



Taking aim: The policy response to viral hepatitis in Uganda

The paucity of data is at the centre of Uganda's struggle to craft a strategic plan to tackle viral hepatitis and deploy scarce resources to the critical gaps in the system

"What you don't know can't hurt you" doesn't apply to Uganda's health challenges with hepatitis B and C. Data on prevalence are sparse, particularly for the hepatitis C virus (HCV). Based on small-scale studies, prevalence of HCV is estimated at 1-2% of the total population, says Ponsiano Ocama, chair of the department of medicine and academic hepatologist at Makerere University College of Health Sciences. Estimates for the hepatitis B virus (HBV) are better but based on an HIV impact assessment survey conducted in 2016. It places prevalence at 4.3% of the population aged between 15 and 49 years, with the highest prevalence in the northern region of the country.¹

There is evidence, albeit limited, that viral hepatitis is a growing health challenge in Uganda. Screening of blood donations for HBV and HCV has thus far been the primary source for identifying infections. According to a government-issued press release, Uganda Blood Transfusion Services has reported an

increase in HBV found in blood donations from 1.9% in fiscal year 2012/13 (July-June) to 2.3% in 2016/17, confirming the higher prevalence in the northern and eastern parts.² In addition, researchers have recently discovered three new strains of HCV in Uganda.³

Importantly though, these figures exclude prevalence in children. In Uganda, HBV is mainly acquired before the age of five, explains Dr Ocama, believed to largely be the result of mother-to-child transmission. Among adults,



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Dr Olaro Charles, director curative services, Ministry of Health, Uganda

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¹ "Uganda HIV/AIDS Country Progress Report July 2016-June 2017", 2017, https://www.unaids.org/sites/default/files/country/documents/UGA_2018_countryreport.pdf

² Ugandan Ministry of Health, "World Hepatitis Day 2018: Press statement on the progress of implementation of hepatitis B vaccination program in Uganda", 2018, <https://reliefweb.int/sites/reliefweb.int/files/resources/Press%20Statement%20-%20HEP%202018.pdf>

³ *The Telegraph*, "Calls for more tailored treatment as new strain of hep C found in Uganda", December 18th 2018, <https://www.telegraph.co.uk/news/0/calls-tailored-treatment-new-strain-hep-c-found-uganda/>

modes of transmission are thought to include pre-used needles or shared blades, arising from skin scarification practices prevalent in some parts of the country.

The health and financial burden of hepatitis B and C on patients and the government can be high, but with no robust estimates of the economic burden, the severity in Uganda is difficult to assess. One outcome that experts we interviewed emphasise is that chronic hepatitis can progress to liver cancer. At the Uganda Cancer Institute, the largest public-sector cancer institute in East Africa, “out of 280 liver cancer patients in 2018, 80-90% were attributable to viral hepatitis,” explains Dr Olaro Charles, director curative services at the Ministry of Health. Addressing chronic hepatitis, he argues, is a way to address the cancer challenge too. Policymakers should assess the short-term costs to test and treat viral hepatitis against the future savings in healthcare expenditure if fewer people require cancer care.

In 2014 the government acknowledged that hepatitis is a serious health concern, making a public declaration to address it. The policies, however, focus almost exclusively on HBV with little or no mention of HCV. In this article, we examine the state of the policy response and priority areas for the future, as Uganda aims to meet this health challenge.



US\$3m

Amount earmarked in the annual government budget to tackle HBV in Uganda.

Closing the information gap: Reporting and public awareness

An estimated US\$3m of the annual government budget has been earmarked to tackle HBV in Uganda. In 2015 they launched a screening and treatment programme exclusively for HBV, targeting those above the age of 15. Those who test negative are given vaccinations, as a preventative measure. This effort started in the north, where the prevalence is very high, followed by east Uganda, with the aim of covering the whole country.

Information gathered as part of the programme will be valuable, providing more data on the prevalence of HBV than what is currently available. This will be important for completing the government’s strategic plan to tackle hepatitis, which is currently under development, and measuring progress in subsequent years. To strengthen its reporting system, in early 2019 the Ugandan government was given access to the Global Hepatitis Reporting System, which was created by the World Health Organisation (WHO).⁴ As part



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Kenneth Kabagambe, executive director, National Organisation for People Living with Hepatitis B

⁴ WHO, “WHO Supports Uganda to Improve Viral Hepatitis Data Reporting”, March 27th 2019, <https://www.afro.who.int/news/who-supports-uganda-improve-viral-hepatitis-data-reporting>

of this, various stakeholders in the healthcare system received two days of training by the WHO. Lessons on best practice learned over the course of the African Hepatitis Summit in Kampala in June 2019 may inform the strategy as well.

In the absence of a formal framework, non-governmental organisations (NGOs) such as the National Organisation for People Living with Hepatitis B (NOPLHB) have been very active in Uganda. They advocate for the rights of hepatitis patients and improving diagnostic and clinical services for patients. Importantly, they help to raise public awareness about HBV prevention, care and support services.⁵

Resistance to testing for hepatitis stems from stigma and misinformation. Kenneth Kabagambe, the executive director of

NOPLHB, says, “Some people think that hepatitis is transmitted like the Ebola virus. So, whenever someone is identified in the community as having hepatitis, the whole community may exclude this person, even in families.” A wider public awareness programme can help to correct misinformation, strengthen prevention practices and encourage people to get tested and treated. Adopting a multi-channel approach—through television, radio and billboards—could help reach the masses.

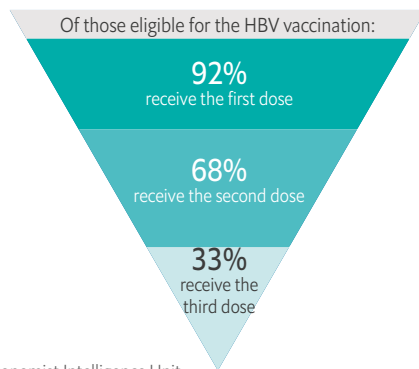
The building blocks to prevent, test and treat

Experts we interviewed point to health worker training as a priority going forward. Health workers have received training as part of the government’s wider efforts to



⁵ World Hepatitis Alliance, “World Hepatitis Day 2018 Global Summary Report”, 2018, http://www.worldhepatitisalliance.org/sites/default/files/resources/documents/whd_report_2018_v3.pdf

Figure 1: Completion rate of the HBV vaccination programme in Uganda



Source: The Economist Intelligence Unit

improve injection safety,⁶ but more specific training on viral hepatitis is needed. “At the moment, we still have some health workers who don’t understand what hepatitis B and C is,” states Mr Kabagame. Dr Ocama concurs, explaining that there are challenges with the quality of training programmes. These need to be structured around an approved curriculum, enabling health workers to better identify at-risk patients and effectively treat those infected. To this end, the government is developing treatment guidelines. Broader protections include policies announced in 2014 requiring all health workers to be vaccinated for hepatitis B.

To tackle the prevalence of HBV among children, the government introduced a vaccination programme for infants at six weeks after birth. Based on one study in Uganda, the programme seems to be effective: among 73 children who had been vaccinated, none were infected with HBV.⁷ To strengthen this, Mr Kabagambe advocates for the “birth dose”,

under which infants receive the first dose within 24 hours after birth, in line with WHO recommendations.⁸ To safeguard against mother-to-child transmission, hepatitis testing should be made mandatory for pregnant women, asserts Mr Kabagambe.

Another gap in the system in Uganda is the completion rate of the vaccination programme among those who test negative. At present, 92% of those eligible for the hepatitis B vaccine receive the first dose, 68% receive the second dose and only 33% receive the third dose.⁹ Educating patients on the importance of vaccinations and completing treatment is part of the solution, and should be a core pillar of the country’s strategy for preventing and reducing transmission. Another part of the solution will be driving operational efficiency, making these subsequent doses more accessible to patients living in remote areas in particular.

The finance function

Across the system, improving access to testing and treatment has two components, both rooted in financial constraints. The first is that patients are required to pay for some tests before starting treatment. This is resulting in delayed diagnosis, explains Mr Kabagambe: “We are seeing that most of the patients who are infected are going to hospitals when they are at the end stage of the disease, when it is very advanced.”

The second impediment to testing and treating is that diagnostic equipment, especially in rural areas, is often made available through donor

⁶ WHO, “Injection safety work in countries”, <https://www.who.int/infection-prevention/countries/injections/en/>

⁷ E H Teshale, S Kamili, J Drobeniuc, M Denniston, B Bakamutamaho, R Downing, “Hepatitis B virus infection in northern Uganda: Impact of pentavalent hepatitis B vaccination”, *Vaccine*, Volume 33, Issue 46, November 17th 2015, pages 6161-6163, <https://www.sciencedirect.com/science/article/pii/S0264410X15013341#!>

⁸ WHO, “Hepatitis B”, <https://www.who.int/immunization/diseases/hepatitisB/en/>

⁹ Ugandan Ministry of Health, “World Hepatitis Day 2018: Press statement on the progress of implementation of hepatitis B vaccination program in Uganda”, 2018, <https://reliefweb.int/sites/reliefweb.int/files/resources/Press%20Statement%20-%20HEP%202018.pdf>



“We are now trying to see the feasibility of having HBV services integrated to the HIV setting. And then, if it is feasible, we are trying to assess what kind of additional funding will be required.”

Dr Ponsiano Ocama, chair of the department of medicine and academic hepatologist, Makerere University College of Health Sciences

funds, which do not take into consideration maintenance and other recurrent costs.

To tackle the financing challenge, opportunities to integrate hepatitis services with HIV programmes could be leveraged. There are many similarities between HIV and hepatitis in terms of transmission, disease progression, diagnostic and monitoring equipment required, and in some cases the treatment too. Globally, between 5% and 20% of people living with HIV are also infected with HBV.¹⁰ “We are now trying to see the feasibility of having HBV services integrated to the HIV setting,” says Dr Ocama. “And then, if it is feasible, we are trying to assess what kind of additional funding will be required.”

The Global Fund to Fight AIDS, TB and Malaria now allows applicants to include work to address HIV comorbidities such as hepatitis in their funding requests. However, such requests would need to come from the

country’s allocated funding for HIV, which already falls short of what is required in the case of Uganda.¹¹ That may explain why funding for hepatitis has so far relied entirely on domestic sources, but this does not preclude opportunities for funding integration in the future.

Looking ahead

The Ministry of Health is taking some positive steps to address hepatitis in Uganda, with a dedicated budget and staff as well as the development of a strategic plan. But the plan must take into consideration various facets of the health issue.

Enhancing reporting from the screening programme under way as well as a planned nationwide survey will provide much-needed data on HBV and HCV prevalence. This will enable the government to craft evidence-based policies and plans with specific targets. Without plans and targets, it will be difficult to assess progress and the degree of alignment with WHO recommendations.

Emphasis on health worker training and providing treatment guidelines will be critical for the successful implementation of the strategy. In addition, the government can leverage the expertise of active NGOs in the country and build on their efforts to raise public awareness and advocate for patients’ rights and services. Broader education efforts to erase the stigma attached to these curable and preventable diseases will be an important driver of success as Uganda works towards the WHO goal of eliminating hepatitis B and C by 2030.

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¹⁰ M Rachel et al, “Uptake of hepatitis B-HIV co-infection screening and management in a resource limited setting”, *Hepatology, Medicine and Policy*, 2018, 3:3, <https://www.idi-makerere.com/wp-content/uploads/2018/07/Uptake-of-hepatitis-B-HIV-co-infection-screening-and-management-in-a-resource-limited-setting.pdf>

¹¹ The Global Fund, “Uganda”, <https://www.theglobalfund.org/en/portfolio/country/?loc=UGA&k=9e8b8568-adaa-4b26-af09-da5b112c51e7>