

Developing eye health services in Malawi: a personal reflection

BY CHINSISI NAMATE, COVADONGA BASCARAN AND MARCIA ZONDERVAN

Dr Chinsisi Namate reflects on her first two years as a consultant ophthalmologist at the eye unit at Zomba Central Hospital, and how she has already successfully expanded eyecare services for southeast Malawi.

The Lions Sight First Eye Hospital in Zomba was built in 2009 at Zomba Central Hospital (ZCH) through a grant obtained by Lions Aid Norway. Zomba is the former capital city of Malawi. The hospital serves the southeastern part of Malawi, which includes about a quarter of the 20 million population of the country.

The eye hospital has three consultation rooms, a refraction room, two offices, a conference room and an optical shop in one section. The adjoining sections comprise two male and two female wards and one children's ward. Together these can accommodate 32 inpatients. The wards extend into an operating section which comprises two operating theatres, a recovery room, nurses' station, changing rooms and a waiting area. When the unit opened it was equipped with basic equipment such as slit-lamps for the consultation rooms, a set of trial lenses for the refraction room, a microscope for the operating theatre and surgical sets. The optical shop was not operational.

Since the unit opened, the main problem has been attracting and retaining a consultant ophthalmologist. Most of the time the unit has been led by a senior ophthalmic clinical officer (OCO) with a team of two cataract surgeons, two further OCOs, five optometrists and nine nurses. The almost constant absence of an ophthalmologist created a leadership gap; donors were reluctant to support the unit. However, the unit was fortunate to have financial support from the Malawi Relief Fund (MRF) [1] who sponsored cataract camps in the southeast region of Malawi and provided the necessary topical medication and consumables needed for the daily operations of the unit.

I moved to ZCH in January 2022. The slit-lamps were in poor condition; the trial lenses had missing lens powers. The hospital had procured lenses and frames so glasses could be sold to patients, but



Figure 1: Eye examination at the Lions Sight First Eye Hospital in Zomba.

there was no working lens cutter in the department. There was no tonometer and the probes for Goldmann applanation had been scratched to such an extent that the mires were not visible. The surgical sets were incomplete. The microscopes were in poor condition, which made operating a great challenge. The unit needed a huge upgrade and it was going to be a long, challenging journey.

The unit was fortunate in that my presence seemed to encourage donors and partners. In February 2022, OneSight EssilorLuxottica Foundation [2] came to ZCH to assist us in setting up the optical shop. The project included equipping the refraction room with a slit-lamp and tonometer, renovating the consultation rooms, offices and conference rooms and setting up the optical shop. The optical shop was opened in February 2023. Patients are now able to access glasses for between US\$1.20 and US\$26.50.

In June 2022, Sight Savers International [3] also came to the hospital and we developed a partnership to conduct adult and paediatric surgeries in the southeast zone of Malawi. This was a two-year project starting July 2022. The project included procurement of new cataract surgical sets, a portable microscope, an iCare tonometer, an autorefractor, and topical medication and consumables for surgical outreach.

This was a huge boost to the unit and things were starting to take shape.

I met the local and international directors of MRF to involve them in the wider activities of the eye unit besides cataract surgery. This included my special interest in glaucoma, which was at the top of my list. We had a fruitful meeting and from then on MRF has expanded its support through provision of eyedrops for glaucoma, provision of the anti-metabolite mitomycin C, which enables me to perform trabeculectomies, and Avastin for treatment of diabetic retinopathy (DR).

Malawi Relief Fund also sponsored much-needed refresher courses for clinicians and nurses at the eye unit at ZCH and for staff in the eye units in the district hospitals in the southeast zone. The Fund expanded their support to local research in the unit and logistical support for staff to attend international conferences, such as the annual COECSA Congress [4], and eyecare training for OCOs in South Africa.

With the assistance of the Tjssen Foundation, I was trained under Dr Bollemeijer from the Netherlands to perfect my trabeculectomies. The support also included complete glaucoma sets for the unit. With the mitomycin C brought in by MRF, the eye unit was ready to start providing glaucoma surgery.

The year 2022 was a great year for the unit and we were all excited about what 2023 had to offer. Unfortunately, in February 2023 the country experienced Cyclone Freddy, which brought heavy winds and rain and caused widespread flooding in Malawi. At the unit there had already been a longstanding issue of roof leakages, but the cyclone weakened the roof much further, to the extent that the roof would not survive the heavy rains of the rainy season that start each November.

To make matters worse, ZCH did not have enough funding to enable the repair and renovation of the roof. It seemed like all hope was lost. But in early March 2023,



Figure 2: The optical shop at the Lions Sight First Eye Hospital in Zomba.

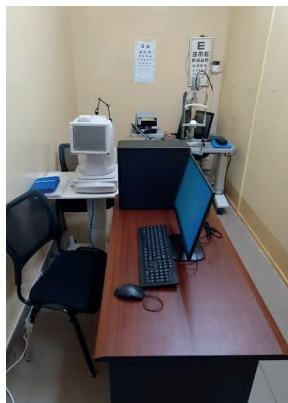


Figure 3: OCT and green laser machine installed at the Lions Sight First Eye Hospital in Zomba.

I learned that the Lions Clubs International Foundation (LCIF) [5] was willing to receive Sight First proposals from the local club which I had joined six months before. We started working on the proposal and saw it as an opportunity to expand the DR care at ZCH that had also been lacking for many years.

The LCIF regulations only allow them to give 50% of the funds for high-tech equipment, so we had to find a partner. Through the assistance of the DR-NET Programme at the London School of Hygiene & Tropical Medicine (LSHTM) [6] we were connected to The Gavins Foundation who kindly agreed to provide 50% of the funds for the equipment in our LCIF proposal if it was successful.

With this new partnership in place we were able to apply to LCIF and in August 2023 we were thrilled to find out that we were successful. We were awarded the total amount of US\$293,325 for the refurbishment and equipping of the eye unit, made up of \$219,325 from LCIF, \$49,000 from The Gavins Foundation, and \$34,000 from MRF. The grant enabled the renovation of the theatre and wards, which included the replacement of the roof and installation of back-up power. It included the purchase of high-tech equipment including an optical coherence tomography (OCT) machine, green laser and portable retinal camera.

The grant also allowed us to purchase new slit-lamps for each consultation room, with an accompanying 90D lens. It included surgeons' chairs, cautery machines, a washing machine, a dryer, surgical drums, a lens cutter and groover, and materials for low vision assessment. The renovations were completed in December 2023 and all the equipment was in by the end of January 2024.

However, equipment and a new face to a new unit was just part of the story. Veta Bailey Charitable Trust, through the VISION 2020 LINKS DR-NET, supported DR image grading training for some of our clinicians on the International Certificate course run

by the Gloucestershire Retinal Education Group [7]. This training commenced in September 2023 and will be completed in August 2024. This training has really shaped and improved the way the clinicians handle DR.

Having adequate equipment for screening and treatment will assist us all in providing quality care for the people of the southeast zone. We plan to merge the medical and eye diabetic clinic so that we can screen as many patients as possible for DR. Our patients will no longer have to travel more than 60km to access retinal imaging and treatment, as this will now be provided at ZCH. The Avastin being provided by MRF completed the package.

So, what now? Having a fully functional unit is not just about having good infrastructure and equipment. The unit must provide good-quality care. We hope to find more training opportunities for all levels of staff including nurses, clinicians, optometrists and our support staff.

We are committed to continuing to expand and improve all our services. In terms of the DR service, we hope to train the remaining clinicians and optometrists so that we have more than two people who can provide good-quality screening and diagnosis of DR. We need some 60D lenses for examination. We also hope to have a constant supply of Avastin, as we are seeing more cases in need of that treatment.

In terms of cataract care, we still need to acquire a B-scan and YAG laser, as we are seeing an increase in the number of posterior capsule opacities. Our patients must travel to Blantyre (>60km) for YAG laser, which should not be the case. There is a need to strengthen our glaucoma care with the acquisition of a visual field machine, a 78D lens and a cyclophotocoagulation machine. In terms of our refractive services, we need to acquire more retinoscopes as we now have more trial lenses through MRF and OneSight, but each needs a good retinoscope.

It has been a great journey heading the eye unit at ZCH and much has been achieved in my two years there. But there is still so much to do. Our vision is to become a centre of excellence and I know with the help of my staff and our partners, we will achieve this together.

Acknowledgement

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References

1. Malawi Relief Fund. <https://malawirelief.org>
2. One Sight EssilorLuxottica. <https://onesight.essilorluxottica.com>
3. Sightsavers. <https://www.sightsavers.org>
4. COECSA Annual Congress. <https://coeccsacongress.org>
5. Lions Clubs International Foundation. <https://www.lionsclubs.org/en>
6. DR-NET. <https://www.dr-network.org>
7. Gloucestershire Retinal Education Group (<https://www.gregcourses.com>)

[All links last accessed April 2024]

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