

CSC Evaluation and Monitoring Programme

Eliminating Hepatitis B Virus and Improving Gastrointestinal and Hepatology Healthcare in Zambia

Enock Syabbalo

Zambia is a landlocked country in Southern Africa with a population of approximately 18 million people. Despite progress in improving health outcomes in recent years the country continues to face significant healthcare challenges, including high maternal and child mortality rates as well as diseases such as HIV.

Additionally, like many developing countries Zambia has a high prevalence of gastrointestinal diseases, compounded by limited endoscopy capacity and a need for increased investment in both human and material resources. A shortage of skilled medical professionals in this area further restricts the availability of specialised medical services.

Infectious diseases also pose a major challenge, with conditions such as hepatitis B and C prevalent in certain regions. These viral infections contribute to a rising incidence of liver disease, with Zambia ranking 42nd globally and 22nd in Africa for liver disease death rates. Hepatitis B virus (HBV) is particularly common and is highly prevalent among people living with HIV. Although a vaccine is available and recommended, including for healthcare workers, access to and implementation of HBV vaccination remain challenging.

Enock Syabbalo, a Commonwealth Distance Learning Alumnus, is one of only 20 gastroenterologists in Zambia. He currently holds the position of Specialty Registrar in Gastroenterology and Hepatology at the University Teaching Hospital in Lusaka, the largest gastrointestinal (GI) unit in the country. He provides specialist care to both inpatients and outpatients with GI conditions, including performing diagnostic procedures such as upper endoscopies, colonoscopies, and liver biopsies. In addition, he supervises junior registrars and other trainee doctors in patient management.



Enock also actively participates in local and regional research. Recently, he applied the knowledge and expertise gained through his Commonwealth Scholarship studies to contribute to the development of a Ministry of Health position paper on implementing the Triple Elimination Strategy for hepatitis B, syphilis, and HIV. If successfully adopted, this strategy will standardise patient care by providing detailed guidelines for practitioners, ultimately improving patient outcomes.



Enock Syabbalo studied gastroenterology at Queen Mary University of London with the support of a Commonwealth Distance Learning Master's Scholarship from 2017 to 2019. After completing his studies, he assumed the role of Registrar in Gastroenterology and Hepatology at the University Teaching Hospital in Lusaka, Zambia, his home country.

Enock was motivated to pursue a degree at a UK university by his desire to enhance both research and practice in gastroenterology and hepatology in Zambia, which lags behind other countries in its efforts to eliminate hepatitis B. Since completing his studies, Enock has been providing specialist care to both inpatients and outpatients in his capacity as a Specialty Registrar. He is also actively involved in local and regional research and is contributing to shaping national policy on the elimination of hepatitis B, syphilis, and HIV.

Commonwealth Scholarship Distance Learning Studies in Gastroenterology

Confronted by the absence of advanced gastroenterology education opportunities in Zambia at the time, Enock decided to pursue further studies abroad to enhance his knowledge in this field. One of the professors who had taught him as an undergraduate in Zambia encouraged him to apply to Queen Mary University of London (QMUL) because of his own positive experience studying at the institution.

Enock was particularly interested in Master's-level studies to improve his abilities in both patient care and research.

'I was hoping I could help reduce the knowledge gap we have in gastroenterology and hepatology especially.'

A major draw for Enock in applying to QMUL was the opportunity to study under Professor Parveen Kumar, a prominent figure in medical education and gastroenterology, who teaches at QMUL and has authored the majority of the textbooks Enock had used in his previous studies.

'Prof. Parveen Kumar is a luminary in medical education. These are people who we idolise as medical students and medical doctors and now she's in a class and she's almost talking to you one-on-one. "And tell me what you think about this condition? Tell me what you think about that?" For me, that was really overwhelming and I'd go to my friends and say, "You see this textbook I have here? You know who my lecturer is?"

Enock felt similarly inspired by studying with Professor Qasim Aziz, a notable gastroenterologist specialising in neurogastroenterology, and Professor Sifrim. Both are leading specialists who have authored or contributed to much of the cutting-edge literature in this field.

Enock applied for a distance learning programme, which enabled him to study for a Master's of Science degree at QMUL while simultaneously completing his two-year medical foundation programme in Zambia. The Commonwealth Distance Learning Master's Scholarship made this possible, as it is specifically designed to support students who need to remain in their home country.

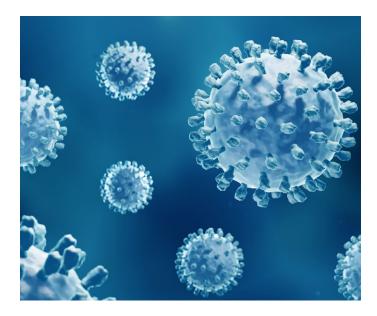
' [Studying at QMUL] was amazing. I think that it was one of the best academic experiences I ever had and I think it would've even been better if I had travelled but I think it was just as enriching nonetheless.'

Gastroenterology and hepatology in Zambia, and Africa in general, face significant challenges due to limited resources and a high burden of disease. There is a shortage of specialised medical professionals and limited access to diagnostic tools. The region also faces a high incidence of gastrointestinal and liver diseases, including hepatitis B, gastrointestinal cancers, and HIV-related gastrointestinal complications.

'We have a huge disease burden that is gastroenterology and hepatology. We have a large burden of hepatitis B and a good number of patients are having complications such as liver cirrhosis and also hepatocellular carcinoma. And these people are suffering these complications at younger ages, 30, before the age of 30 even.'

Enock attributes the high prevalence of hepatitis B to several regional challenges, including limited research capacity, delays in preventative strategies such as vaccinations, screening, and diagnosis, as well as insufficient funding for managing patients with existing conditions. However, strong political commitment and support from organisations such as the World Health Organisation (WHO) and UNICEF have helped to put plans in place to eliminate hepatitis B by 2030.

After completing his studies at QMUL, which provided muchneeded exposure to translational gastroenterology research
and clinical experience, Enock wanted to further enhance
his practical skills by spending more time caring for patients.
He therefore decided to continue his education by applying
for a Master of Medicine in Gastroenterology programme at
the University of Zambia, a clinical-based programme with
an internal medicine component. This allowed Enock greater
opportunities to follow the course of disease progression
with patients, helping him apply in practice what he had
learned during his Commonwealth Scholarship.



Enock reflects that the Most Significant Change he experienced was that his Commonwealth Distance Learning Scholarship changed how he understands his role as a doctor and member of a global community:

'Prior to the award, my worldview was rather narrow, and I was a relatively inexperienced physician.

My worldview has expanded, and the exposure provided by the MSc at Queen Mary University of London allowed me to be shortlisted for a prestigious gastroenterology PhD funding opportunity in Germany. Despite not being successful I am more open to international opportunities. I also have grown as a physician both in terms of knowledge and leadership. I am now more willing to provide advice and guidance to younger colleagues wanting to pursue similar opportunities that I have been fortunate to have had.'

'Going into it, I thought it would just be something more related to gaining increased knowledge and being a better doctor. But with the Commonwealth Scholarship, in terms of the worldview, I was able to understand that it's not just about this knowledge, about how good a doctor you can be and how many maybe endoscopies you can do in a day.

It's about how that impacts someone else in their life. How does it impact the community? How does it impact the country? As much as I was going to do this for my own personal ambition of acquiring this knowledge, this knowledge is now with me and I'm supposed to utilise it for the betterment of other people. And it's not even just my local population, the betterment of the Zambian people and the betterment of the international community.

So, I have that responsibility. I feel I'm more responsible now because I have this knowledge and I had this opportunity. I need to at least allow other people to share what I have learnt. I have to be able to impart knowledge from where I got the knowledge from. I feel like it's really opened my mind to my role as a physician and a doctor and member of the global community.'

As a mid-level physician, Enock regularly provides guidance and counselling to his junior colleagues. At the same time, he actively encourages them to apply for the Commonwealth Scholarships to further their studies.

'I use myself as an example and tell people this is something that is very possible and you just need to put time and effort into applying, making sure you are the right candidate for the right scholarship or the right award. And a lot of the junior colleagues, when they see what I have been able to achieve through the Commonwealth Scholarship, they do get encouraged and they start applying.'

'It's a really amazing Scholarship. It was so seamless from the application process to processing with the school. It was really seamless and I really enjoyed my award. And I actually have been trying to advocate for more of my colleagues to take up the Commonwealth Scholarship.'

Shaping National Strategy on Triple Elimination of Mother-to-Child Transmission of HIV, Syphilis and Hepatitis B

During his training to become a gastroenterologist, Enock was invited to join a technical working group tasked with developing strategies for the Ministry of Health to reduce the rates of hepatitis B, syphilis, and HIV infections among newborns.

The Triple Elimination Initiative, a global effort spearheaded by the WHO, encourages countries to simultaneously commit to eliminating HIV, syphilis, and hepatitis B virus. This initiative directly contributes to Sustainable Development Goal 3 – Good Health and Wellbeing. In Zambia, hepatitis B prevalence is around 6%, which is considered high; consequently, Zambia is a signatory to the declaration to implement the Triple Elimination Initiative, and its Ministry of Health has committed to eradicating hepatitis B by 2030.

Enock contributed his hepatology expertise to the working group, helping to shape the position paper for implementing the national strategy based on WHO guidance. One of the key risks identified in Zambia was mother-to-child transmission. Although hepatitis B is a blood-borne disease and primarily transmitted sexually, in developing countries, it is often passed from parent to child during pregnancy and childbirth. The working group recognised that eliminating this transmission route could significantly reduce the number of new infections.

Enock played an important role in developing the guidelines by providing his expertise on hepatitis B virus, its transmission, epidemiology, and the strategies required to prevent its spread.

On a practical level, implementing the strategy will enhance access to essential tests for couples to ensure they do not transmit infections to their children. One challenge in Zambia is the low rate of antenatal visits. The strategy aims to improve access to antenatal services earlier in pregnancy to enable early screening for infections. Those at risk will be identified in advance, and appropriate treatment will be initiated to minimise transmission risks. The strategy is also expected to improve the provision of vaccinations and prophylactic medication as part of preventative measures.

'... we need Zambian [national guidelines]. It's not advisable to just import everything in terms of the interventions that have been done outside. Of course we can borrow them. But we need to localise them to our setting to make them more feasible and more realistic and more attainable to actually achieve this goal we have of eliminating hepatitis B. So, it calls for more or less trying to localise the WHO guidance.'

However, the success of the initiative will largely depend on the compliance of patients and parents, who need to attend medical appointments for testing, vaccinations, and antenatal care. A major challenge is the stigma associated with infections linked to sexual contact, which has led to significant hesitancy. Nevertheless, it is hoped that the Triple Elimination Strategy will help to improve the situation gradually.

The strategic plan has recently been published. It is available to guide medical professionals in reducing and eventually eliminating hepatitis B, syphilis, and HIV, particularly mother-to-child transmission.

Reflecting on the impact of the Commonwealth Scholarship, Enock identified the most significant changes he has had to his community:

'I was part of the authors of the new strategic plan for the triple elimination of HIV, hepatitis B and syphilis for the Ministry of Health, Zambia, which aims at reducing mother-to-child transmissions of these three infections. The strategic plan aims at providing the framework to help support this effort. It has just been concluded and published and we are hoping it will have a significant impact on EMTCT (elimination of mother-to-child transmission) in the country.'

'I think my biggest contribution was the contribution to this strategic plan. But at a more personal level, I think in terms of guidance, I have tried to get more people interested in the Commonwealth Scholarships. And we've seen a lot of people now applying from Zambia. Of course, not entirely due to myself but due to the combined efforts of the Commonwealth Alumni and community in Zambia.

There are more doctors interested in applying and we're seeing more people getting into public health because of that. We can see more people going into translational medicine because there are good MSc programmes in translational medicine.

I feel like I've contributed in that way. As well as, in terms of, of course, my patients now. I've never practised in the NHS but through my network of people who work in these advanced healthcare systems, I have been able to adopt certain things. The patients, they do realise, and they say that's different. They appreciate the small things as well.'

Developing National Guidelines on Management of Acute Upper GI Bleeding and Acute Liver Failure

Enock also collaborated with the University of Zambia and the University Teaching Hospital on the development of national guidelines for the management of acute upper gastrointestinal (GI) bleeding and acute liver failure. Both conditions are medical emergencies, and the purpose of the guidelines is to provide evidence-based recommendations to help clinicians recognise, manage, and triage patients, as well as guide treatment decisions.

The guidelines were developed based on a comprehensive review of available scientific literature, aiming to provide the best evidence to support clinical decision-making. The national guidelines that Enock contributed to have been recently finalised and published. Once publicised, they will help standardise treatment across medical facilities in Zambia by promoting best practices, ultimately improving patient outcomes.

'The number of gastroenterologists is limited in our country. By providing these guidelines, I think it's a step in the right direction in providing that specialist care that may not be available in the most rural areas. And at least providing that chance for the patient to be resuscitated and be looked after, and long enough for them to either recover or to be referred to the next level of care.'

Working with HEPSANET - Hepatitis B in Africa Collaborative Network

Enock also had opportunities to collaborate with HEPSANET — an international group of researchers spearheading epidemiological research on hepatitis B in Africa. He was introduced to the group by one of his university professors, who had collaborated on several major papers produced by the group.

HEPSANET was formed when researchers identified gaps in hepatitis B research and decided to collaborate to facilitate epidemiological studies of the disease. Their research focuses on two key areas: preventing infection in children and providing antiviral treatment to those who need it. Transmission can be reduced by vaccinating infants, while antiviral treatment is administered to mothers with high levels of the hepatitis B virus. HEPSANET aims to identify strategies for preventing transmission, determining who requires antiviral treatment, when to initiate it, and how to deliver effective treatment programmes.

Through HEPSANET, Enock attended Good Clinical Practice - a certified research training programme in Dar es Salaam, Tanzania, where he gained substantial knowledge on hepatitis B research. As part of the training, he also received a briefing on the group's activities and collaborations.

Although not formally a member of HEPSANET, Enock contributes his expertise in hepatitis B research to the group. As an early-career researcher, he also benefits from the group's support in areas such as statistical analysis, resource mobilisation, and protocol development — all of which align with his goal of advancing gastroenterology and hepatology in Zambia and the wider region.

Furthermore, Enock's involvement with HEPSANET has enabled him to build a valuable network, connecting him with hepatitis B researchers, physicians, molecular scientists, epidemiologists, and clinical nurses from around the world.

Looking Ahead to Enhance Endoscopy Services, Introduce a Liver Transplant Programme and Complete a PhD

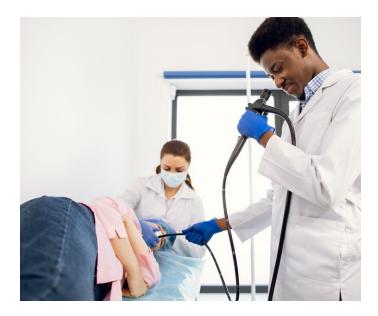
Through HEPSANET, Enock also met a group of experts specialising in endoscopy. This provided him with an opportunity to learn more about the procedure, inspiring him to explore ways of advancing the availability of this service in Zambia.

'For me, [working with HEPSANET] has been quite exciting. And I've also worked with a number of groups related to endoscopy because through my training, I was exposed to endoscopy. And we are trying to see how we can advance endoscopy services in Zambia.'

Endoscopy has been available in Zambia since the 1970s but despite its long history, it has not progressed at the same pace as in resource-rich countries. Endoscopy is a relatively safe, quick, and comfortable non-surgical procedure used to examine the digestive tract. While it is an essential diagnostic and therapeutic tool in modern medicine, its availability in Zambia remains limited and cannot meet the growing demand.

Enock is collaborating with other medical professionals and researchers to identify major bottlenecks and explore ways to improve diagnostic procedures for Zambians. He is passionate about contributing to the newly established Master's of Medicine in Gastroenterology and Internal Medicine programme at the University of Zambia, aiming to enhance training and capacity building in the field, particularly in endoscopy.





'I would really love to contribute to the gastroenterology programme in my country. I think I will be the third graduate of the programme. It's literally that young. We are the only three locally trained gastroenterologists in our country. So, I'm hoping I can contribute to this to increase the number of gastroenterologists in Zambia. Hopefully I will be working in academia. I'm hoping to contribute significantly to the elimination of hepatitis B within the next five years.

I'm hoping we can have home-grown solutions to actually eradicate these diseases as they affect us more than most other people. And I'm hoping this can also translate to the region as well because it's not only Zambia that is hard-hit by hepatitis B and other infections. Even Zimbabwe, Botswana, Namibia, South Africa are more or less fighting the same battles.'

Another significant challenge in Zambia is the absence of a liver transplant programme. Enock's broader ambition for the future includes initiating such a programme in his country.

Organ transplantation, one of modern medicine's major breakthroughs, has been clinically successful in treating end-stage organ failure. Unfortunately, only a few countries in Africa currently offer organ transplants. During his Commonwealth Scholarship studies, Enock had the opportunity to gain exposure to a liver transplant centre, which provided him with valuable knowledge and confidence to potentially introduce a similar initiative in Zambia in the future.

'The main reason why I went for the MSc was the liver transplant programme and I'm hoping, with time, that could also be something that I can work within my career. It's a long-term goal.'

Enock has also been active in the revitalisation of the Zambian Association of Gastroenterology and Nutrition (ZAGAN), with continental and international conferences being planned for the upcoming years.

The association is not limited to gastroenterologists and hepatologists but is open to all professionals with an interest in gastroenterology and hepatology research. As a result, it has attracted a diverse range of specialists, including scientists, nurses, physician-scientists, general physicians, obstetricians, pathologists, and others.

'We have very few gastroenterologists or people involved in gastroenterology research. And the association has grown with the introduction of a Gastroenterology Master's programme in Zambia.

We have more people interested in gastroenterology and more people engaging in gastroenterology research, which resulted in the association becoming bigger than it used to be. Based on some of the meetings we've had, we aspire to hold continental meetings in the coming years.'

Enock has been working closely with the president of the association, who is also one of his former college professors, to organise and host ZAGAN's first national conference in 2025, followed by its first international conference in 2026.

On a personal level, Enock wants to further his education by completing a PhD.

'I had an opportunity to be interviewed for a PhD position in Germany and although I didn't get the PhD at the end, I was guite excited.

[Because of receiving Commonwealth Scholarship], I still have that positive feeling towards opportunities which can be provided and I am no longer limited to my environment of Zambia or sub-Saharan Africa. I try to look outwards to see what opportunities are out there and what those opportunities can bring back to my country when I do come back.'

More about Enock Syabbalo:

Find out more about Hepatitis B in Africa Collaborative Network - HEPSANET by visiting the website:

https://www.hepsanet.org/

WHO Triple Elimination Strategy
Elimination of mother-to-child transmission of HIV, syphilis and hepatitis B

University of Zambia

Master of Medicine in Gastroent

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World Journal of Gastroenterology
Gastroenterology training in a resource-limited setting:
Zambia, Southern Africa

National Library of Medicine

The unmet need of organ transplantation in Africa

