



# B Informed: Hepatitis B & Delta in the Harm Reduction Space

BEATRICE ZOVICH & HOLLY MOORE

6TH MARCH 2024

# Background

---



- People who use drugs (PWUD) are especially vulnerable to blood-borne viruses, including HIV and hepatitis B, C, and D.
  - HIV & HCV have been well-documented & studied in this population.
  - Acute HBV rates have been rising among PWID since 2009.
  - Limited data about HDV exists for any population.
  - Low awareness of hepatitis B and D among at-risk communities & providers who serve them
  - There is an urgent need to increase awareness and accurate knowledge.
-

# Phase One Objectives

---



- Despite existing guidelines recommending hepatitis B screening & vaccination among PWUD (and now universally among all adults in the United States), diagnosis and prevention efforts for HBV and HDV remain sporadic.
  - We wanted to assess some of the barriers and facilitators to identifying hepatitis B and delta cases and susceptibility in this population.
  - Evaluate existing knowledge and awareness as well as educational needs and preferences
-

# Phase One Methods

---



02

03

Provider-  
focused  
survey

Key  
informant  
interviews

Participant  
demographic  
survey

---

# Phase One Data Analysis



03

04

05

Survey respondents categorized into three roles

Multiple outcome variables measured by survey

Interviews recorded & transcribed verbatim

Coding and qualitative analysis, thematic categories

Creation of educational campaign

# Results of Provider Surveys



**Table 1**

*Demographics of provider study participants*

Category	Frequency	% of total (N = 56)
<b>Role</b>		
Public Health and Community Workers	20	35.71
Clinical Medicine	35	62.50
Research	1	1.79
<b>Years in their Role</b>		
0-5 years	25	44.64
6-10 years	11	19.64
11-15 years	5	8.93
16-20 years	3	5.36
More than 20 years	12	21.43
<b>Location of Work</b>		
Academic Institution	29	51.79
Federally Qualified Health Center	1	1.79
For-Profit Hospital	1	1.79
Non-Profit Hospital	7	12.50
Private Practice	3	5.36
Public Health Department	4	7.14
Public Hospital	2	3.57
Specialist Clinic	2	3.57
Other	12	21.43

# Results of Provider Surveys



**Table 2**

*Provider Barriers to Hepatitis B and D Care*

Barriers	Frequency	% of total (N = 56)
<b>HBV Screening Barriers</b>	<b>37</b>	<b>66.07</b>
Insurance	15	26.79
Competing Priorities	14	25
Guideline Complexity	8	14.29
Assume Unable to Manage Infection	7	12.5
Difficult Risk Factor Discussion	7	12.5
<b>HBV Vaccination Barriers</b>	<b>N/A</b>	<b>N/A</b>
Patient Hesitancy	25	44.64
Competing Priorities	18	32.14
Insurance	11	19.64
Cost	9	16.07
Guideline Complexity	9	16.07
<b>HDV Screening Barriers</b>	<b>46</b>	<b>82.14</b>
Knowledge of Tests	12	21.43
Insurance	10	17.86
Guideline Complexity	10	17.86

# Results of Provider Surveys

---



- Knowledge tests
    - Overall low awareness of HBV/HDV
  - Services provided
    - Fewer than half conducted HDV screening regularly
  - Explanatory and counseling confidence
    - CHW confidence was significantly lower than that of clinicians
-



# Identified Themes from Interviews

---

## Knowledge and Awareness of HBV/HDV

- Very low awareness
- Confusion about different types of hepatitis
- Very common myths are that hep B can be transmitted similarly to hep A, through fecal/oral contamination, or through casual contact or the air
- Lack of awareness among providers is common - many did not know about prevalence in PWUD communities

*“Honestly, I don't know much about it, and I would like to know more...it's a scary thing and it's real. The only thing I really know about is hep C. I don't know about any other hepatitis.”*

*“So, for example, we were told at one point, you shouldn't screen everybody for hepatitis B. Now we should just vaccinate. We should revaccinate all adults...But how we should be thinking about it in our particular context, I don't think we have any guidance on that.”*

## Stigma around HBV/HDV

- Lots of stigma in the harm reduction space in general
- Also related to wounds, which can impede testing

*“People just feel like they're dirty or that they've made a mistake...And that can sometimes affect people's willingness to do treatment at that time... So I think the counseling that happens at diagnosis is really important.”*

*“Yeah, I think the biggest stigma...is the lab draws. Oftentimes [PWUD] also have wounds or abscesses on their arm, so they don't want to go to a commercial lab.”*

# Identified Themes from Interviews

---

## Trust in Healthcare Providers

- Concerns about confidentiality
- Feelings of not being listened to or taken seriously

*“I've in the past tried to explain things to doctors and even ask questions and they seem like they don't want to be bothered. They don't care. It seems like just a job to them and that's it.”*

*“I think people also have a lot of trauma around doctors and in the medical field oftentimes substance users are very much mistreated, they're right. So I think that trauma very much negates people wanting to engage in care.”*

## Prevention

- Barriers with vaccine access and hesitancy
- Need for bodily autonomy
- Cost is an issue

*“The primary focus is a place to eat and a place to sleep. So, until we as a nation improve ways for people to maintain secure housing. I don't see vaccination being a priority for that population.”*

*“PWID may sometimes choose not to vaccinate because they feel they get to exercise some type of agency over what they are putting in their body, which is taken away from them a lot of times in the drug supply they are given.”*

*“It's really really really hard to get hep B vaccines at a low cost (...). Our patients frequently don't have outside primary care providers and they're not able to afford the copays for hepatitis B vaccines like at a pharmacy. Right now we're paying for all of our hep[atitis] B vaccines out of pocket at astronomical cost.”*

---

# Identified Themes from Interviews

---

## Current Landscape of Screening Practices

- Lack of HDV screening available at commercial labs
- Challenges with external referrals
- Provider time/capacity

*“...getting people, specifically our patients, to like another hospital system and getting them in and having them make the appointment is a challenge. Then sometimes it's hard for people to keep appointments if they're unhoused and have other priorities to take care of.”*

*“Hepatitis delta testing is insane, it's a lot of leg work that a lot of times providers don't have time for.”*

## Recommendations and Needs from Community

- Enthusiasm for a targeted and culturally competent campaign
- Clear info about transmission, risk factors, viable testing practices, and behaviors that can and cannot prevent transmission of hepatitis B and delta.
- Also clearly outline the different types of hepatitis.
- Present risk factors in a non-stigmatizing way

*“...factual information for sure, how people can be infected, how it can impact their lives if they're not treated...written literature to probably feel empowered to have conversations.”*

*“Don't put it out like that, like call me out in a different way... We already know, we know and we don't want to be told again. We know.”*

# Phase One Main Takeaways

---



- Significant lack of awareness and stigma
- Major barriers to accessing services
- Tailored and thoughtful education and awareness efforts are crucial.
- Provider training, especially at the primary care and community health level
- One-stop shop model with the first dose of vaccine administered simultaneously with screening would be helpful
- Integration with HIV/HCV services
- Partnerships with health departments for vaccine is important.

# Phase Two Objectives

---



- Improve HBV and HDV awareness
  - Accurately assess prevalence of HBV and HDV in this population
  - Facilitate connection to HBV vaccination or to HBV or HDV management and care as appropriate
  - Pilot program for hepatitis B and delta outreach, education, and screening within a harm reduction setting in the United States
    - Provide a model for integration of HBV and HDV screening in this population
-

# Phase Two Methods



01

Daily Recruitment

02

Informed  
Consent and  
Demographic  
Survey

General demographics  
High-risk behaviors

03



Blood Test

3mL  
Triple Panel  
HBsAg  
HBsAb  
HBcAb  
anti-HDV

04



Return for  
Results and Next  
Steps

# Phase Two Data Analysis



02

ODK Data  
Extraction and  
Cleaning

Fisher's Exact Test:

Odds ratios and significance  
of variables for HBV blood  
markers and behavioral risks

03

Backward Stepwise  
Logistic Regression:

Identify possible predictors  
of the outcome for HBsAg  
and HBcAb tests

# Screening Results



**Table 1**

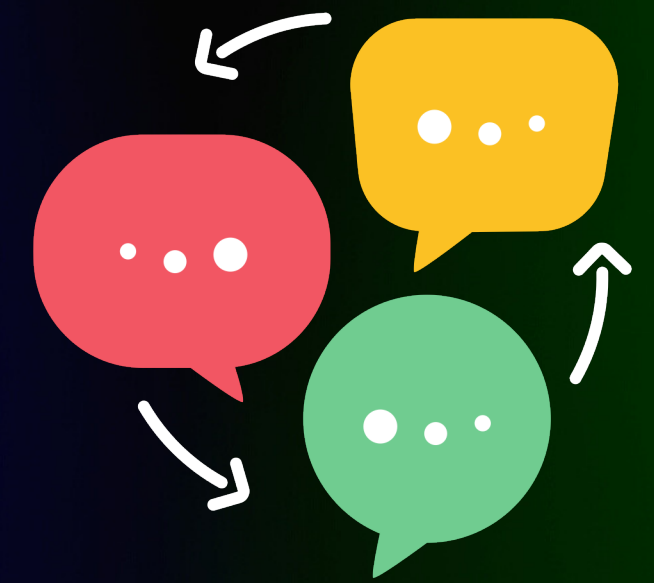
*Results of Hepatitis B and D Screening*

Results	N	%		
HBsAg+	10	1.9		
Isolated Core	10	1.9		
anti-HDV	1	0.19		
Protected	362	70.5		
Past Infection	92	25.4	(17.9)	
Vaccinated	270	74.5	(52.6)	
Not Protected	130	25.3		
First Dose	10	7.6	(1.9)	
Returned	456	88.8		



# Phase Two Discussion

---



- Increase in vaccine protection and decrease in virus susceptibility
  - Similar findings to a previous study for prevalence of HBV and HDV for this population
  - Previous incarceration most correlative factor for current infection
  - Experience with housing instability or with transactional sex most correlative factor for core antibody positive
-

# Phase Two Lessons Learned

---

02

Loss to follow  
up

03

Incentive pros  
and cons

04

Linkage to care  
availability in  
harm reduction  
space

Skilled  
phlebotomist or  
Point of Care  
test needed

---

# Recommendations & Calls to Action

---

- Approval of Point of Care testing in the US
  - Expanding capacity of harm reduction organizations and syringe service programs
  - Establishing and maintaining connections between local health departments and these organizations
-

Thank you! Questions?