

COMMENTARY

Pediatric ophthalmology care – A reflection on current status in Uganda**Wabulembo G.**

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Introduction

This article is intended to generate debate among stakeholders in the delivery of pediatric ophthalmic care in East Africa. It is also intended to emphasize the need for strategies that are region specific and based on activities to prevent blindness in the community through measles immunization, health education, and control of vitamin A deficiency and the provision of tertiary-level eye care facilities for conditions that require specialist management¹. The categories of high, middle and low income countries are so broad that action plans ultimately are informed by the detailed factors in any particular country.

Uganda has a population of about 33million which is largely a young population (0-14 years: 49.1% 15-24 years: 21.2%)². According to the 2006 Uganda Demographic and Health Survey³, 38% of children under five in Uganda are stunted, 16% are underweight and 6% are wasted. This presents a tremendous burden on the eye health services for the pediatric population. We however don't have big population based studies to inform planners on the extent of the problem of childhood blindness and visual impairment. Regarding disabilities, 300,000 (1%) people in Uganda have hearing impairments while 250,000 are blind, the causes of which are largely preventable⁴. Although comparisons between different countries have many confounding factors extrapolation of the findings in the Andra Pradesh population based studies⁵ suggests that amblyopia from the effects of congenital cataracts and uncorrected refractive errors comprise the major burden of childhood blindness and visual impairment in Uganda as well. Based on experience from elsewhere there are efforts to combat childhood blindness and visual impairment in the East African Region. One of the main approaches being adopted in the East African region is the building of pediatric ophthalmology teams as recommended by WHO/ VISION 2020 strategy. The team among others includes pediatric or child-centered ophthalmologist, optometrist, anesthetist, counselor, low-vision therapist and mid-level personnel⁶.

Current pediatric ophthalmology services in Uganda

The details of specific disease management protocols are not in the scope of this paper. Noteworthy for the pediatric cataract as an example, we subscribe to not implanting an intra-ocular lense in the first twelve months but do lens washout posterior capsulotomy and

anterior vitrectomy with a plan to implant when the child is 15-24 months. A more recent study by Plager *et al*⁷ support this approach.

There are currently four centers offering tertiary pediatric ophthalmology care including Mulago, Mengo, Ruharo and Benedictine Hospitals. Only one of the four (Mengo) has a complete pediatric team. Services are offered free in the public sector but enabled through partnerships between government and non-governmental development organizations and are subsidized in the private not for profit hospitals. Accessibility cannot at the moment be categorized as universal because the distribution of the institutions with pediatric tertiary services is mostly in the southern half of the country. Some learning points about the team have emerged and constitute the main discussion in this paper as further progress is directly linked to ensuring that the pediatric team functions optimally.

The team

Pediatric Ophthalmologist: In the limited experience we have had in the region, the tasks of the pediatric ophthalmologists are not clearly spelt out. The few pediatric ophthalmologists (four) available who are heads of these teams work very differently depending on their placement and where they were trained. The outputs therefore vary accordingly. This is not to call for uniformity but for the planning of programs and training facilities and opportunities a harmonious understanding helps in defining expectations. For example in the public sector the absence of optometrists and low vision therapists means that the pediatric ophthalmologist devotes more time to doing several difficult refractions. It also means that children requiring low vision assessment access that service in the not for profit private hospitals introducing an extra expense to the patient. The burden of orthoptic evaluation too is undertaken by the pediatric ophthalmologist in the public sector as the position of orthoptist does not feature in the public sector. In time as information dissemination improves about pediatric eye services some of these factors may become an impediment to timely access to services for some children. As part of career development the pediatric ophthalmologists in the region need accreditation. Whereas service delivery takes precedence there is a felt need to incorporate research to give a better understanding of our pediatric ophthalmology patients and disease patterns.

Child centered ophthalmologist

The child eye centers that offer comprehensive tertiary level care in pediatric ophthalmology are in some instances far apart or distributed in a skewed manner. The role of the child centered ophthalmologist has become greater and more critical. The linkages are still weak among service providers. A carefully thought out plan is essential to ensure that children who need services that are not available at the child centered facilities can be availed either through an outreach approach or a strong referral system.

Optometrist

The support required from optometrists in ensuring that children get the right prescription and wear correct glasses at all times cannot be overemphasized. Currently there are only eight qualified optometrists in the country all of whom are in the private sector. The public sector has not yet established positions for this cadre. On a positive note however the process to have it in the public sector is on course and in-country training will soon be available. In their interim training of mid-level cadres in pediatric refractions is being implemented.

Low vision therapist

These crucial personnel in putting to maximum use what vision a patient has by using appropriate devices is still not yet recognized in the public sector. There are four low vision therapists in Uganda only two doing full-time low vision work. Two are overwhelmed by number of clients, one is underutilized and one not actively practicing low vision. We can maximize benefit by more enlightenment among the eye practitioners regarding the role of low vision therapists and referral of potential beneficiaries. What should our approach be for the cadres that do not exist in the public sector at this time when we are looking at integration of eye services in the mainstream health care delivery system. It might be prudent to coalesce some of these tasks into one or two cadres then strongly advocate for their inclusion in the public sector which in the East African Region still plays the greater role in health care delivery. We can take advantage of policy statements such as “Addressing the human resource crisis and redefining the institutional framework for training of Health workers, including the mandate of all actors, leadership and coordination mechanisms, with the aim of improving both the quantity and quality of health workers production⁸⁷”.

Anaesthetist

The anaesthetists are still few in Uganda especially outside urban establishments and none exclusively dedicated to eye departments. But this presents a

unique opportunity for advocacy at local hospital level. The opportunity is for the eye fraternity to advocate and where possible facilitate the anaesthetists to obtain additional training in pediatric anaesthesia. This not only improves safety of the pediatric surgeries but also enhances the anaesthetists’ commitment to the eye departments.

Counselor

Because of the ramifications of HIV/AIDS many nurses in the public sector have undergone basic counseling training. The need for counseling in pediatric ophthalmology is even greater considering information gaps among the community with respect to pediatric cataracts, strabismus, congenital anatomical anomalies and relevant information on nutrition. In the public sector, nurses in the eye departments take on most of this responsibility. Professional counselors where available can be equipped with relevant eye health information to carry on this role.

Mid-level personnel

Ophthalmic clinical officers have exhibited a lot of versatility in taking on tasks in refraction and remain key in supporting the pediatric team in service delivery.

Optical services

Integration of optical services in the public sector remains a challenge. There are initiatives to establish optical workshops in some regional hospitals as a way of increasing accessibility. We do not have enough experience to comment on how this will impact optical service delivery in future.

Data

There are gaps in the data on childhood eye health yet this information is crucial in planning, evaluation and advocacy for eye care. An archive of the studies conducted in the Country on child eye health however small is worth compiling to further advance the cause for more resources to be allocated to eye care. Uganda has one of the highest fertility rates at 6.3 as reported by the World Bank 2008 report; an estimated 1.4 million infants are born every year with few of them registered and even fewer issued with birth certificates. The Uganda Health Demographic Survey¹ reported that only 21 out of 100 children aged 5 years and below had had their birth registered. A common strategy in the region is essential to generate a data bank alongside service delivery which takes advantage of the revamped registration of births.

The patients and their care givers

Reflection on the costs involved in the follow up of children for example those with pediatric cataract and those with congenital glaucoma demands careful

thought on the plan for follow up. For example, suppose there is one low vision therapist at a facility, is it enough to only give a date appointment for assessment? Would it not be more appropriate to attempt to allocate time in addition to the date. I would argue that if five patients turned up at 8.00am to see the same officer the 4th or 5th to be seen may not be motivated to come back because of the long waiting time.

How much coordination is there among the different officers within the same facility when it comes to review appointments? For each patient more needs to be done to keep visits to the optimum number and to essential ones only. Another aspect is the need for advance information of costs of different services the patient may incur each visit.

CONCLUSION

We don't have a long history in delivery of pediatric ophthalmology services as they are understood today. We have the opportunity to develop them based on our local context to ensure that as many children who need these services can access them. We have the challenge of using the limited human resource to benefit more. Additionally we need to have a well-coordinated action plan to strengthen data collection and accelerate training of more personnel at all levels. We should constantly take into account the resources available to the pediatric patient so as to have a most cost effective follow up plan.

REFERENCES

1. Clare Gilbert & Allen Foster. *Childhood blindness in the context of VISION 2020*. World Health Organization 2001. Clare Gilbert¹ & Allen Foster². (2001). *Childhood blindness in the context of VISION 2020*. World Health Organization 2001.
2. CIA World Factbook: . *Uganda Demographics Profile 2013*. Retrieved april 07, 2013, from index mundi: http://www.indexmundi.com/uganda/demographics_profile.html
3. *The Uganda 2006 Demographic and Health Survey*. Kampala: Uganda Bureau of Statistics (UBOS) and Macro International Inc. 2007.
4. *Health Sector Strategic & Investment Plan- Promoting People's Health to Enhance Socio-economic Development*. Ministry of Health Uganda.
5. Dandona RD. Childhood blindness in India: a population based perspective. *Brit J Ophthalmol*. 2003; **87**(3): 263-265.
6. *Global Initiative for The Elimination of Avoidable Blindness Action Plan 2006-2011*. GENEVA: World Health Organization 2007
7. Plager DA, Lynn MJ, Buckley EG, Wilson E *et al*. Complications, adverse events and additional intraocular surgery one year after cataract surgery in the Infant Aphakia Treatment Study. *Ophthalmology*. **118**(12), 2330-2334.
8. *Health Sector Strategic Plan Iii 2010/11-2014/15*. Ministry Health Uganda.