Report on a workshop on

Human Resource Development for VISION 2020 in Tanzania

At The Royal Palm Hotel

Dar es Salaam

Sponsored by IAPB in association with the LSHTM

April 14th – 15th 2005

Introduction:

A workshop on human resources development (HRD) for VISION 2020 in Tanzania was held at the Royal Palm Hotel, Dar es Salaam from 15 – 16 April 2005.

Participating in the workshop were representatives from the Ministry of Health, ophthalmologists, representatives from institutions involved in research and the training of various cadres of eye care workers, medical directors of eye units, regional eye coordinators, representatives from NGDOs involved in blindness prevention, as well as observers from Ethiopia, Malawi and Zambia (see list of participants). Professor Adenike Abiose (International Agency for the Prevention of Blindness, IAPB), Dr Hannah Faal (IAPB), Dr Paul Courtright (Kilimanjaro Centre for Community Ophthalmology, KCCO) and Dr Amir Bedri (CBM) facilitated the workshop.

The aim of the meeting was:

- To review the current status of human resources in eye care in Tanzania and identify gaps existing in order to achieve 2020 targets.
- To propose strategies that can be implemented and action plans for strengthening human resource for eye care in Tanzania in order to achieve VISION 2020 targets
- To provide a forum for information exchange related to HRD for eye care with other countries in Africa.

By the end of the workshop, it was expected that a five-year action plan for eye care human resources development would be drafted.

Current human resources situation for eye care workers:

According to data from 2004, Tanzania had 25 ophthalmologists, 29 cataract surgeons, 52 optometrists and 179 ophthalmic nurses (Table 1 below). This table shows the following:

- A shortage of ophthalmologists,
- Uneven distribution of ophthalmologists in the regions, with Dar es Salaam alone having more than half the total number of ophthalmologists,
- A reasonable number of eye surgery teams (totalling 54) in the country,
- Generally low productivity per team, averaging 203 cataract surgeries per team per year (2002 data).

At the meeting, it was also observed that:

- Many of the mid-level eye care workers (cataract surgeons and ophthalmic nurses) are usually assigned to duties unrelated to eye care or blindness prevention,
- There are a high number (about 50) of unemployed optometrists who need to be integrated into the health care system.

Training Institutions:

1. ***Ophthalmologists:***

Kilimanjaro Christian Medical Centre Moshi (KCMC) and Muhimbili University College of Health Sciences Dar es Salaam (MUCHS), the two training institutions for ophthalmologists currently have a combined output averaging 2 – 3 ophthalmologists per year.

After reviewing the curriculum and challenges faced by both institutions, the following recommendations were made:

a. Collaboration between training institutions (in Tanzania and within the region) should be encouraged, so as to share resources and know-how. Resources would need to be dedicated for such activities.
b. Training institutions need good infrastructure, high volume of patients and well-trained (sub-specialised) staff to train properly.
c. There should be a competitive selection of candidates for ophthalmology residency. However, the choice is made difficult when there are few candidates.
d. There is a need for Senior Registrar positions for newly-trained ophthalmologists with an option of sub-specialty training before they are posted to work as Consultants in regional hospitals or other project hospitals.
e. Some existing ophthalmologists in the regions should be trained to newer technologies (ECCE etc.).
f. To avoid the need for sponsors to the residency programmes, posts could be created for junior doctors in the eye departments of training institutions. However, this might imply finding sponsors for the salaries of the doctors so recruited.
g. To increase the number of applicants for the residency programmes, efforts should be made to make ophthalmology interesting to medical students. One option would be to include ophthalmology in the rotations for interns. Increasing teaching space and staff numbers could attract students.
h. Where absent, non-traditional skills (management, advocacy, leadership skills etc.) should be included in the curriculum, and the training of teams and the collaboration of existing teams enhanced.
i. The training institutions should share the responsibility for the training and supportive supervision of AMO'Os in the regions.
j. Stereopsis and surgical skills should be tested before admitting candidates into residency programmes.

2. ***AMO'O:***

The training of cataract surgeons is currently done by KCMC, with a yearly intake of 2-3.

It was felt that:

a. More lecturers and cataract surgery trainers are needed,
b. Follow up supervision of AMO'Os after training is needed,

c. Stereopsis and surgical skills should be tested before admitting candidates into training programmes
d. The option of training some AMO'Os with poor surgical skills as medical AMO'Os should be considered.
e. The training of community AMO'Os should be initiated
f. At least one additional tertiary hospital should be involved in the training of AMO'O/Cataract surgeons.
g. Selection of AMO'Os for training should be based on programme needs and all AMO'Os should be placed in a functioning VISION 2020 programme area.

3. *Ophthalmic Nurses:*

Ophthalmic nurses are currently trained at KCMC. Regarding this training programme, it was felt that:

a. The 2-year diploma is long and expensive, thereby limiting the number of workers applying,
b. Many applicants join the course as a means of a career change into administration,
c. Space, equipment and manpower are needed for the course,
d. Clinical skills of trainees need to be improved by increasing the length of clinical exposure.

4. *Optometrists:*

Optometrists are currently being trained at KCMC. The following observations were made regarding their training and deployment:

a. There is a high number of unemployed optometrists that should be recruited and deployed in areas of need
b. The clinical skills of optometrists (like funduscopy, slit-lamp examination, low-vision etc.) need to be improved
c. A short course for refractionists, who will be deployed at district level where optometrists are not needed should be considered
d. A multiple-entry/multiple exit system, leading to a BSc. in optometry should be considered as is currently practised in Pakistan and South Africa
e. Optometrists need to be adequately equipped
f. They need to be integrated in the eye team
g. A community optometry course for optometrists should be started.

5. *Ophthalmic Assistants*

Gap: This cadre of eye care workers is not recognised in the current scheme of service.

Final Recommendations

1. A national executive committee for the prevention of blindness comprising 7 – 8 people, and involving the major stakeholders is needed. It will be the duty of this committee to make sure the action plan is implemented.

2. HRD is very complicated; a lot of economic and political considerations need to be taken into consideration.

3. Tanzania is very fortunate. Few sub-Saharan countries have the quantity and spread of manpower available here (particularly mid-level manpower). Also, Tanzania has very supportive partners, willing and open to support the eye care needs in the country. Hence, for now, increasing the productivity of existing resources/manpower is the best way to improve human resources and service delivery.

4. Setting up of East African College of Ophthalmology: Tanzania has a lot of potential in spearheading its realisation and could be a focal point for collaboration between training institutions, starting with its own training institutions (MUCHS and KCMC). A group should be formed (with training institution) to meet about 2 times a year to discuss issues pertaining to collaboration, standardisation of curricula, having joint courses and possibly a central examination board for each cadre of eye care workers.

5. Each training institution should adopt a geographic area to work in for training and post-training supportive supervision.

6. The training of all cadres of eye care workers should be driven by programme needs, should be well coordinated, and should be planned carefully.

7. Teams ought to be built and trained instead of individuals.

8. Short customised courses (e.g. for planning and monitoring, advocacy, social marketing, management, teaching skills, supportive supervision) are needed, and there are faculty and institutions to run the courses in Tanzania.

9. Each surgical team should endeavour to increase its productivity to at least 800 cataract operations per year by 2010 (working smarter not harder).

10. A team approach to coverage and service delivery should be adopted as an important principle for the success of VISION 2020 in Tanzania

11. Lessons from successful regions should be adopted as soon as possible.

12. The country should be mapped and zones prioritised in terms of need. With this in mind, it might be necessary to start with the southern zone.

13. Fees for cataract surgery should be standardised within regions, so as not to confuse patients.

14. A yearly review for all administrative levels (zones, regions, districts) is needed to plan for the next year.

This workshop was sponsored by IAPB with the LSHTM/ICEH.
The workshop was co-organised by the MoH/ NECP and KCCO.
HKI assisted with logistic arrangements in Dar es Salaam

Table 1. Human resources situation for eye care workers in Tanzania as of 2004.

Region	Population (millions)	Ophthalmologists	Ophthalmic Nurses	Cataract Surgeons	Optometrists	Cataract surgeries 2002	CSR 2002	Teams 2002	[1]Output/team
Eastern									
Mtwara	1.2	0	3	1	1	256	213	1	227
Lindi	0.8	0	4	0	1	27	34	0	0
Pwani	0.9	0	5	0	2		0	0	0
DSM	2.5	14	25	4	8	2372	949	18	259
Dodoma	1.7	0	11	4	3	1230	724	3	410
Morogoro	1.8	1	11	1	1	317	176	2	159
Lake									
Mara	1.4	0	8	0 (1[3])	3	196	140	0	0
Mwanza	3	1	14	1	3	1259	420	3	927
Kagera	2	0	10	3	2	523	262	3	51
Shinyanga	2.8	1	4	2 (1[3])	2	889	318	3	296
Kigoma	1.7	0	4	1 (1[3])	1	27	16	1	0
Northern									
Tabora	1.7	0 (1[3])	5	1	1	345	203	1	44
Singida	1.1	0	5	1	2	236	215	1	236
Tanga	1.6	0	9	1 (1[3])	2	325	203	1	118
Kilimanjaro	1.4	4	22	0	7	1016	726	5	354
Arusha	1.3	1	6	0 (1[3])	3	690	531	1	287
Manyara	1	1	2	0	0		0	1	0
Southern									
Rukwa	1.1	0	3	0	1	100	91	0	
Mbeya	2.1	1	8	1	3	377	180	2	189
Iringa	1.5	0	9	6	4	629	419	6	105
Ruvuma	1.1	1	11	1	2	132	120	2	66
[2]Totals:	***33.7***	***25***	***179***	***29***	***52***	***10946***		***54***	***203***
Zanzibar	1	1	?	3	2	230	230	4	58

[1] Calculated for 2002. Some teams provided surgery in other regions; figures reflect team
[2] For main land Tanzania
[3] Currently in training

Table 2. Human resource needs to meet 2010 target of increasing productivity per team to at least 800 cataracts per year.

		HKI					**OR BIS**							**SSI**							**SSI**
ZONE	**Northern Zone**						**Lake Zone**					**Southern Zone**				**Eastern Zone**					
	Tabora	**Singida**	**Tanga**	**Manyara**	**Kilimanjaro**	**Arusha**	**Mara**	**Mwanza**	**Kagera**	**Shinyanga**	**Kigoma**	**Rukwa**	**Mbeya**	**Iringa**	**Ruvuma**	**Mtwara**	**Lindi**	**Pwani**	**Dar es Salaam**	**Dodoma**	**Morogoro**
Programme Manager	x			x		x	x	x	x	x	x	x	x		x	x	x	x		x	x
AMO-O (cataract surgeon)		x		x					x			x	x		x		x				x
Community Ophthalmology Course	x	x	x	x		x	x	x	x	x	x	x	x		x	x	x	x		x	x
IOL Conversion/team	x		x										x		x						
DRS Training	x			x		x	x	x	x	x	x	x	x	x	x	x	x	x			x
Ophthalmic Theatre Nursing	x	x	x				x			x	x	x	x	x	x	x	x	x			x
Counselling	x			x		x	x	x	x	x	x	x	x	x	x	x	x	x		x	x
Low Vision support	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x
Subspecialty in Paed. Ophthalmology					x																
One New Training Centres for AMO'O needed	x																				
Advocacy	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Equipment Technician					x			x					x						x		

Table 3. List of Participants

LIST OF PARTICIPANTS

	Name	Title / Department	Organization	Address	E-mail	Telephone
1	Mr. Joseph Banzi	KCCO (Community Ophthalmology)	KCCO	P.O. Box 2254 Moshi	jobanzi@kcco.net	(255) 27 2753547
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4	Mrs Miriam Kinyau	Ophthalmic nurse, Singida Regional Hospital	MoH	P.O. Box Singida		0744 776698
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18	Dr Mark Wood	CCBRT Hospital	Other Institutions	P.O. Box 23310 DSM	markwood@cats-net.com	022- 2600070
19	Dr Anthony Hall	Tumaini University (Mmed Ophthalmology)	Training Institutions	P.O. Box 3010, KCMC Moshi	abhall@kcmc.ac.tz	(255) 27 2754890
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21	Dr Paul Courtright	KCCO (Community Ophthalmology)	Moshi	P.O. Box 2254, Moshi	pcourtright@kcco.net	(255) 27 2753547
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Appendix :

The United Republic of Tanzania has a population of about 36 million is divided administratively into 21 regions and 119 districts.

Eye diseases are a leading cause of morbidity, with an estimated 350,000 blind people. The main causes of blindness are cataract (50%), corneal scars (20%) and glaucoma (10%).