, and HBV DNA test results in 2019 identify two hospitals within larger health systems, one community health center, and one syringe service program (SSP).

Methodologies

- Questionnaire (SurveyMonkey, REDCap, etc.)
- Key Informant Interviews or Focus Groups
- Review of written protocols and resources
- Disease Surveillance Data
- Patient Interviews
- Brief Patient Intercepts
- Onsite Review of Processes
- Additional Data Sources (claims, ECR, etc.)

What to Ask?

Dictated by capacity and resources

- HCV (& HBV) screening methods
 - Reflex testing
 - Universal opt out models
 - Simplified order sets in EMRs
- Policies on paper vs. practice
- Are national recommendations being followed?
- May include linkage, vaccination, & treatment

APPENDIX 1: BEST PRACTICE OUTLINES

APPENDIX 2: FACTORS TO CONSIDER

APPENDIX 3: QUESTION BANK

Who to Ask?

- Depending on the HS, may not be straightforward
- May choose to pick a few specialties (who SHOULD be testing)
- If you have champions, leverage them!

Feedback After Assessment

RESOURCES

- Share with site: one pager, meeting, etc.
- Broader dissemination to stakeholders

- Be constructive
- Leverage existing recommendations and models
- Facilitate connections with champions or experienced sites
- Present opportunities to continue the collaboration

Health Departments

- Identify areas for support and improvement
- What programming would help? What education is lacking?
- Are there policies needed to facilitate addressing barriers?

Examples

Question Bank

- Maryland
- California
- Montana
- Philadelphia

Section IV

HBV Services offered: This section of the survey will focus on HBV services being offered to patients including screening, testing, vaccination, and support services

- *Screening*

- 28. *Do you offer routine HBV screening and testing? (yes/no/unknown)*
- 29. *Do you have guidelines for HBV screening? (yes/no/unknown)*
- 30. *Percentage of patients requesting HBV screening and testing*
- 31. *Number of patients tested for HBV in the last 12months*
- 32. *Where do you provide your testing (on-site, off site)*
 - *If offsite which: outreach, community, nail salons, mobile unit, ethnic festivals, churches*
- 33. *Do you offer HBV prevention services/education? (yes/no/unknown)*
- 34. *Do you offer HBV vaccination to uninsured? (yes/no/unknown)*

- *Vaccination*

- 35. *Do you offer HBV vaccination? (yes/no/unknown)*
- 36. *Do you have guidelines for HBV vaccination? (yes/no/unknown)*
- 37. *Percentage of patients requesting HBV vaccination (yes/no/unknown)*
- 38. *Number of patients tested for HBV in the last 12months*
- 39. *Where do you provide your vaccinations (on-site, off site)*
 - *If offsite which: outreach, community, nail salons, mobile unit, ethnic festivals, churches*
- 40. *Do you offer HBV vaccination to uninsured? (yes/no/unknown)*

- *Support Services*

- *Are any of the following services are offered:*
 - *case management (yes/no/unknown)*
 - *childcare (yes/no/unknown)*
 - *food (yes/no/unknown)*
 - *clothing (yes/no/unknown)*
 - *financial needs (yes/no/unknown)*
 - *HBV treatment advocacy (yes/no/unknown)*
 - *in-house specialist/hepatologist consultation (yes/no/unknown)*
 - *language (yes/no/unknown)*
 - *mental health (yes/no/unknown)*

PDPH's HSA

- Key Informant interviews with 4 HS's representing >10 hospitals and dozens of primary care offices
 - 30 minute meetings
 - Also did a SurveyMonkey of FQHCs in city
- Spoke to primary care, family medicine, OBGYN and some infectious disease practices
 - Several CMOs attended as well
- Discussed HCV & HBV testing, linkage pathways and treatment, and HBV vaccination

PDPH's Feedback Dissemination & Action Plan

**Department of Public Health
CITY OF PHILADELPHIA**
**Hepatitis B & Hepatitis C Screening Assessment 2023
HEALTHCARE SYSTEM D (HSD)**

Purpose
The Philadelphia Department of Public Health (PDPH) collaborated with the largest health systems in Philadelphia to learn their respective hepatitis B and hepatitis C screening practices. Through this assessment, PDPH aimed to understand the barriers each institution faces in achieving universal screening for hepatitis B and hepatitis C, and the subsequent care for any diagnosed patient. Information gleaned from this assessment will support viral hepatitis elimination by informing strategies to increase access to testing, treatment, and prevention for Philadelphia.

Hepatitis B and Hepatitis C Surveillance Data for the Largest Health Systems in Philadelphia
(1/1/2021 - 12/31/2023)

Total Positive Hepatitis B Labs Reported to PDPH*

Health System	Percentage
Health System C	39%
Health System A	26%
Health System B	19%
Health System D	16%

HCV Confirmatory Test Completion, as Reported to PDPH*

Health System	Percentage
Health System A	~85%
Health System B	~80%
Health System C	~75%
Health System D	~65%

Summary of Findings from Obstetrics & Gynecology (OBGYN), Primary Care, Emergency & Hepatology Interviews

RECOMMENDATIONS

- Incorporate EHR Alerts for Universal HBV & HCV Testing**
The EHR (Electronic Health Record) should be modified to include CDC's recommended universal hepatitis B virus (HBV) and hepatitis C virus (HCV) screenings for adults aged 19 years and older, and implementing routine HBV screening (HBsAg, HBsAb, Total HbCAb) and HCV screening (anti-HCV & HCV RNA) could streamline patient testing and reduce burden of providers to interpret risk.
- Implement Automatic anti-HCV Reflex to HCV RNA**
Anti-HCV lab orders should be automatically reflexed to HCV RNA, eliminating the order option for a reflex test.
- Ensure the EHR is modified to allow anti-HCV with reflex to HCV RNA and removing the option for a reflex test could streamline patient testing and reduce the need for additional lab work.**
- Provide Case Management Services**
Create social and community health workers could improve health outcomes of patients by helping to address social and community health workers could improve health outcomes of patients by helping to address social determinants of health.
- Train Providers to Treat Hepatitis B & Hepatitis C**
Increase the number of medical providers able to treat hepatitis B and hepatitis C and diversify departments in which they work.
- Referrals for both hepatitis B and C treatment and evaluation are made to Hepatology, resulting in a back-timeliness challenges for patient evaluation. Workforce development for hepatitis B and C treatment and multiple departments may alleviate the strain on fewer providers. Supplementing HSD resources with an external referral network of treating providers who accept Medicaid will support patients interested in receiving care elsewhere resources with an external referral network of treating providers who accept Medicaid will support patients interested in receiving services elsewhere.**

National Guidelines and Recommendations	
	Hepatitis B
Centers for Disease Control and Prevention (CDC)	<p>Test at least once during a lifetime for all adults aged 18 years and older*.</p> <p>Test all pregnant persons during each pregnancy, preferably in the 1st trimester, regardless of vaccination status or history of testing**.</p> <p>Advisory Committee on Immunization Practices (ACIP) - all adults aged 19-59 years should receive HepB vaccines.</p>
U.S.	Grade B - screening for HBV infection in adults aged 18 to 79 years.
	Hepatitis C
	<p>Test at least once in a lifetime for all adults aged 18 years and older, except in settings where the prevalence of HCV infection (HCV RNA-positivity) is less than 0.1%.</p> <p>Test all pregnant persons during each pregnancy, except in settings where the prevalence of HCV infection (HCV RNA-positivity) is less than 0.1%.</p>
	Grade B - screening for HCV infection in adults aged 18 to 79 years.
	Level B - Routine prenatal HCV screening is recommended for all pregnant people during every pregnancy.

Hepatitis B & Hepatitis C Screening Assessment 2023 HEALTHCARE SYSTEM D (HSD)

OVERVIEW

HEPATITIS B

- No systemwide universal hepatitis B screening
- Universal screening is conducted in prenatal clinics
- EHR does not provide screening alerts
- Few treating providers
- Lack of continuity of care

HEPATITIS C

- No systemwide universal hepatitis C screening
- Universal screening is conducted in prenatal clinics
- EHR does not provide screening alerts
- Automatic anti-HCV reflex to HCV RNA is not performed
- Few treating providers

SUCCESSES

- Comprehensive Onsite Services**
Phlebotomy services are offered onsite in all locations streamlining this service for patients. There are social workers at various locations throughout HSD and four OBGYN offices include behavioral health services.
- Accessible Hepatology Team**
Referrals are accepted from other departments within HSD streamlining patient care. In addition, there is a robust telehealth appointment system that patients can utilize, reducing challenges patients may be experiencing in attending appointments.
- Payment for Services**
HSD serves a large population of people with low socioeconomic status, who have Medicaid or Medicare coverage and people who are undocumented immigrants who have difficulty obtaining health insurance. Both billing and adherence has been a challenge given the volatility of drug coverage by health insurance companies.

CHALLENGES

- Lack of Treating Providers**
There are few providers treating hepatitis B and hepatitis C in departments outside of Hepatology. This reliance on Hepatology to take on patients causes timeliness issues for the Hepatology department.
- Language and Cultural Barriers**
English is not the first language of many patients with hepatitis B and hepatitis C. Mandarin is commonly spoken among those with hepatitis B and many patients with hepatitis C speak Spanish. Translation services through interpreters can be difficult to use due to the nuanced nature of the health conversations which creates difficulty facilitating appropriate follow up care.
- Consistent Vaccination**
Universal, routine vaccinations for hepatitis B are not offered systemwide due to a number of barriers, one of which is a lack of refrigeration.

PDPH TECHNICAL ASSISTANCE OPTIONS

- External referral networks for hepatitis B & hepatitis C treatment.
- Guidance on implementing universal HBV & HCV screening prompts in EHR.
- Evidence-based education to providers & clinic staff regarding effective communication of benefits of universal hepatitis B screening & vaccination.
- Preceptorship opportunities for hepatitis B and hepatitis C treatment.
- Patient education and resources provided in multiple languages, including Mandarin & Spanish.

- Compiled each HS's feedback into background data, resources, & recommendations
- Sent via email to key informants
- Met with key informants to review and develop action items
 - 3/4 sites so far
- Follow up meetings in a few months

Results & Feedback Examples

- 1 HS follows baby-boomer HCV testing in primary care
 - Sharing national universal HCV testing guidelines and recommending EMR order sets for all adults
 - Offered provider education
- 1 HS following HCV testing guidelines and offering HCV treatment in OBGYN and Primary Care, but universal HBV not yet universal
 - Building order set and referral pathways for HBV triple screen

Thank You!