

**DANIEL MAROKO MOCHERE**

**REPORT ON LOW VISION REHABILITATION AND CONTACT LENS FITTING  
FELLOWSHIP TRAINING AT KELLOGG EYE CENTER UNIVERSITY OF  
MICHIGAN IN THE DEPARTMENT OF INTERNATIONAL  
OPHTHALMOLOGY.**

**ON 01<sup>ST</sup> MAY – 14<sup>TH</sup> JUNE 2019.**

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# **ACRONYMS AND ABBREVIATIONS**

**KEH** – Kisii Eye Hospital

**DOS** – Division of Ophthalmic Services

**KEC** – Kellog Eye Center

**LV** – Low Vision

**CL** – Contact Lens

**SW** – South Western

**M** – Michigan

## **ACKNOWLEDGEMENT**

I sincerely take this opportunity to thank the following who made the program a success:

- The University of Michigan fraternity, the department of international Ophthalmology for their massive support in catering for my tuition fee, accommodation and food expenses among other benefits I enjoyed during the training.
- The World Council of Optometry for the fellowship grant that was to cater for my travel and Visa processing expenses.
- Dr. Sherry Day for being the lead person in the whole program. Her family also extended their social support during my stay in Michigan.
- Dr. Dan Kiage the Medical Director KEH and entire staff for the massive support.
- Donna Donato Administrator KEC who ensured that everything went as it was planned.
- Dr. Josh Glaucoma Specialist at KEC.
- My family especially my Spouse who let me to be away from them for the period I was away for the training.

# **INTRODUCTION**

From 1<sup>st</sup> May through 14<sup>th</sup> Friday June 2019 I Daniel Maroko Mochere practicing optometrist in Kisii Eye Hospital from April 2013 to date. KEH is a private eye hospital operating as Social enterprise offering eye care in the South Western region of Kenya. It serves four counties with approximately 5.4 million people. Despite the fact that the region has public hospitals with eye units, such units are not able to offer comprehensive eye exams due to lack of equipment and trained personnel. Our hospital has been lacking the capacity to offer LV services because we had no trained personnel to offer such service. The training opportunity arose when Dr. Sherry Day from University of Michigan visited our facility and gave insight of the fellowship training available to reduce the burden of those who travel over long distances to get the LV services.

# **BACKGROUND INFORMATION**

The number of blind people in Kenya has increased even as the government decries the low number of eye specialists.

Currently, an estimated 250,000 people are blind while another 850,000 are visually impaired.

Some of the leading causes of chronic blindness include cataract, glaucoma, age-related degeneration, diabetes, trachoma, and eye conditions in children (for instance caused by vitamin A deficiency).

Health experts say age-related blindness is increasing throughout the world, as is blindness due to uncontrolled diabetes but little investment is being made to address this. In Kenya for

instance, there are only 130 trained ophthalmologists (eye specialists), 70 OCSs and 343 optometrists against a population of more than 48 million. Among these personnel we have less than 20 low vision specialists

The experts also noted that despite progress being made in reducing the number of eyesight related problems through surgical techniques, cataract (affecting 47.9 per cent of population) remains the leading cause of visual impairment in all areas of the world, except for developed countries.

Although 75 per cent of the diseases causing visual impairment are avoidable through cost-effective interventions, some require corrective surgeries such as corneal transplants, which can be done locally.

In Kenya we have 5 eye centers offering low vision service whereby 2 are located in or near the capital city, one on the coastal region, one in the Rift Valley region and one in North Western Kenya. This makes people in areas around our eye center to travel long distances to go and get LV and Specialty CL services. In that regard through the training, our surrounding population will be relieved financially and time taken when seeking such services. Apart from getting our patient from daily walk into the facility, we also do community outreach program which will enable us to reach those who are unreachable by identifying them at the outreach and advise them on the available services at the hospital that they can benefit from.

The specialty contact lenses like scleral and aphackic CL will reduce the number of patients who require cornea transplants otherwise saving them the expense of having the transplants procedures.

# **OBJECTIVE OF THE TRAINING**

The main objective of the fellowship training was to equip Daniel M. Mochere with the necessary LV and CL skills in order to start a unit to reduce the burden on people from SW of Kenya travelling over long distances to seek the services in facilities where the service is available.

Most contact lenses are given in various optical shops but they mostly give soft contact lenses. Specialty contact lenses are only given in few clinics within the city.

These services now will be closer to the people within SW Kenya.

# **ACHIEVEMENT OF THE TRAINING**

Over the course of the 7 weeks, I was able to get skills on LV rehabilitation and CL fitting skills.

# **SPECIFIC TRAINING DETAILS**

I started my program on 29<sup>th</sup> April 2019 and it ended 14<sup>th</sup> June 2019. During the training I was taken through the following areas.

- Patient privacy and ethical practice in the Michigan Health Systems.
- Basic theory on general and specific cases refraction.
- Basic theory on low vision and contact lenses fitting.

- Contact lenses prescriptions and oh how to decide which case to give specific ocular dystrophies. Under this I covered
  - ✓ Soft contact lenses
  - ✓ Scleral contact lenses
  - ✓ Aphakik lenses for pediatric patients
  - ✓ Hard contact lenses RGP.
  
- Evaluation of low vision patients testing various visual aids that will be suitable for them.
- Patients' records management and other referral systems.

The program came to an end on 14<sup>TH</sup> JUNE 2019 with a case study presentation and a graduation.

During the training I interacted with other low vision specialist, occupational mobility specialists, and low vision support groups of who gave donations of LV devices that will help to start up the unit.

## **DIRECT MEDICAL BENEFIT FROM THE TRAINING**

Kisii Eye Hospital now has a trained LV rehabilitation and CL fitting specialist.

## **DEPARTMENT OF TRAINING AND LIST OF TRAINERS**

University of Michigan Department of Ophthalmology and Visual Sciences Contact Lens and Low Vision Services Ann Arbor, Michigan USA

### **Clinical Faculty**

- Sherry Day, OD, FAAO
- Karen DeLoss, OD, FAAO
- Carlton Foster, OD
- Paul Grenier, OD
- Amy Lagina, OD, FAAO
- Helios Leung, PhD, OD, FAAO,
- Michael Lipson, OD, FAAO
- Donna Wicker, OD, FAAO

### **OTHER FACILITATORS**

- Donna Donato, Administrator M Kellog Eye Center
- Josh Enrich Glaucoma Specialist M Kellog Eye Center



# SPONSORS

- University of Michigan – Tuition Fee, Accommodation, Food and other expenses during the training
- World Council of Optometry – Ticket and travel expenses and Visa Processing Expenses

# RECOMMENDATIONS

- Establishing of a LV and CL fitting unit at KEH. Through the Medical Director Dr. Dan Kiage, Already plans are underway to ensure the unit is in operation very soon.
- Establishing a data collection tool to get all required data for monitoring and evaluation
- Establish procurement strategy for low vision devices and contact lenses.
- Establish referral mechanisms of LV and specialty contact lens patients from surrounding eye clinics/centers with no such unit.
- Dr Sherry Day to be making continuous follow up to ensure even difficulty cases can be adequately handled. It's advisable to have her first visit within the first 6 months to evaluate what is taking place and give more recommendations and other important insights.





*University of Michigan Health System*

*Certifies that*

**DANIEL MOCHERE**

*has successfully completed the*

*Low Vision Rehabilitation and Contact Lens Fitting Courses*

*in the*

*Department of Ophthalmology and Visual Sciences*

*May 1, 2019 through June 13, 2019*



*Sherry Day*  
SHERRY DAY, OD, FFAO

*Helios Leung*  
HELIOS LEUNG, OD, PhD