Q&A

Corinna Dan: Elimination enthusiast

We have the tools to eradicate hepatitis B and the liver cancer and end-stage disease it brings, says Corinna Dan, senior director for public-health practice at Maximus, a global government services firm in Reston, Virginia, and a former lead expert on viral hepatitis for the US Department of Health and Human Services. With sufficient resources and leadership, she tells *Nature*, we could eliminate the disease worldwide.

How preventable is hepatitis B?
It is a very stable virus. Unlike influenza and SARS-CoV-2, it does not mutate very much, which means that the vaccine we have is very effective at preventing infection, and is likely to remain so until we ultimately eradicate the disease.

But there's no cure. Is that on the horizon?
I think that's reachable. A small percentage of people who have long-term infections do fight off the virus, so there must be some mechanism for cures that we haven't quite identified yet. Before COVID-19, we kept asking the National Institute of Allergy and Infectious Diseases to do more on hepatitis B and hepatitis C. The group that works on hepatitis B could use more funding to expedite a cure.

The World Health Organization (WHO) hopes to eliminate viral hepatitis globally by 2030. Is the United States on track to do that?
We could meet the WHO goals, absolutely — we have the tools. We have eliminated hepatitis A in Alaska Natives, for example, through childhood vaccination and other measures. And we've seen rates of hepatitis B plummet in communities where focused campaigns of screening, vaccination and treatment have been implemented.

The hepatitis B vaccine is a game-changer. Vaccination at birth became routine in the mid-1990s, so Americans younger than about 25 are very well protected. Hepatitis B is now mainly a problem in individuals born elsewhere who were not vaccinated, and in older people born before the vaccine was introduced. Vaccinating adults — especially people who inject drugs, who make up about one-third of acute hepatitis B cases — would be a terrific way to further prevent infections, but there hasn't been a focus on adult vaccinations in this country.

Could point-of-care screening make a difference?
A point-of-care test would be very helpful. We've seen this in COVID-19, HIV and hepatitis C, for which tests can provide a result in 20–30 minutes. In the United States, we buy millions of HIV tests annually and distribute them for free or at low cost, paid for by the Centers for Disease Control and Prevention. This isn't the case for hepatitis B. When people are offered rapid HIV tests or rapid hepatitis C tests, there is also cause to test for hepatitis B. Accurate point-of-care tests for hepatitis B are approved in other countries, but not in the United States.

Given the level of infection, should the United States invest more in preventing and treating hepatitis B?
Yes. I don't think there's equity in the resources being put towards hepatitis B compared to other infectious diseases. About 1.2 million people have HIV in the United States. The number of people with hepatitis B is similar — between 1 million and 2 million. So the disease burden is there. Also, the communities that are affected are largely immigrants and their children, who are not necessarily well off or very knowledgeable about the US health-care system.

What can we learn from efforts elsewhere?
International collaboration is really important. We could learn, for example, from research in China and South Korea, where 10% of the population has hepatitis B — and more than that in some pockets. Mongolia had an incredibly high rate of hepatitis B and hepatitis C, and of people with both diseases together. Largely because it has a centralized health system, it was able to systematically test almost everyone in the country for hepatitis B, C and D. The more that the United States can similarly centralize hepatitis efforts, and make them part of a routine reimbursable service through regular medical care, the better. Centralization helps also to normalize testing and reduce stigma.

Has COVID-19 shed light on hepatitis challenges?
We've learnt more about how to communicate risks to the public and the importance of taking action. The COVID-19 response wasn't centralized, especially during the beginning of the pandemic; it was pushed down to the state, or even local, level. But the more that different voices promote different actions, the less likely it is that people will be motivated to take the same prevention steps consistently. We've also had difficulty communicating the risks of viral hepatitis. Awareness has often been low, even among some health-care providers. Making things as simple and as consistent as possible is really helpful to build trust, so a person will say, OK, I want to take the next step and get screened or get a vaccine. We've missed that opportunity by a pretty wide margin on COVID-19 and hepatitis B.

What are your hopes for hepatitis B?
Elimination requires a multi-faceted, global approach and consistent implementation of efforts over time. If we got every baby vaccinated, and eliminated transmission from mother to child, we'd still have an older group of people with chronic infections. But with adult vaccination programmes and investment in testing, you could reduce the rate of community infection over 50 years, or maybe as long as 70 years, until nobody has hepatitis B. We can eradicate this infectious disease, as a planet, as we did with smallpox. We're very close to doing it in this country.

Interview by Eric Bender.
This interview has been edited for length and clarity.