

## Vision 2020 the Right to Sight: Where exactly are we in Nigeria?

Adio AO, Nathaniel GI

Department of Ophthalmology, University of Port Harcourt teaching Hospital, Rivers state, Nigeria

Date Received: 12th July, 2013

### INTRODUCTION

V2020-the Right to Sight, established in 1999 is the global initiative for the elimination of avoidable blindness as a joint program of the World Health Organization (WHO) and the International Agency for the Prevention of Blindness (IAPB) with international membership of NGOs, professional associations, eye care institutions and corporations.<sup>1</sup>

The mission of this initiative is to eliminate the main causes of avoidable blindness by the year 2020 by facilitating the planning, development and implementation of sustainable national eye care programs by the year 2020.<sup>1</sup>In addition to this, the vision is to have a world in which no one is needlessly blind and where those with unavoidable vision loss can regardless achieve their full potential.

These are based on 3 core strategies within the principle of primary health care (PHC) by mobilising action of the relevant agencies through advocacy and mobilising resources.

#### These core strategies are

1. Disease control (cataract, refractive errors and low vision, trachoma, onchocerciasis, and a specific group of causes of childhood blindness including vitamin A deficiency) which is cost effective.
2. Development of infrastructure (facilities, appropriate technology/consumables, funds).
3. Human resource development (training and motivation).

#### All these will require community participation.

These 3 strategies are intended to strengthen national and state healthcare systems and facilitate national capacity building in every country and region where it is instituted.

Currently, worldwide there are 45 Million people who are blind and 269 Million people with low vision (VI) and most are living in the developing world.<sup>2</sup>

This V2020 initiative was necessary because 75-80% of the world's visual impairment (VI) burden is preventable and 90% of the world's visually impaired people live in developing countries of which Nigeria is one.<sup>2</sup>

However, as mankind advanced over the centuries, cost-

effective interventions have now evolved for each of these diseases. It is therefore calculated that if great priority is given at the global level to improving eye-care services for neglected communities and to targeting these five diseases, there will only be 24 million people, instead of 76 million blind people by the year 2020.

#### What is the progress made so far at the global, national and state level?

It is part of the initiative for countries of the world to support the global initiative in every way possible. To this end, countries like Australia, China, Pakistan and India have already made substantial financial contributions to the progress of this initiative following implementation of the initiative in their respective countries.<sup>3</sup>

Indeed one study categorically concluded that based on the progress made so far Indians will be able to meet the V2020 target.<sup>4</sup>

In the Far East like China, the initiative is also being given attention with steps being taken internally to promote the achievement of V2020.<sup>5</sup>

In terms of cataract (being the disease with the most cost effective intervention), a lot of free and subsidized surgeries are going on in the Asias.<sup>6</sup> Likewise in India, higher and higher numbers of cataract surgeries are being done than before with substantial progress and advances being made in the field of ophthalmic surgery and equipment in a cost effective sustainable manner worthy of emulation.<sup>7,8</sup>

In Africa, different nongovernmental organizations (NGOs) are carrying out eye camps with main focus also on cataract surgery in pocket locations. Childhood cataract surgery is being done in Tanzania in large numbers and in Madagascar and Kenya to mention a few.<sup>9</sup> Ghana is also investing in V2020 with citizens accessing free eye care once they register in its vibrant and apparently effective (National health insurance scheme (NHIS)).<sup>10</sup> However, cataract blindness has increased globally from 41.8% in 1990 to 51% in 2010.<sup>11</sup> It looks like not enough is being done.<sup>12</sup>

In terms of human resources, India is achieving in terms of numbers of trained eye care workers with almost 10,000 ophthalmologists and systems in place which are effective. This is a great example of what has been achieved and a similar thing can be done in Africa.<sup>4</sup>

Particularly in children, correcting refractive errors is important in reducing visual impairment.<sup>13</sup>

### What is the situation in Nigeria? (Figure 1)

Nigeria whose capital is located in Abuja with an estimated population of 140M has 6 geopolitical zones. The Nigerian Prevention of Blindness Committee (NPPB) now recently changed to National Eye Health Program (NEHP) was set up in 1990 after which the V2020-right to sight initiative was just ratified in October 12, 2000, ten years after. Prior to 2005, there had been no coordinated study carried out at national level. An informal meta-analysis of studies carried out in some areas in Nigeria were all pointing to a national prevalence of blindness of 1%, some 20 years ago, with some areas in the northern parts up to 6.6%.



**Figure 1: The map of Nigeria**

Seven years after the global initiative, the Nigerian National blindness and visual impairment survey was carried out between 2005 and 2007 with results released in 2008. This survey, the first of its kind in Nigeria was partly sponsored by the Nigerian government, the London School of Hygiene and Tropical Medicine and the International Center for Eye Health in collaboration with NGOs.<sup>14</sup> A cross section of about 14,000 Nigerians using multi stage stratified cluster random sampling were selected across the country who were 40 years and above.

### A summary of its findings are as follows:<sup>14</sup>

The prevalence of blindness was 4.2% in those over 40 years old (0.78% in people of all ages). About 84% of blindness was due to avoidable causes.

The prevalence increased significantly with increasing age. **Females were found to** have a higher prevalence of blindness (4.4%) than males (4%). Illiterates were also found to have a far higher prevalence of blindness

(5.8%) than literates (1.5%). The south west geopolitical zone however had the lowest prevalence of blindness (2.8%) in the country while the north east zone had the highest prevalence of blindness (6.1%). A total of 1,130,000 people were found to be blind in Nigeria aged 40 years and over. A total of 4.25 million individuals in Nigeria aged 40 years and over were found to be either visually impaired or blind.

### What are the causes of blindness in Nigeria?

Cataract is the commonest cause of severe visual impairment (45.3%) and blindness (43%) followed by Glaucoma (16.7%) then corneal scarring from all causes responsible for 7.9% of blindness. Uncorrected refractive errors were commonest cause of mild (77.9%) and moderate VI (57.1%).<sup>14</sup>

Almost 50% (46.1%) were found to have treated their cataract with couching (- a primitive method first carried out since ancient times<sup>15</sup> which can lead to severe intraocular inflammation, raised intraocular pressure and possible blindness.) The highest number of couched eyes was in the north east GPZ and the lowest cases found in south south GPZ. Couching is so widespread because good affordable surgery is unavailable to most.<sup>15</sup>

The CSR (which is the number of cataract surgeries taking place every year per million population) in Nigeria should be at least 2000/million/year. However it is only 333/million population/year in Nigeria (less than 20% of what it should be (17.5%)).<sup>16</sup>

The CSR is however only 100/million population/year in Rivers state based on reported cases operated upon. It is necessary to improve upon these figures.

This will only be possible if good quality cataract surgery by dedicated, well-motivated eye care staff is available close to where people live.

### What about children eye care?

Of the 45 million people who are blind worldwide, 1.4 million are children from middle and low income countries majority of whom live in the poorest areas of Africa and Asia<sup>17</sup>, This special group of people require specialized eye care which currently is very poor in the country as a whole and abysmal at state level. They are a very important group of people-the future of this country and they need to be consciously planned for.

To adequately care for them requires subspecialty training and well trained paediatric anaesthetists and orthoptists with dedicated case finders particularly for those in rural areas without access to care. Though the numbers of children examined in the Nigerian blindness survey were not representative, it still gives an indication of what the situation is in the country.

Prevalence of blindness was 0.6% among children aged 10-15 years. (ie 6 in every 1000 child is blind in Nigeria). Female children had a higher prevalence of blindness (0.89%) compared to males(0.33%). Interestingly children in the south-south had the highest prevalence of blindness.<sup>18</sup>

In terms of human resources currently, there are about 5 fully trained paediatric ophthalmologists in Nigeria (i.e. has undergone full 1 year to 1 and a half year fellowship program in a high volume center) in addition to other pediatric oriented (ie no formal training but experienced and practising) and short term trained ophthalmologists. This low figure is probably due to the fact that the full training is long (up to 15 to 18 months minimum in some places) and children are perceived to be difficult to handle and so very few ophthalmologists venture into this field.

### When did the Nigerian eye care plan start?

After the Nigerian blindness survey data collection ended nationwide, a 5 year strategic plan for Nigeria was launched in 2007 which was to last between 2008 to 2012.

The plan was to use the 3 core strategies to achieve vision for all by the year 2020 in Nigeria in line with the international initiative. It expired 2012. However relatively little has been achieved at the national and at most state levels since it was launched.

### Why?

Government funding has been so paltry in the implementation of the 5 year plan till it expired. Very low figures are allocated to eye health and the little there is, is extremely difficult to access, most times impossible. Some states however have programs with varied targets and objectives which are not efficiently nationally coordinated therefore there is no national data on their impact.

There is no demonstrable program intervention at federal level in 5 years other than in trachoma in some areas.<sup>16</sup> There is also no efficient tracking to detect quantities of ophthalmic surgeries being done (by individuals, hospitals both private and government and partner NGOs working in different states).

The number of qualified general ophthalmologists in Nigeria is about 400 which is approximately 2 per million population recommended by World Health Organization (WHO). However their effect is not palpable because they are nearly all located in the capitals not in the rural areas where they will be able to do the most good. There is also no incentive to make them work in these potentially high impact areas.

However in terms of eye care work, states like Lagos, Kwara, Cross Rivers state, Sokoto and Kaduna state have been making giant strides in terms of eye care in partnership with nongovernmental organizations in most of these states except Lagos state where the state government has been supporting eye care massively. All these states have their own eye care plan.

### Rivers state. (Figure 2)

Rivers state, one of 36 states in Nigeria is located in the south south geopolitical zone. Its capital is Port Harcourt. The state has 3 senatorial zones with a total population of 5.5M (50.3% males and 49.97% females). There are 23 LGAs with a total land mass of 98,000 sq km. There are 3 major languages spoken namely Kalabari, Ikwerre and Okrika. Twenty five per cent of the population is urban. Literacy rate is 62% with a male female distribution of 70 and 54. Life expectancy is 64 years.

Rivers state inaugurated its own Prevention of Blindness committee in December 2008 and published their 5 year eye care plan in 2009.<sup>19,20</sup> However at the national level, perhaps to a more critical degree, virtually nothing is being done to implement it. Overall prevalence of blindness is 0.8% (3.2% in people older than 40 years) in the state.



Figure 2: Rivers state marked in red.

Important causes of blindness in this state include cataract, glaucoma, corneal blindness and uncorrected refractive errors. Calculations from the results of the Nigerian blindness survey indicate that 22,308 people are blind in Rivers state.<sup>18</sup>

Cataract is responsible for blindness in both eyes in 14,670 people (51.7%) with new cases of up to 3881 cataract blind/year. Glaucoma- which is a cause of irreversible blindness in 4337 people (16.7%). Corneal opacity was found to cause blindness in 8% (n=2270

people). Age related macular degeneration (ARMD) causes 5% of blindness (n=1418 people).

Worthy of note is the development of health related infrastructure in the state with over 100 new hospitals and health centers built,<sup>20</sup> however they are staffed with general practitioners with very little further training after medical school. Efforts should be made to encourage specialisation in order to carry the health care delivery to a much higher level.

### The challenges noted in the state in terms of eye care delivery are as follows

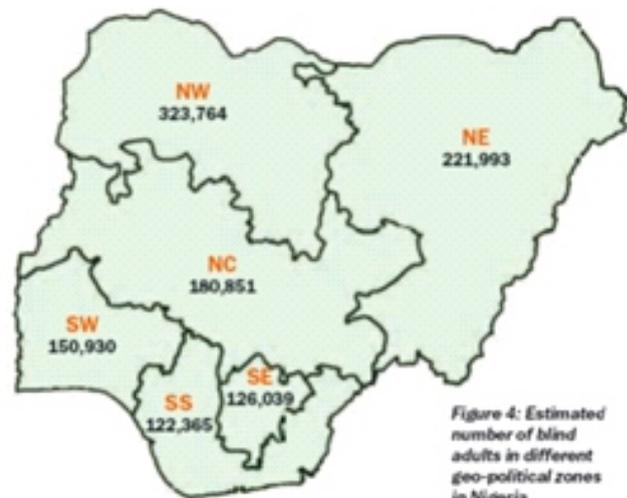
1. There is no functional school eye health program.
2. No education/rehabilitation service for visually impaired children and adults.
3. No integrated education available.
4. All eye care is located in the capital. Outside the capital, eye care is non-existent and all patients whether riverine or landed or livings on islands have to come to the capital to access eye care.
5. No functional systems in place for effective referrals
6. The prevention of blindness(PBL) committee is not empowered

This is because there has been no significant funding of the activities of the PBL committee since its inception and so activities which have been outlined and planned to take place local government by local government have not been carried out till date. There has been no office or staffing allocated either. However the committee was able to carry out some cataract surgeries(51 cases, 2010 World Sight Day activity) and glaucoma screening in 2 places( Okochiri and Braithwaite memorial hospital(BMH-World Glaucoma Day activities 2009) with educational and public enlightenment programs on radio and television.<sup>19,20</sup>

In terms of existing human resources, there are only 16 fully trained general ophthalmologists working in the state (including 2 newly graduated ones) - 9 in the teaching hospital and 7 in the state. One is not practising as an ophthalmologist. One is a subspecialist in paediatric ophthalmology. There are 24 ophthalmic nurses along with 16 optometrists (6 in the teaching hospital and 10 in the state hospital) .There are however no dispensing technician/instrument technicians. There is an outreach being developed by the local teaching hospital at K-Dere and B-Dere townships in the Bori local government. This was piggybacked on to an existing Community Medicine Department of the

University of Port Harcourt collaboration with the communities; however it is poorly funded and has not been very stable as the area is fraught with too many communal clashes. Very few NGOs are working in the state-there are no international ones currently. All are local NGOs sponsoring the very occasional eye camp.

The state Eye care plan will expire in 2013 and there has been no activity at all in the past few years despite numerous advocacy visits to the Rivers state Ministry of health



**Figure 3: The estimated number blind in different zones in Nigeria.(Culled from figure 4 of the Nigerian blindness and visual impairment survey 2005-2007 report)**

### So is the V2020 initiative achievable in Rivers state, and in Nigeria as a whole?

In Nigeria with 1.2 million people blind from mostly treatable causes??? (Figure 3)

In Rivers state, where 25,000 are blind from mostly treatable causes??? Many of them in difficult to access areas...

Few efficient national or state programs to combat the problem...

No separate funding..... (eye care grouped under Neglected Tropical Diseases at health ministry level)- N50 million budgeted for the 5 year strategic plan for Rivers state. Only 0.03% of budget released since inception....

Is there political will.....??? Looks apparently

absent at state and at national level....

However, though it looks like not much is being done at both state and at national level, the total percentage of those who are blind in the country is very marginally reducing from 1% to its current 0.78%.<sup>14</sup>

Newly emergent diseases like Diabetic eye disease, Age related macular degeneration, and Retinopathy of prematurity showing up at global level also appear to be coming up in this region at increasingly higher proportions .<sup>21</sup> These are currently causing more morbidity compared with infective causes of visual impairment.

Other factors equally challenging the state and the country are the following

- a. Gender inequity in access to eye care.
- b. Childhood blindness and the training of health personnel capable of handling them.
- c. More older people alive due to better health care and better socioeconomic developments and therefore more cases of age related causes of blindness.
- d. Competition with herbalists as couching is responsible for over half of the cataract surgery going on.<sup>15</sup>

**There are 7 more years to go to 2020.....**

#### **What needs to be done?**

We need to 'scale up' our game...<sup>22</sup>

#### **How??**

More advocacy. More advocacy. more advocacy than ever before...

High powered lobbying..... maybe someone will eventually pay attention to the figures. The problem is that we doctors are not trained for this at all....

Convince governments to channel increased resources to eye health promotion and the goals of Vision 2020.

Separate budget for eye care at both national and state levels

Another V2020 strategic plan to be drawn and this time carried out in a timely, organized and efficient manner.

Advocate for NGOs to help at state level without taking over (however Rivers state area has a recent unfortunate history of being 'unstable and hostile

to foreigners'). (NGOs already active in Nigeria that have rarely if ever come to the aid of Rivers state-CBM, International health initiative, Sight savers, Dark and light blind care, HKI, ORBIS etc) probably because of this. There are indications that the instability is blowing over. It is also quite possible that if aid is received it will have a calming effect.

Partnerships between hospitals and international bodies from developed areas with developing areas- e.g. recent effective ones include the following-A United Kingdom hospital (Altnagevin hospital (Western health and Social Care trust-WHSCT) with ECWA Eye hospital in Kano and International Council of Ophthalmology (ICO) and University College Hospital, Ibadan. This has helped training and provision of equipment which has helped these hospitals to achieve impact in eye care delivery.

A recent similar partnership sought for the University of Port Harcourt teaching hospital with a United Kingdom hospital failed because of the local security problems within the state.

#### **What do we need?**

Equitable distribution of eye care workers

Better training. We should avoid mediocrity. Encourage acquisition of skills

Monitor surgeries and ensure quality work is done

Pay more attention to low vision and children eye care

Better trained support staff

Offer differential pricing where it can work and allow those who can pay for services to pay

Put in place simple, valid methods to identify those too poor to pay for surgery and assist. No one is to go without care simply because he/she cannot pay, it is not humane.

Train more integrated eye care workers to be able to do the work more efficiently

Urgent development of properly managed eye care systems that can address chronic eye diseases with rehabilitation, education and support services.

#### **The last word.....**

There should be room for complacency any longer. This is our country and we have no other.

486,000 people require urgent cataract surgery

in Nigeria.<sup>14</sup>

An 'All hands should be on deck' attitude needs to prevail to address the remaining challenges of VISION 2020.

Continued coordination and cooperation from government and NGOs are critical to reach Vision 2020 goals.

Lastly let our collective ATTITUDES to work and responsibility change!

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