

# THE ROLE OF OPTOMETRY IN PRIMARY HEALTH CARE DELIVERY IN NIGERIA: A CASE STUDY OF ABIA STATE UNIVERSITY, UTURU, NIGERIA

N. C. OSUCHUKWU

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## ABSTRACT

Optometry as a profession has a very important place in the Primary Health Care Programme for us to achieve health for all by 2010. Optometry is the art and science of vision care. An optometrist as defined by the Optometrists and Dispensing Opticians Registration Board of Nigeria is a health-care professional specializing in the art and science of vision care and whose scope of practice include eye examinations to determine refractive errors and other departures from the optimally healthy and visually efficient eye; corrections of refractive errors of binocularity by means of vision training (orthoptics), diagnosis and management of minor ocular infections which do not pose a threat to the integrity of the ocular or visual system, and ocular first aid. The Optometrist by training is in the position to move vision and eye care delivery as close as possible to where people live and work. The global initiative, "Vision 2020 The right to Sight" established by the World Health Organization (WHO) and the International Agency for the Prevention of Blindness, has created valuable and effective collaboration with organizations involved in a wide range of eye care and community healthcare activities aimed at the elimination of avoidable blindness and impaired vision. The Vision 2020's major priorities are the tackling of cataract, trachoma, onchocerciasis, childhood blindness, refractive error, low vision and so on. These have been selected not only because of the burden of blindness that they represent but, also because of the feasibility and affordability of interventions to prevent and treat these conditions.

**KEYWORDS** Optometry, Primary Health Care, Nigeria

## INTRODUCTION

Primary health care is defined as; "...essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in a spirit of self determination, it forms the integral part of both the country health system of which it is the central function and main focus of the overall social and economic development of the community. It is the first level of contact of the individual, the family and the community with the national health system, bringing health care as close as possible to where people live and work and constitutes the first element of continuing health care process" (Egwu, 1996).

Health care delivery in the whole world has taken a new dimension and health for all by the year 2010 through Primary Health Care (PHC) is now almost a household word. This new dimension is moving health care delivery to the grassroot. It was after the 30<sup>th</sup> World Health Assembly in September, 1978 in Alma-Ata, USSR, that it gained sound ground with a declaration that is now popularly known as Alma-Ata Declaration. The important ideas in Primary Health Care are intersectoral collaboration, community involvement and the development of appropriate technology. The success of the program is based on the aforementioned ideas fortified with political commitment. (Helbery, 1986)

## PRIMARY HEALTH CARE IN NIGERIA

In our country Nigeria, Primary Health Care was launched in August 1986, by the then Military President General Ibrahim Babangida. At the launching, the President described Primary Health Care as, "the foundation of a nation's health care delivery system and is essential to its economic, social and political development (WHO Newsletter 1986)". The President declared Nigeria's commitment to the PHC system and reaffirmed her active participation in the

worldwide movement to bring health care services to everyone.

Our country (Nigeria) was divided into four PHC zones in 1986 with zonal offices and coordinators located in Enugu, Ibadan, Kaduna and Bauchi. Fifty-two model local government areas were divided into districts and each districts had a population ranging from 15,000 to 20,000. (WHO Newsletter, 1986) Since the PHC was launched in Nigeria, the health sector has recorded a lot of successes. Many infants and pregnant mothers have been immunized and oral rehydration therapy (ORT) has been widely taught through Expanded Programme on Immunization (EPI). The Family Planning Programme has gained a lot of ground and community health centers have sprang up in many rural areas. There has been increased supply of adequate safe drinking water especially in river blindness and guinea worm infested areas of the country. Additionally, efforts were geared towards good housing facilities, balanced nutrition, clean environment and basic sanitation by the defunct Directorate for Food, Road and Rural Infrastructure (DFRRI), the Federal Ministry of Agriculture, Water Resources and Rural Development, and their state counterparts.

## OPTOMETRY'S ROLE IN PHC

Optometry is part of the health sector. One may ask, what is the role of Optometry in this widely talked about PHC? How has Optometry as a profession contributed to the bustling activities in the health sector through the PHC programme in Nigeria?

On the role of Optometry in this widely talked about Primary Health Care, the profession of optometry which is defined as a health-care profession specializing in the art and science of vision care. Its scope of practice includes determination and correction of refractive errors, orthoptics, diagnosis and management of minor ocular infections which do not pose a threat to the integrity of the ocular or visual system and ocular first aid. The Optometrist is usually the first contact practitioner in the field of vision and eye care. People consult them first most times about their vision and eye problems. The Optometrist examines them, diagnose and treat

those cases within his scope of practice while referring those cases outside his scope of practice to either the Ophthalmologist or other health practitioners as the case may be.

Optometry as a profession has contributed to the bustling activities in the health sector through the PHC programme in Nigeria for example with what is obtained in the then school of Optometry, Imo State University, Okigwe, now Abia State University, Uturu. The school started vision screening in schools and communities. The programmes are using the modified model of Primary Health Care which is accessibility, affordability, acceptability of health care delivery and community participation. These programmes have assisted in averting the occurrence of blindness in a lot of people who under normal circumstances would have gone blind because of either lack of knowledge of the services eye care providers or inability to afford services that would have been rendered to them if they had gone to a standard Optometry Clinic. Optometric services, are somewhat expensive especially in developing countries. Due to ignorance, this aspect of the health sector is not valued as in developed countries, as most people overlook the services rendered by the profession. This is evidenced in the way people handle their eye problems. Most of the time, minor eye problems are left to go untreated while serious eye problems are treated traditionally. When these people eventually decide to consult an eye care professional, the extent of visual loss would have minified with a poor prognosis. The reason these people usually give is that seeking for the services of an orthodox medical personnel is a waste of precious time and money.

The community health programmes, instituted by the school of optometry, Abia State University, have aided to redirect the thinking and belief of most of these rural people and have propelled them to seek vision and eye care services whenever these community outreach clinics are held. The student clinicians then supervised by their lecturers, screen children in both primary and secondary school in these rural communities both in Imo and Abia State free of charge. The referred case are treated at reduce cost, while the outreach clinic, also run by optometric Clinic, Abia State University offer free consultation at reduced cost of treatment to enable the patients afford them. The outreach clinic moved from one community and /or individual establishment to the other. The village heads or heads of industries organized the people and the place where the clinic was to be held. From January to December 1987 the school was able to screen about 1394 children, out of which 455(32%) were referred for further eye examination (see table 1). In the same period, the number of patients examined in the outreach clinic was 1991. A total of 760 patients were seen in the regular University Clinic set up inside the Abia State University, at Uturu within the same period (January – December 1987). When one compared those seen during outreach and those seen at the University Optometry clinic, it was found that outreach clinics offered more opportunities of seeing a greater number of patient with eye problems (63%) than the regular University Optometry Clinic setting (37%) (see table 2). This goes a long way to highlight the immense benefit of this aspect of PHC programme.

Table 1: The vision eye problems seen in the community outreach clinics of the school of Optometry, Abia State University Uturu between 1987-1989.

| Vision and eye problem seen | N0  | Vision and eye problem seen | N0 | Vision and eye problem seen | N0 |
|-----------------------------|-----|-----------------------------|----|-----------------------------|----|
| Refractive errors           | 492 | Blepharitis                 | 7  | Chorio-retinitis            | 1  |
| Cataract                    | 360 | Chalazion                   | 6  | Blepharo conjunctivitis     | 1  |
| Pterygium                   | 170 | Macular Regeneration        | 6  | Diabetic Retinopathy        | 1  |
| Glaucoma                    | 99  | Foreign body                | 5  | Anterior Staphylo           | 1  |
| Hypertensive Retinopathy    | 26  | Retinitis                   | 5  | Kerato-conjunctivitis       |    |
| Filaricis                   | 21  | Retinal Haemorrhage         | 5  |                             |    |
| Binocularity Problem        | 20  | Vitreous Opacity            | 4  |                             |    |
| Trauma                      | 18  | Optic Nerve Atrophy         | 3  |                             |    |
| Accommodative Problem       | 16  | Panophthalmitis choroiditis | 3  |                             |    |
| Stye                        | 9   | Dacryocystitis              | 1  |                             |    |
| Keratitis                   | 9   |                             |    |                             |    |

Table 2: The vision and eye problem seen in the university Optometry clinic of the school of optometry, Abia State University, Uturu between 1987 - 1989

| Vision and eye problem seen | N0  | Vision and eye Problem seen | N0 |
|-----------------------------|-----|-----------------------------|----|
| Refractive error            | 470 | Macular degeneration        | 2  |
| Cataract                    | 68  | Optic Atrophy               | 2  |
| Conjunctivitis              | 56  | Keratitis                   | 2  |
| Binocularity Problem        | 48  | Corneal Opacity             | 2  |
| Glaucoma                    | 34  | Filariasis                  | 2  |
| Accommodative Problem       | 24  |                             |    |
| Pterygium                   | 22  |                             |    |
| Trauma                      | 6   |                             |    |
| Hypertensive Retinopathy    | 6   |                             |    |
| Corneal Ulcer               | 6   |                             |    |
| Blepharitis                 | 4   |                             |    |
| Diabetic Retinopathy        | 4   |                             |    |
| Pinguecula                  | 2   |                             |    |

The good news is that while refractive error is amongst the most common causes of blindness and visual

impairment, it is also the easiest to cure (Dondona, 2004). Refractive error can be simply diagnosed, measured and

corrected and the provision of spectacles is an extremely cost effective intervention, providing immediate correction of the problem.

Throughout the world optometry has been the major provision of vision correction, but usually from a private practice setting (Taylor, 2003). Public health optometry has not reached the communities that are in most need in any organized way. Despite this on our own initiative thousands of private optometrists worldwide have regularly visited communities in need to provide vision care and dispense spectacles. The opportunity now is for optometry to develop a concerted effort to create local capacity in these communities in collaboration with its partners in vision 2020 (WHO), through services delivery, by creating human resources and by helping to develop the infrastructure needed, the three cornerstones of the vision 2020 programme.

It is also the objective of PHC to prevent and control locally endemic diseases. It is in the light of this that the schools of Optometry in the country, those of Imo State University, Abia State University and the University of Benin started the Onchocerciasis project thanks to the research grant by an Global 2000, based in the University of Houston, Texas

## CONCLUSION

Optometry as a profession has contributed a lot to the success of Primary Health Care Programme in Nigeria, though a lot still need to be done both on the national and the individual level. On the national level, efforts should be geared towards awareness and promotory programmes. The federal, state, local governments and affluent individuals in the country can help the national body, the Nigeria Optometric Association (NOA) and schools of Optometry in the country financially, to help extend these services to more communities/industries. There are, for example about 540 autonomous communities in the old Imo State alone and the department of Optometry, Abia State University is financially incapable of extending these outreach clinics to all these autonomous communities. The federal government once donated one million U.S dollars to ORBIS: the American funded mobile eye clinic, when they came to Nigeria. We expect the government to extend this same gesture to the schools of Optometry in the country. This will increase their contribution to the PHC programmes.

Optometry and the optical industry in its broadest sense should be able to find the financial resources to give this simplest gift of sight. Individuals on the other hand can

organize for optometrists to carry out screening and community outreach clinics. The only set back is that it may become profit driven, thereby defeating the objective of PHC.

Preventable blindness is one of the most tragic and wasteful global problems. Optometry is an essential part of the team that will eliminate this tragedy, by understanding global eyecare needs and delivering effective and sustainable vision care to people in need, thereby ensuring their fundamental right to sight.

The goal of attaining "health for all by year 2010" which will lead to a socially and economically productive life as defined by the 30<sup>th</sup> World Health Assembly in 1978 may not be attained without the contribution of Optometric profession

## REFERENCES

- Dandona, R., 2004. Refractive errors in children in a rural population in India. *Invest Ophthalmol Vis. Sci.* 43 (3): 615-622.
- Egwu, I. N. 1996. *Primary Health Care System in Nigeria Theory, practice and perspectives*. First Edition. Elmore Printing and Publishing Co. Surulere, Lagos pp. 8-9.
- Hakan, Hellberg., 1986. *The Birth and growth of Primary Health Care: World Health Organisation, Geneva. October.* pp.10 -13.
- Taylor, H. R., 2003. Visual Impairment in Australia distance visual acuity, near vision and visual field findings of the Melbourne Vision Impairment unit. *Am J Ophthalmol.* 123: 328-337.
- WHO in Action., 1986. *Primary Health Care in Practice; World Health Forum. Geneva, 2(2): 3 - 4.*
- WHO., 2000. *From Alma-Ata to the year 2000: Reflection at the Mid point; World Health Organization, Geneva Pp.3-7*
- WHO., 2000. *World Health Organization. Elimination of avoidable visual disability due to refractive errors (WHO/PBL/00.79). Geneva*