

“It’s such a nasty virus”: Hepatitis D mapping project (a.k.a. A Situational analysis to identify the priorities for a hepatitis D public health response in the Asia Pacific)

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Burnet
reach for the many



At Burnet Institute, we proudly acknowledge the Boon Wurrung people of the Kulin Nations as the Traditional Custodians of the land on which our office is located. We pay our respect to Elders past and present, and extend that respect to all First Nations people.



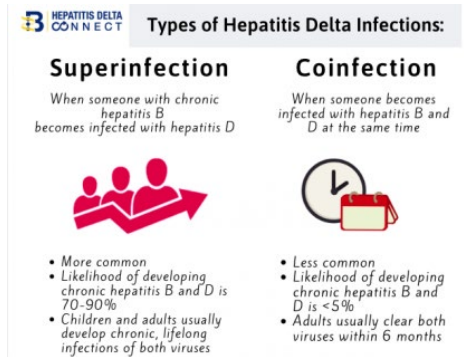


Overview

- Why?
- Methods/Analysis
- Defining the problem
- Testing
- Clinical testing and management
- Public health responses
- Barriers
- Where next...

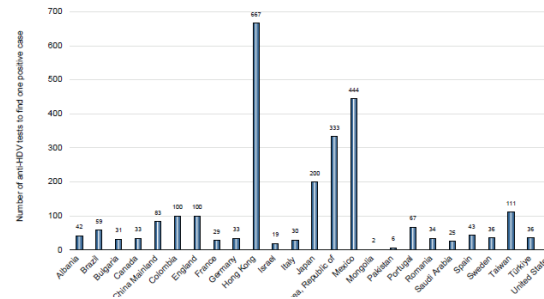


The problem: “It's just such a nasty virus.”



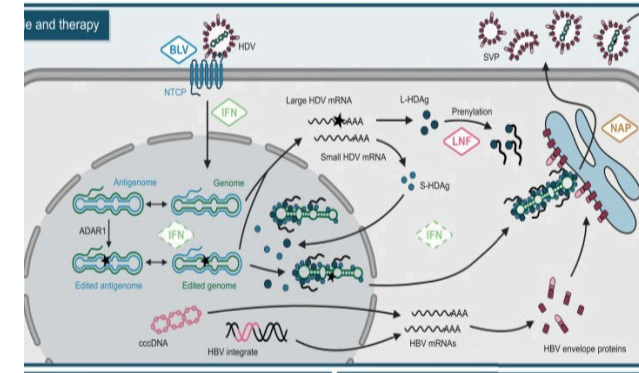
The lived infection.

- No hepatitis D without hepatitis B
- Different impact with different transmission routes
- WHO describes hepatitis D as a cancer-causing virus.



The numbers

- Testing is not systematic
- Lok and Negro talk of between 12 million and 72 million people with hepatitis D
- This slide comes from a debate playing out in the Journal of Hepatology about the numbers of people with hepatitis D.



The viral description

- HDV has a single-stranded, circular RNA genome.
- Hepatitis D is a defective RNA virus that needs hepatitis B to replicate.
- It is the most severe viral hepatitis, causing faster progression to cirrhosis, liver failure, and HCC than hepatitis B alone.



Methods

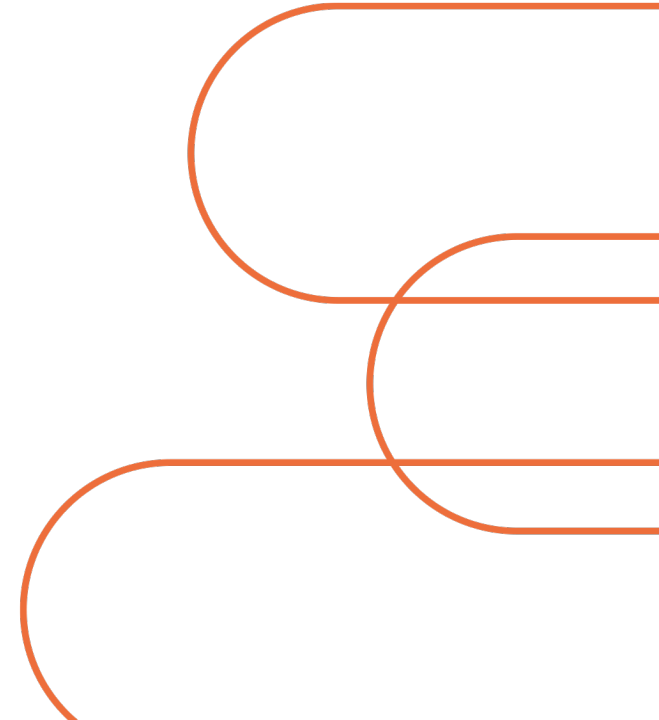
Interviews

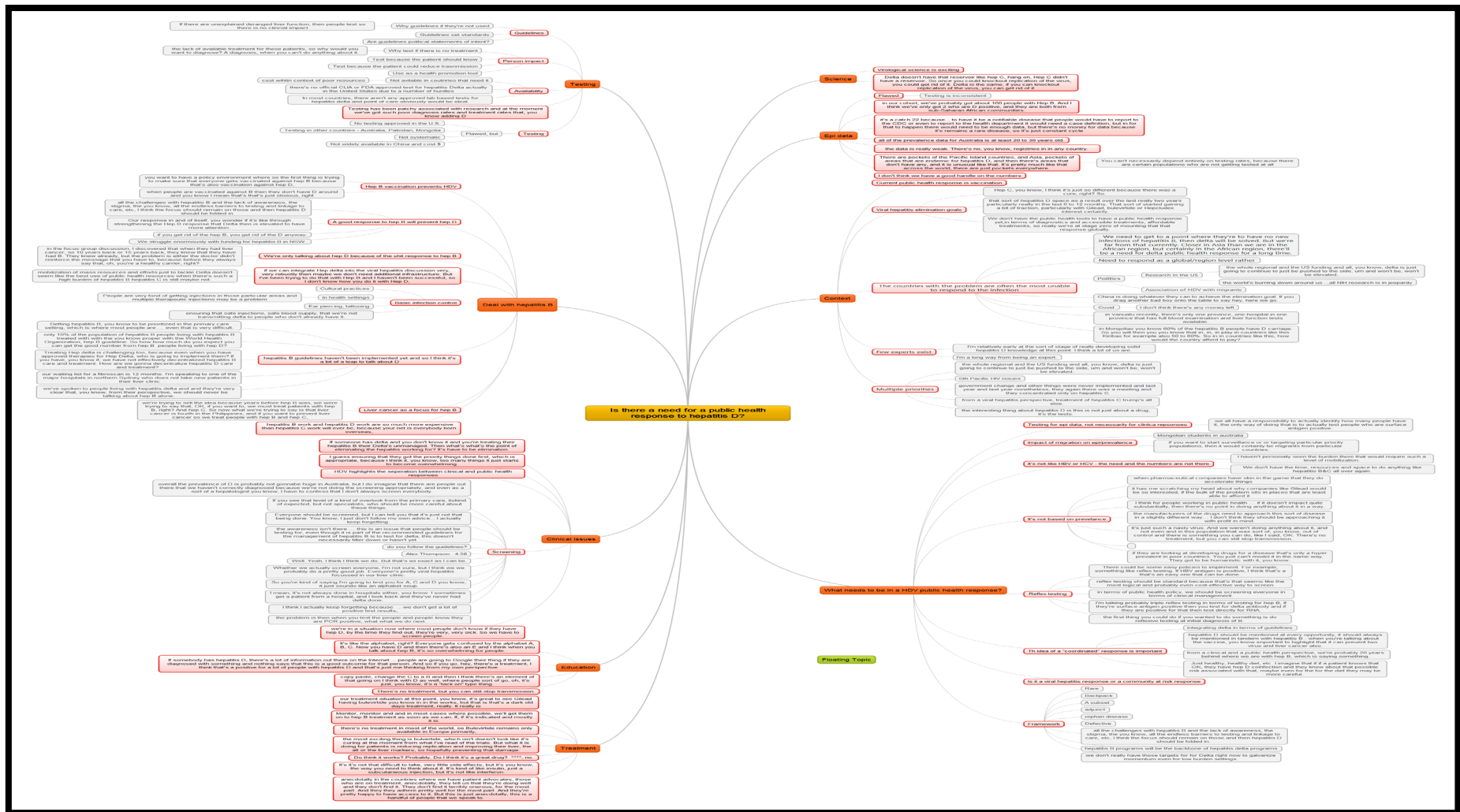
- Viral hepatitis specialists
- Infectious Diseases specialist
- Primary care specialists including nursing staff
- Virologists
- Community sector-based educators and advocates
- Epidemiologists
- Public health and social researchers
- Policy professionals
- People with hepatitis B

Locations

Locations:

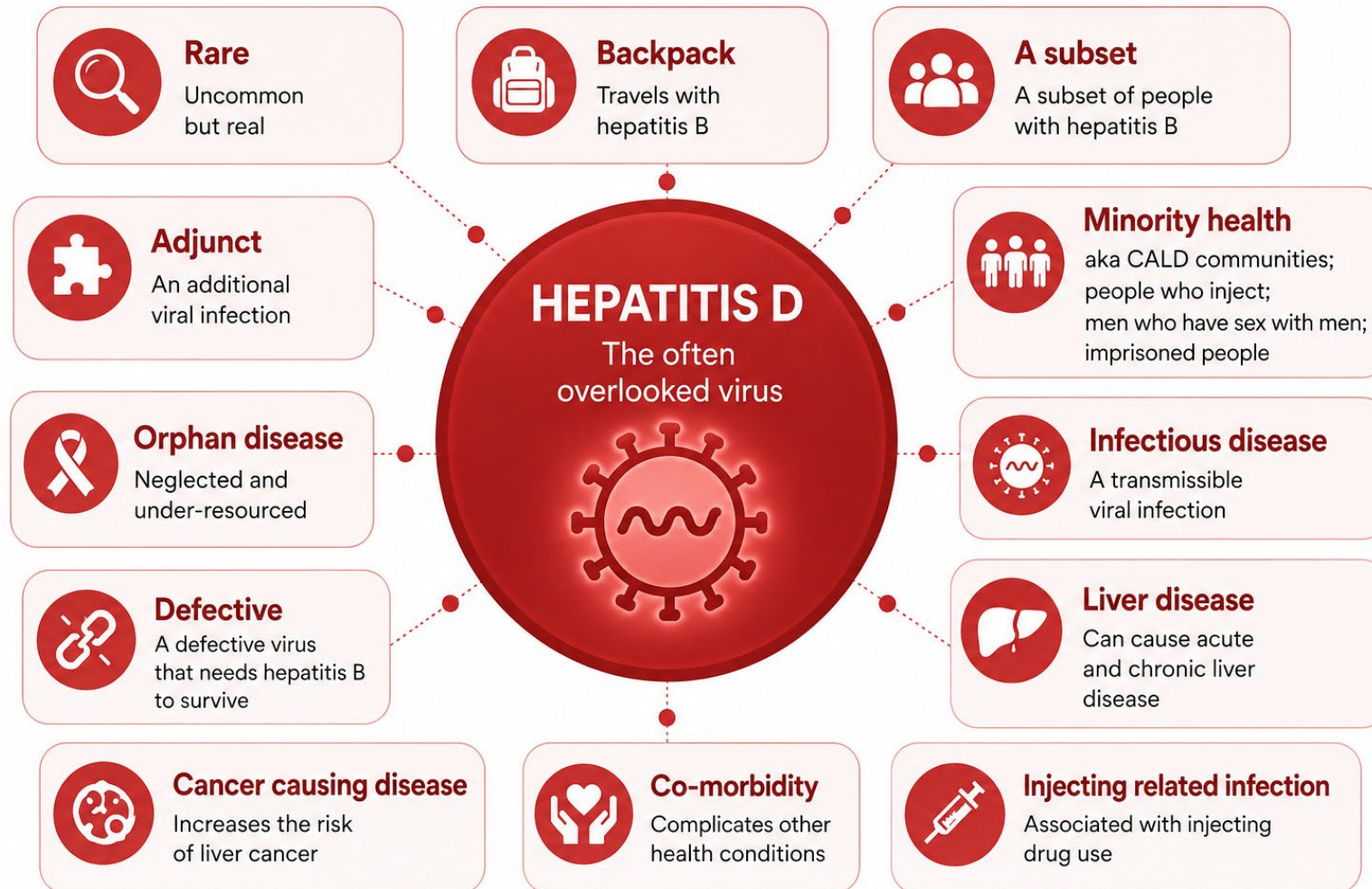
- Australia
- Philippines
- China
- United States
- Spain
- India
- Pakistan
- Mongolia







Descriptors:



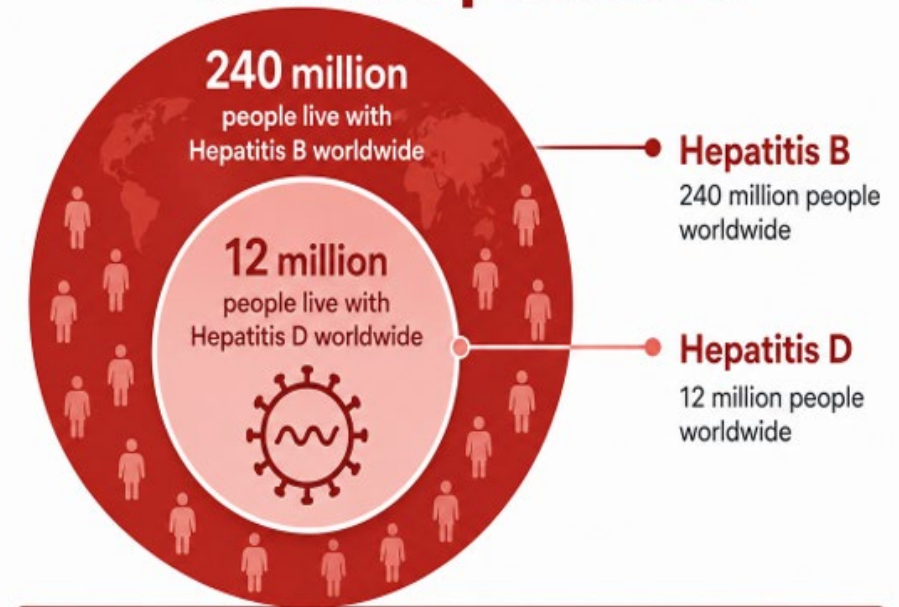


If you get rid of the hep B, you get rid of the D anyway.

*When people are vaccinated against B,
then they don't have D around and you
know I mean that's just obvious, right.
(GP)*

*“If someone wanted to fund a hepatitis D
program, they’d have to make sure the
hepatitis B program [was in place].” (GP)*

Hepatitis D is inseparable from Hepatitis B.



There is no hepatitis D without hepatitis B.
Eliminating hepatitis B is essential to eliminate hepatitis D.

Sources: World Health Organization (2024) Hepatitis B fact sheet; Polaris Observatory (2024) Hepatitis D data.



Context: Defining the problem.

We all have a responsibility to actually identify how many people have it, the only way of doing that is to actually test people who are surface antigen positive. (CNC)

In most countries, there aren't any approved lab-based tests for hepatitis delta and point of care obviously would be ideal. (Advocate)

There are pockets of the Pacific Island countries, and Asia, pockets of areas that are endemic for hepatitis D, and then there's areas that don't have any, and it is unusual like that. It's pretty much like that across the world. (Scientist)



Context: Testing (U.S.A.)

It's a Catch 22 because .. to have it be a notifiable disease that people would have to report to the CDC or ... to the health department, it would need a case definition. But in for that to happen there would need to be enough data, but there's no money for data because it's remains a rare disease, so it's just constant cycle (Public Policy)





Context: Why Test?

Why would you want a diagnosis, when you can't do anything about it? (Scientist)

We're in a situation now where most people don't know if they have hep D, by the time they find out, they're very, very sick. So we have to screen people. (Advocate)

If someone has Delta and you don't know it and you're treating their hepatitis B, their Delta's unmanaged. Then what's the point of eliminating hepatitis? (Clinician)





Context: Clinical testing

There are people out there that we haven't correctly diagnosed because we're not doing the screening appropriately ... I have to confess that I don't always screen everybody. (Clinician)

(Q. Do you follow the guidelines?): Yeah, I think we do. But that's as exact as I can be. (Clinician)

I sometimes get a patient from a hospital, and I look back and they've never had delta done. (GP)

If there are unexplained deranged liver function, then people test so there is no clinical impact (Clinician)



Context: Clinical management

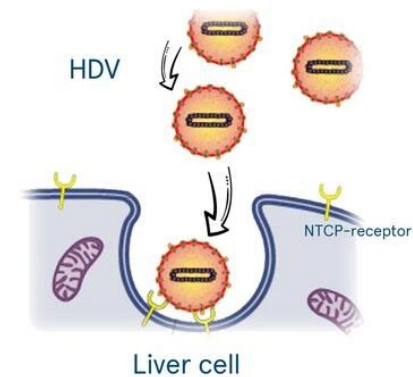
*There's no treatment in most of the world, so Bulevirtide remains only available in Europe
(Social Researcher/Advocate)*

*Bulvertide ... isn't ...curing at the moment, ... but ... is reducing replication and improving their liver, the alt or the liver markers.
(Scientist)*

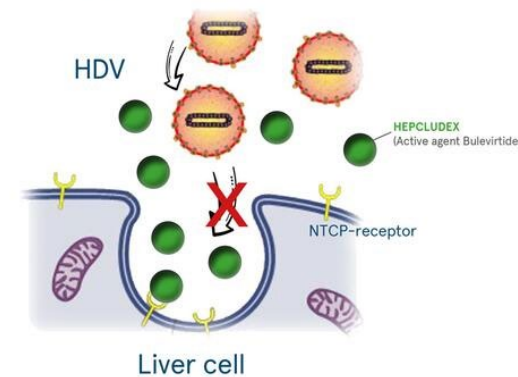
*Do think it works? Probably. Do I think it's a great drug? ****, no. (Clinician)*

MECHANISM OF ACTION OF HEPCLUDEX

a) without therapy



b) with therapy





Public health responses: Moving from stage zero

The interesting thing about hepatitis D is this is not just about a drug, it's the tests. (Viral Hepatitis Policy)

We don't have the public health tools to have a public health response yet, in terms of diagnostics and accessible treatments ... we're at stage zero of mounting that that response globally. (Public Policy)

We need to ... have no new infections of hepatitis B, then delta will be solved ... Closer in Asia than we are in the African region, but certainly in the African region, there'll be a need for Delta public health response for a long time. (Public Policy)



Public health responses: Eliminate hepatitis B

Only 10% of the population of hepatitis B people living with hepatitis B ... tested (Advocate).

Treating Hep Delta is challenging ... who is going to implementif we have not effectively decentralized hepatitis B care and treatment. (Advocate)

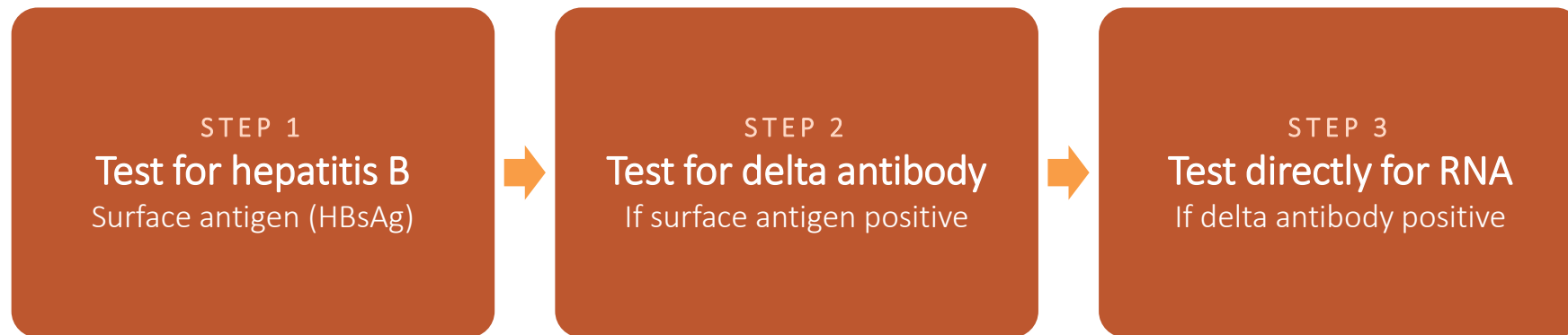
Getting hepatitis B prioritised in the primary care setting, where most people are ... even that is very difficult. (Social Researcher)





Public health responses: What could be done now

*The focus should remain on all the challenges with hepatitis B – awareness, stigma, barriers to testing and linkage to care – and then hepatitis D should be folded in.
(Social Researcher)*



*“There could be some easy policies to implement ... like reflex testing if HBV antigen is positive ... that’s an easy one that can be done.”
(Clinical Researcher)*

“We all have a responsibility to identify how many people have it: the only way of doing that is to actually test people who are (hepatitis B) surface antigen positive. (Viral Hep Nurse)



Barriers: funding, competing priorities and health systems

We don't really have those targets for Delta right now to galvanize momentum even for low burden settings. (Advocate)

*The whole regional and the US funding and Delta is just going to continue to just be pushed to the side and won't be elevated.
(Public Policy)*

*China is doing whatever they can to achieve the elimination goal.
If you drag another bad boy onto the table to say hey, here we go... (Advocate)*

*In Vanuatu recently, there's only one hospital in one province that has full blood examination and liver function tests available.
(Public Health Policy)*

“It’s such a nasty virus”

Where next?



Immediate priorities

- Improve understanding of hepatitis D burden through more systematic testing.
- Explore universal/reflex hepatitis D testing for people who are HBsAg positive.
- Strengthen implementation of existing hepatitis B testing and management guidelines.



Research priorities

- Quantify hepatitis D prevalence across Australia and the Asia-Pacific.
- Understand barriers to testing and evaluate reflex testing pathways.
- Build evidence to inform hepatitis D public health indicators.



Policy implications

- Embed hepatitis D within hepatitis B policies and models of care.
- Support high-burden countries through regional collaboration.
- Prepare health systems for emerging therapies while maintaining focus on hepatitis B elimination.



Key message

There is no hepatitis D elimination without hepatitis B elimination-but hepatitis D testing should become a routine component of quality hepatitis B care.