

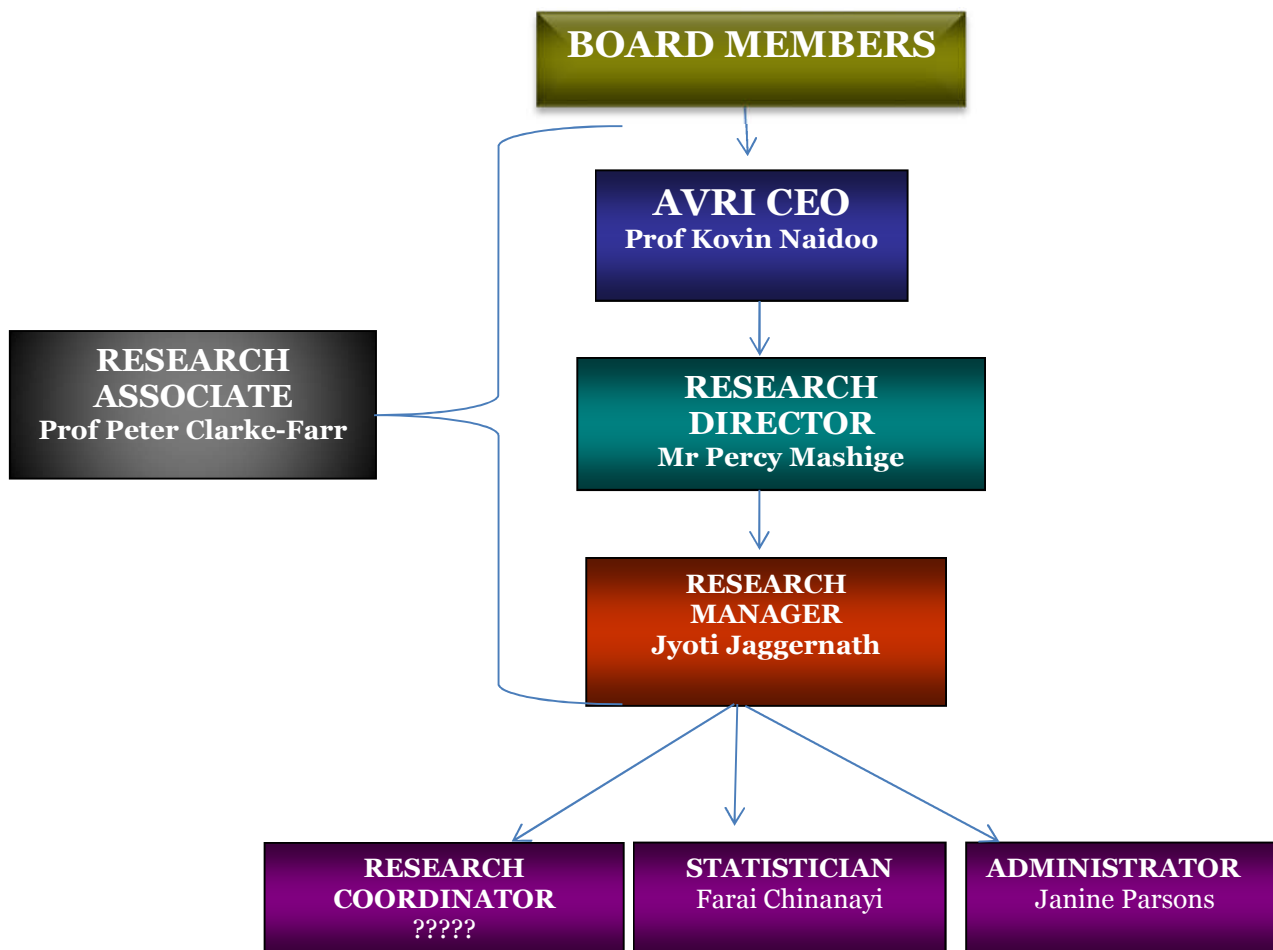


# **THE AFRICAN VISION RESEARCH INSTITUTE**

## **RESEARCH UPDATE**

**2012-2013**

## 1. AVRI Structure



### **Board Members**

1. Dr Hannah Faal (Chair Person)
2. Dr Linda Visser (Director)
3. Prof Kovin Naidoo (CEO)
4. Prof Brien Holden
5. Dr Daniel Etya'ale
6. Prof Salim Abdool Karim
7. Mr Percy Mashige
8. Mr Ronnie Graham
9. Prof Adenike Abiose

### **Staff Members**

1. CEO: Prof. Kovin Naidoo
2. Research Director (Brien Holden Vision Institute Fellow): Percy Mashige
3. Research Manager: Dr. Jyoti Jaggernath
4. Senior Administrator: Mrs Janine Parsons
5. Brien Holden Vision Institute Fellow – Farai Chinanyi
6. Research Co-ordinator: Post to be advertised

## 2. Research Projects

Location	Research	Collaborators
East Africa	SIB: Child Eye Health Research in Uganda, Kenya, Tanzania	EACO
West Africa	Nigeria post Cataract Outcome Study	Tulsiraj Foundation
Southern Africa	An evaluation of the Moorfields Motion Displacement Test (MDT) in detecting glaucoma and it's suitability in the developing world	Dublin Institute of Technology, Sightsavers
	Near Vision Spectacle Provision & Work Productivity	Brien Holden Vision Institute, Sightsavers
	Poverty and Eye Health Study	ORBIS, Brien Holden Vision Institute
	Cataract Prevalence & Impact Study	National Cataract Coalition
Sub-Saharan Africa	Mapping Human Resources for Eye Health in Sub-Saharan Africa	London School of Hygiene and Tropical Medicine
	Mapping Research Capacity and Resources for Eye health research in Sub-Saharan Africa	Sightsavers

## 3. Research Workshops

Location	Collaborating Institution	Partnership/ Funding	Capacity Building Programme
South Africa	University of KwaZulu-Natal, Brien Holden Vision Institute	Sightsavers Brien Holden Vision Institute	Research Methodology Basic Statistics Scientific Writing Stata (version 10.0) Application Postgraduate student supervision and mentorship
Ghana	University Kwame Nkrumah University	Sightsavers	Basic Statistics Stata (version 10.0) Application Postgraduate student supervision and mentorship
Tanzania	East Africa College of Ophthalmology	EACO	Scientific Writing
India	India Vision Institute	Brien Holden Vision Institute	Research Methodology Basic Statistics

## 1. Training Workshops held in 2012

- **India: July 2012: Research Methodology: Prof Kovin Naidoo and Dr Jyoti Jaggernath**

Research methodology workshops conducted by AVRI have attracted clinicians, eye care managers and government officials (national eye care coordinators) in India.

- **Durban: September 2012: Health Economics and Eye care Lecture: Prof. Kevin Frick**

Issues regarding the cost of blindness, visual impairment and the impact on productivity have become major considerations in program strategy and advocacy efforts for blindness prevention. Prof Kevin Frick, a renowned John Hopkins Health economist who has co-authored on some of the most influential papers in eye care and health economics conducted a lecture which discussed strategies for determining the economic impact of avoidable blindness and visual impairment.

- **Ghana: October 2012: Basic Statistics & Stata 10.0 Workshop at the Kwame Nkrumah University of Science and Technology (KNUST): Mr Farai Chinanayi**

The workshop was aimed at strengthening the research foundation for Public Health & Optometry. The workshop brought together postgraduate students, researchers, trainers and academics in the field of public health & optometry. Participants were introduced to types of samples and populations, a range of statistical definitions and terminology, data types and variables, descriptive statistics, statistical inference and hypothesis testing were explored. Presentations and engagements included calculation of point estimators, confidence intervals, methods of hypothesis testing, correlation and linear regression.

- **India: December 2012: An Introduction to Basic Statistics: Mr Farai Chinanayi**

The workshop was a preliminary course to biostatistics. The course focused on several introductory topics in biostatistics which form the basis for further methods such as linear regression, logistic regression and survival analysis.

- **India: December 2012: Scientific Writing: Dr Tom Okello**

This workshop intended to help eye health cadres and researchers develop their skills in written communication and make them more effective in sharing their knowledge of science in the future in the form of scientific papers, reports and peer reviewed articles.

## 2. Strategic Workshops hosted in 2012

### **Durban: November 2012: Research Capacity Building: Developing a Research Agenda**

This strategic planning workshop was an assembly of relevant stakeholders and research leaders, who congregated to develop a research capacity plan by identifying key priority areas that will strengthen, build and enhance the opportunities and capabilities of research individuals and in creating supportive and enabling environments; in order to develop skills that are essential to perform relevant and excellent research. The workshop expanded on 3 key conventions:

- The IAPB Vision2020 research priorities workshop held in Durban in May 2010.
- The IAPB Vision2020 meeting on research for global blindness prevention held at LAICO (Madurai) in September 2010.
- The IAPB Vision2020 workshop held in West Africa in June 2011.

The purpose of the workshop was to map out the status of eye health research in Africa; identify existing research capacity and resources; identify areas of research that need to be strengthened and developed; and subsequently formulate a research agenda that addresses the gaps in eye health research in Africa. The aim of the workshop was to develop a sound action plan for Africa that will contribute to the strengthening and building of research capacity and research activities and output in Africa.

## 4. Honorary Research Fellows

Name	Position
<b>Appointments</b>	
Dr Elena Schmit	Sightsavers Research Director
Dr Muhammad Mansur Rabiu	Technical Advisor at the EMR –IAPB, Riyadh, Saudi Arabia; and a Director of Programs at IMPACT-EMR and PBU.
Dr Elizabeth Osim Elhassan	Sightsavers: Regional Director - West African region
<b>New Appointment: Motivations submitted</b>	
Prof Jill Keefe	
Dr David Wilson	Brien Holden Vision Institute Research Manager (Sydney)
Ravikanth Metlapally	University of California: Clinical Scientist
Sangeetha Metlapally	University of California: Clinical Scientist

## 5. Postgraduate Students

Masters: 13 & PhD: 11

NAME	COUNTRY	LEVEL	TOPIC	STATUS
Yashika Inderjeet	South Africa	Masters	An evaluation of Current Approaches to Addressing Refractive Error on Learners Attending Mainstream Primary Schools in KwaZulu-Natal	Data Collection
Zaheera Abdool	South Africa	Masters	Development and Evaluation of a Team Approach to Preventing, Detecting and Referring Diabetic Retinopathy in a District Health System	Write-Up
Sindi Mthehwa	South Africa	Masters	Identifying the Barriers to Meeting the Cataract Surgery Rate Targets in KwaZulu-Natal	Received Approval
France Nxumalo	South Africa	Masters	Knowledge, Attitudes, Beliefs and Practices of Refractive Error by School going children of the Inanda, Ntuzuma and KwaMashu areas in Durban, KwaZulu-Natal	Data Collected & Analysed
Prasidh Ramson	South Africa	Masters	Recruitment and Retention of Optometrists in the Public Sector in South Africa	Data Collection

Diane Wallace	South Africa	PhD	An Evaluation of Implementation Methods Adopted in the Development of a Regional School of Optometry in Mozambique: Lessons for Expansion of the Model	Protocol
Vanessa Moodley	South Africa	PhD	Development of a Framework for the Recruitment, Retention and Legislative Support of a Regional Multiple Entry and Exit Optometry Programme	Protocol
Kajal Shah		Masters	Evaluation of refraction competencies existing and new personnel in Mozambique	
Percy Mashige	South Africa	PhD	An Analysis of Productivity Loss due to Visual Impairment (tentative)	Preparing Protocol
Stephen Thompson	England	PhD	An Economic Evaluation Of The Impact Of Refractive Error In Nampula, Mozambique	Reviewing Literature
Aoife Phelan	Ireland	PhD	Development of a National Child Eyecare Strategy for Mozambique	Research Started
Bernadine Nsa Ekpenyong	Nigeria	PhD	Assessment of eye health status of school age children in Cross River State , Nigeria	
Emmanuel Owusu	Ghana	Masters	Knowledge of Significant Others of Glaucoma Patients on Glaucoma	Finalising Protocol
Kenneth Adjah	Ghana	Masters	Compliance among Glaucoma patients in Ghana	Finalising Protocol
Clement Afari	Ghana	Masters	Contribution of refractive errors to visual impairment in Ashanti region, Ghana	Finalising Protocol
Emmanuel Nartey	Ghana	Masters	Ocular morbidities among primary school children in Ashaiman Municipal, Greater Accra Region, Ghana	Finalising Protocol
Dinesh Kaphle	Malawi	Masters	Impact of visual impairment from refractive error on quality of life in adults of Malawi	Registers ration Finalised
Geoffrey Wabulembo	Uganda	PhD	Developing a human resource strategy for Uganda for Eye Health	UKZN Application Pending
Samuel Kusi	Ghana	Masters	Ocular Health And Safety Assessment Of Cocoa Farmers In Ghana	
Emilenne Epee	Cameroon	PhD	Impact of refractive error on school children	Waiting For Returned Application Form
Veli Sukati		Masters		Data Collection
Christopher Onunkwor	Nigeria	PhD	Cost effectiveness of screening for diabetic retinopathy	No Supervisors

Emmanuel Okenwa	Nigeria / Kenya	PhD	Prevalence of Childhood Visual Impairment And Barriers to the Uptake of Refractive Error and Low Vision Services among School-Aged Children of Kakamega County, West Kenya	Completing UKZN Application Form
Saif Alrasheed	Sudan	PhD	Visual impairment due to uncorrected refractive error in (South Darfur State	UKZN Application Pending

### **Research Grants/ Scholarships**

The following students have been awarded the Sightsavers Research Grants/ Scholarships.

<b>Title of Research</b>	<b>Name of Student</b>	<b>Degree</b>	<b>Country</b>
Compliance among Glaucoma patients in Ghana	Kenneth Adjah	Masters	<b>Ghana</b>
Developing a Human Resource Strategy for Eye Health in Uganda	Dr Geoffrey Wabulembo	PhD	<b>Uganda</b>
Contribution of Refractive Errors to Visual Impairment in Ashanti Region, Ghana	Clement Afari	Masters	<b>Ghana</b>
Assessment of eye health status of school aged children in relation to school health services. A Case Study of Cross River State, Nigeria.	Bernadine Ekpenyong	PhD	<b>Nigeria</b>

## **6. Publications**

<b>Year</b>	<b>Author &amp; Title</b>
2013	J Jaggernath, D Haslam, and KS Naidoo. Climate change: Impact of increased ultraviolet radiation and water changes on eye health. <i>Health</i> , 2013. 5(5);921-930.
2013	VF Chan, Mebrahtu G, Ramson P, Wepo M, and Naidoo KS Prevalence of Refractive Error and Spectacle Coverage in Zoba Ma'ekel Eritrea: A Rapid Assessment of Refractive Error. <i>Ophthalmic Epidemiology</i> , 2013. 20(3); 131-137.
2013	KS Naidoo and P Govender. Global Vision: Part 3 – Demands of ageing population. <i>Optician</i> , 2013, 16-22.
2013	New Systematic Review Methodology for Visual Impairment and Blindness for the 2010 Global Burden of Disease Study. <i>Ophthalmic Epidemiology</i> , 20(1): 33–39.

- 2012 Theo Vos *et al.* Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. *The Lancet*. 2012 380:2163-2196.
- 2012 Christopher J L Murray *et al.* Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. *The Lancet*. 2012 380:2197-2223.
- 2012 Hugh R Taylor, Jost B Jonas, Jill Keeffe, Janet Leasher, Kovin Naidoo, Konrad Pesudovs, Serge Resnikoff. Disability weights for vision disorders in Global Burden of Disease study. Correspondence: *The Lancet*. 2012 381:23.
- 2012 Fricke TR, Holden BA, Wilson DA, Schlenker G, Naidoo KS, Resnikoff S and Frick KD. Global cost of correcting vision impairment from uncorrected refractive error. *Bulletin of the World Health Organisation*. 2012 90:728-738.
- 2012 Naidoo KS and Jaggernath J. Uncorrected refractive error. *Indian Journal of Ophthalmology*. 2012 60(5):432-437.
- 2012 He M, Abdou A, Naidoo KS, Sapkota YD, Thulasiraj RD, Varma R, Zhao J, Ellwein LB. Prevalence and correction of near vision impairment at seven sites in China, India, Nepal, Niger, South Africa, and the United States. *American Journal of Ophthalmology*. 2012 154(1):107-116.
- 2012 Loughman J, Scanlon G, Nolan JM, Dwyer VO and Beatty S. An evaluation of a novel instrument for measuring macular pigment optical density: the MPS 9000. *Acta Ophthalmol*. 2012; 90: e90–e97.

## 7. Website

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The AVRI website ([www.avri.co.za](http://www.avri.co.za)) has been upgraded and is being regularly improved. This website is used as a mode of transmission of all research activities conducted by AVRI. The website aims to transmit all relevant information to the African eye care community.

## 8. African Vision Research Network (AVREN)

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AVRI has set up a research network, which will create research links to provide support to research teams to communicate and coordinate their eye health research efforts across disciplines, organizations, institutions and geographical boundaries. Proposed networking activities will focus on specific eye health research niches, such as Diabetic Retinopathy, Refractive Error, and Primary Eye Care to give coherence to the collaboration. Networking, where possible, will be encouraged to include Sightsavers country teams.

The development of AVREN formed part of the funding received from Sightsavers and is facilitated through the AVRI website. A section on the AVRI website was dedicated to AVREN in order to offer a forum for an exchange of ideas, resources and skills. The intension was to expand this network to all African institutes.

The design of the network has thus far been commissioned by AVRI and the network is currently active but is still being worked upon. Letters introducing AVREN have been sent out to most Research organisations, institutions, academics, schools of optometry, etc.



## ***9. African Journal***

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AVRI has recently negotiated with the SA Optometrist journal to register an African Journal. The journal will be registered under the following name: "African Vision Optometry and Ophthalmology". AVRI retains the right to operate under the same name if there is dissolution of the MOU with the SA Optometrist. The MOU has been signed this July.