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Clinical low vision training of optometrists

**Part of a three-year pilot in developing low vision services in selected regions
in northern Tanzania**

**Report from training
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Introduction

A three-year pilot project for developing low vision services for northern Tanzania was started by KCCO (Kilimanjaro Centre for Community Ophthalmology) in 2006 with funding from Dark and Light Blind Care. Emphasis lies on including low vision into existing regional and district eye care services. Children will form the main focus of the work; therefore education services are also targeted in training and provision of services. National ministries of Health and of Education are informed of each step of the programme, while the regional and district eye care and education authorities are being actively involved.

Training of eye care and education staff

Seven optometrists, one from each region, and an additional optometrist from KCMC, a large tertiary hospital with a running low vision clinic, were trained in basic clinical low vision for five days in October 2006. Training was organized by Ms. Karin van Dijk with assistance by Dr. Naomi Nsubuga (ICEE), Ms. Hanifa Joshua (KCMC), Mr. Gasper Mmari (KCMC School of Optometry), and Ms. Elizabeth Kishiki (KCCO). Regional Eye Coordinators were already trained by KCCO and KCMC in June on clinical follow up of children receiving cataract surgery and on the need for starting low vision services.

Children in resource centres attached to mainstream schools (Annexes) or schools for the blind are the first priority as they are already in schools and can be reached easily. In addition surveys have shown that many of these children are low vision, not blind. Many either have had no eye check or the interventions advised, such as surgery or glasses have not been implemented. We anticipate that these optometrists in collaboration with the REC at their centres will work closely with these children with low vision.

The content of the training started from the existing skills of the optometrists.

From work with low vision clients at KCMC (the tertiary referral hospital for Northern Tanzania) it was evident that refraction needed to be emphasized as the first intervention for children with low vision after surgery. Skills in retinoscopy and subjective refraction relating to children were therefore revised and practiced on children with low vision during the training.

The benefit of non-optical measures, such as use of a closer working distance, and of window light was taught subsequently. Lastly, magnification, i.e. use of microscopic glasses (up to 20.0 Dioptres) and low to medium power non-illuminated hand magnifiers was added. This simple selection was made to ensure that the eye care staff trained can not only start to prescribe basic magnification correctly, but that they also can organize access to the devices prescribed. Prescription of e.g. high power illuminated devices and telescopes was not taught as costs, skills needed, accessibility and availability are concerns at this time. Alternative strategies to ensure a child learns what is written on the blackboard or has access to texts too small to read were taught instead.

In each region spherical corrections up to 5 to 6 Dioptres are locally available. For children needing different prescriptions and/or microscopic glasses > 6 Dioptres, orders can be made (as a short term measure through KCCO) which aims to ensure short waiting periods and affordable costs.

Eye care in each of these regions also has some kind of subsidy system for poor patients. All low vision interventions will be open to these subsidies. During the training the importance of ensuring children actually get their prescriptions was emphasized, as experience has taught that the obtaining of corrections and/ or low vision interventions can be a bigger problem than organizing the clinical low vision assessment itself!

A 1-day training of teachers from selected annexes and Itinerant teaching programme is now taking place (November 2006). Emphasis will be put on ensuring the children get their distance glasses, obtain and use the optical and non-optical devices advised by the eye care providers, and on teaching print.

The role of eye care as the initiators of low vision assessment of children and as the main people responsible for organizing glasses, devices and follow-up, was emphasized. Currently schools are either not aware of the need for an eye check and low vision care or are hesitant to cooperate as they sometimes fear children will leave the school after their vision has improved to enable print use. Education staff and family members will be taught the importance of vision / print use and follow-up to eye care.

Strategies to ensure most children with low vision in the future can go their local schools are being developed and will be implemented for children newly entering education. It is hoped that the lessons learned from this pilot project will assist the adoption or expansion of low vision services elsewhere in eastern Africa.

- Appendix 1: List of participants + regions + hospitals
- Appendix 2: Objectives of the course
- Appendix 3: The suggested content for a day training for education staff

Appendix 1 :List of participants + regions + hospitals

Name	Region	Station
Beatrice Mkiramwene	Kilimanjaro	Mawenzi Regional Hospital
Mr. Ereneo Kalisa	Mwanza	Mwanza Regional hospital
Upendo Shangali.	Arusha	St.Elizabeth Hospital
Emmmanuel Santuri	Manyara	Haydom Lutheran Hospital
Happiness Magoma	Mara	Musoma Regional Hospital
Mr. Sospeter W. Ntoke	Shinyanga	Shinyanga Regional Hospital
Dismas Kimvule	Singida	Singida Regional Hospital
Alex M.Lissu	Kilimanjaro	KCMC
Gasper Mmari	Kilimanjaro	KCMC School of Optometry
Hanifa Joshua	Kilimanjaro	KCMC
Elizabeth Kishiki	Kilimanjaro	KCCO
Naomi Nsubuga	Uganda	ICEE-Africa (East Africa)
Marianne Kooij	Arusha	Patandi Teachers Training College
Karin van Dijk		

Appendix 2: Objectives of the training:

At the end of the training the participants will be able to:

General

- Illustrate what low vision is
- Describe the role of Ophthalmic staff and other professionals in a low vision service, including close cooperation with education staff in Annexes and special schools
- Illustrate how to promote the early identification of children with low vision in the community
- Record results of low vision work, using appropriate forms
- Adopt a system of referral for low vision services

Eye Diseases and Disorders

- Describe what different people with low vision have difficulty in seeing and the resulting daily problems
- Discuss the Low Vision management of different eye diseases
- Discuss the role of KCMC School of Optometry in low vision training
- Discuss type of patients presenting to KCMC Low Vision Service

Low Vision assessment and interventions

- Take a Low Vision History Correctly
- Perform a basic clinical low vision assessment, using a variety of testing methods
- Practice refraction (retinoscopy & subjective) of a person with low vision
- List uses, advantages and disadvantages of different types of near optical devices available, with emphasis on local devices
- Discuss the importance of contrast and lighting for people with low vision
- Explain the basic optics of the magnifying devices and its practical implications
- Start prescribing the appropriate magnifying glasses and hand magnifiers, to a low vision child/ adult
- Advise on non-optical devices
- Organise a system to ensure that each child obtains the glasses and devices prescribed, with emphasis on payment by parents and use of local subsidies

Appendix 3: Suggested content for 1 day training in low vision for education staff

1. Low vision: what it is / importance of use of vision

- What is low vision / what is blind – no definitions, just the fact that a child see something = low vision
- Every child, blind and low vision, need an eye check
 - Every child with a bit of vision needs refraction (= check for glasses and/or magnification) etc after the eye check
 - Role of optometrist trained; how to make contacts etc.
- Advantages / disadvantages of print versus Braille
- Use of vision / use of print for most children with low vision
 - Almost all children have stable vision!
 - Only when vision is almost completely lost should Braille be started; very difficult to teach print and braille
- Myth and facts:
 - E.g. child does need to learn Braille in case vision will decrease = MYTH!!!
 - See handout clinical training

2. Interventions prescribed by eye care / optometrist

- Surgery: referral to KCMC etc
- Importance of use of distance glasses
- Use of magnifying devices + non-optical devices: based on advice form filled in by optometrists
- Seating position in class, use of light, how to help LV child with blackboard use, use of cap / umbrella, long sleeves etc for children with albinism
- Explanation of advice to teacher/parent forms, that the optometrist is expected to give to the school after the clinical low vision assessment.

3. Role of teachers

- Role and importance of special teachers to teach print skills and assist with use of devices
- Role and importance of classroom teachers in allowing child to sit in appropriate place, speaking when they write on blackboard, assistance of peers, encouraging use of distance corrections, stand, typoscope and near devices.
- Need for regular follow-up to eye care

4. Summary

- Use of filled in advice to teacher/parent forms (case studies): ask the teachers to explain what it means for the education of the child: what does the child now need!

Informal:

- Organise how each child will get the distance glasses, the magnifying devices, the stand or cap or sunglasses (non-opticals)