

## Advocacy Issues/Public Health

Chairperson: D Singh

### An Overview of the Masters in Public Health for Eye Care at the London School of Hygiene and Tropical Medicine

*D Murray*  
*The University of the West Indies,*  
*St Augustine, Trinidad and Tobago, West Indies*

Internationally, a public health approach has become increasingly recognized as most likely to impact blindness rates. VISION 2020: The Right to Sight is a global initiative to eliminate avoidable blindness by the year 2020. Its mission is to reduce the prevalence of preventable or curable blindness and low vision. In the Caribbean, a five-year regional action plan (2014–2019) prioritizes cataract, glaucoma, diabetic retinopathy, refractive error, retinopathy of prematurity and low vision, rehabilitative and educational services. A description of the content, delivery and relevance of a public health degree programme for eye care is presented. Universal and equitable eye care through the proposal, development and implementation of national and regional blindness prevention policies is discussed.

The London School of Hygiene and Tropical Medicine (LSHTM) is recognized globally as a world-leader in research and postgraduate education in public health. Selected modules from the LSHTM Master's degree in Public Health for Eye Care (MPHEC) are described and relevance to the Caribbean region presented. Core subjects taught include epidemiology, statistics for public health and policy and health economics. Health policy, process and power is an optional module. A public health research project is mandatory and counts towards 30% of the grade for the MPHEC.

Whether “free at the point of delivery” or “access by need; payment by means”, public health for eye care has the potential to deliver truly universal and equitable eye care in the Caribbean and positively transform the region. Public health for eye care should be included in all ophthalmic training programmes and young ophthalmologists should be encouraged to pursue public health as a specialty.

### An Analysis of the Retinopathy of Prematurity Cases Presenting at a Major Public Hospital in Trinidad and Tobago 2013–2014

*J Ramkissoon, H Bhagwandass, A Armoogum, R Bhola, N Udit, A Tewari, S Sohanpal*  
*San Fernando General Hospital, San Fernando, Trinidad and Tobago, West Indies*

**Objective:** To detect any retinopathy of prematurity for infants screened with birthweight less than 1501 g and/or period of gestation less than 32 weeks and determine the adequate modes of treatment.

**Method:** A case notes analysis was done of infants screened for retinopathy of prematurity at a tertiary health institution in southern Trinidad from January 2013 to December 2014. Information collected included birthweight, period of gestation, staging of retinopathy of prematurity and modes of treatment.

**Result:** Sixty-seven infants were screened for retinopathy of prematurity. There were six cases of retinopathy of prematurity, of which five cases were less than 1100 g birthweight and all six were less than 29 weeks period of gestation. Three cases met the threshold criteria for treatment and were referred to vitreoretinal surgery. Two cases stabilized with anti-vascular endothelial growth factor and argon laser pan retinal photocoagulation, while one developed bilateral retinal detachment and was referred for vitreolensectomy abroad. Two cases that did not meet the treatment criteria resolved spontaneously, while one case had longstanding stage 5 retinopathy of prematurity and was referred from another institution that performed no screening.

**Conclusion:** Low birthweight and low period of gestation are high risk factors for retinopathy of prematurity. The results suggest that effective screening can detect treatable retinopathy of prematurity. Retinopathy of prematurity that is treated with anti-vascular endothelial growth factor and argon laser pan retinal photocoagulation can prevent blindness, despite the challenges of treatment in the public service. A national screening service is needed and can be set up using the San Fernando General Hospital model and experience.

## Pioneering Diabetic Retinopathy Screening in Trinidad and Tobago: 'The Early Years'

S Sooknanan<sup>1</sup>, R Ramoutar<sup>1</sup>, N Udit<sup>1</sup>, \*R Bholal<sup>1, 2</sup>,  
D Owens<sup>3</sup>, N Persad<sup>1, 4</sup>, N Munroe<sup>1, 5</sup>, LA Lazarus<sup>1, 5</sup>,  
K Ali<sup>1, 5</sup>, S Rampersad<sup>1, 5</sup>, L Paponette<sup>1, 5</sup>,  
V Ramkumarsingh<sup>1, 5</sup>, D Sookoo<sup>1</sup>, S Gopeesingh<sup>1</sup>,  
A Maharaj<sup>1</sup>, V Charia<sup>1</sup>

<sup>1</sup>San Fernando General Hospital, South-West Regional Health Authority, Trinidad and Tobago, <sup>2</sup>Caribbean Vitreous and Retina Surgery Ltd, St Augustine, Trinidad and Tobago, <sup>3</sup>Cardiff and Swansea University, Wales, United Kingdom, <sup>4</sup>Countess of Chester Hospital, NHS Trust, Chester, United Kingdom, <sup>5</sup>Diabetic Retinopathy Screening Service in Trinidad and Tobago

**Objective:** To illustrate the progression of diabetic retinopathy screening service in Trinidad and Tobago (DRSSTT) and provide preliminary results of a pilot study.

**Method:** This was a cross-sectional analysis of the DRSSTT.

**Results:** The idea was born in 2005 by John Hopkins International (JHI), which proposed it to the Ministry of Health in Trinidad and Tobago. It was not until 2013, however, that a pilot study was initiated and the South-West Regional Health Authority put together a team consisting of a manager, three photographers and three graders, representing the birth of the DRSSTT. John Hopkins International brought in the services of Professor David R Owens (Cardiff and Swansea University, Wales, United Kingdom) and his team to train the local staff and develop a programme of photographic screening and grading in Trinidad and Tobago utilizing the Wales National Diabetic Retinopathy Screening System. After training, the six-month pilot study was commenced in November 2013 during which 517 patients were randomly chosen from the diabetic register with 2% having Type 1 diabetes and 98% having Type 2 diabetes. Two hundred and fifty (48%) had diabetes for more than 10 years. Two hundred and thirty-six (45.6%) had to be referred to see an eye specialist. One hundred and seventy-four (74%) needed a routine referral, 15% needed soon referral and 11% needed urgent referrals. Sixty-four patients (27%) were referred for sight-threatening diabetic eye disease. Utilizing these data, a proposal for a national screening programme was submitted and accepted by the Ministry of Health and plans are currently ongoing to have this important programme rolled out nationwide in Trinidad and Tobago over the next four years.

**Conclusion:** Our experiences to date serves as an excellent platform for the further development and implementation of the screening programme in Trinidad and Tobago, thereby successfully progressing toward the World Health Organization's Vision 2020. It also serves as a road map for the development of regional screening programmes in the West Indies.

## The Surgical Productivity of Ophthalmologists in the English-speaking Caribbean: Results from a Region-wide Pilot Survey

AF Smith<sup>1, 2</sup>, A Klotz<sup>1</sup>, N Barker<sup>3</sup>, JC Silva<sup>4</sup>, J McLeod-Omawale<sup>5</sup>

<sup>1</sup>MedMetrics Inc., Ottawa, Canada, <sup>2</sup>Department of Ophthalmology, King's College London, England, <sup>3</sup>Ophthalmological Society of the West Indies, Barbados, West Indies, <sup>4</sup>Blindness Prevention, PAHO, Bogota, Columbia, <sup>5</sup>Orbis, New York, New York, USA

**Purpose:** To date, little published data exist on the surgical productivity of ophthalmologists in the English-speaking Caribbean, particularly for cataract and glaucoma surgery. Such data are helpful in terms of planning eye care delivery and training initiatives now and in the future across the entire region. The goal of this research was to provide pilot baseline data to assess the current state of surgical productivity amongst ophthalmologists in the region.

**Methods:** Both national and regional ophthalmological societies across the English-speaking Caribbean were scanned to provide a total sample frame for the survey. In total, 171 practising ophthalmologists or ophthalmology residents were contacted across 11 predominantly English-speaking Caribbean nations. A total of 49 completed surveys were available for analysis, representing a response rate of 29%.

**Results:** On average, ophthalmologists across the region worked 42.71 hours per week, with 59%, 38% and 2% of these hours spent in private, public and non-governmental organization (NGO) sectors, respectively. Of the 33 respondents who performed cataract surgery, the average number of operations performed per week was 3.4 in the public sector and 5.4 in the private sector. Among the 16 respondents who performed glaucoma surgery, the average number of glaucoma surgeries performed in the public sector was 0.7 per week, while in the private sector, the figure was 1.0 per week.

**Conclusions:** While our findings in absolute terms represent small numbers, they suggest a trend toward greater private sector surgical productivity. Exactly why this was the case remains unclear, however, better equipment and supplies in the private sector coupled with a more motivated ophthalmological workforce may partially explain these observations. Further research should be directed toward developing more accurate reporting mechanisms to capture the true rate of surgery in the public and private sectors as well as pursuing strategies to ensure better access by all ophthalmologists to equipment and supplies in the public sector.

## **The Guyana Diabetic Retinopathy Programme – Part One (Conception and Planning)**

*S Sugrim<sup>1</sup>, J McLeod Omawale<sup>2</sup>*

*<sup>1</sup>Georgetown Public Hospital Corporation, Georgetown, Guyana, <sup>2</sup>Orbis International, Latin America and Caribbean Region*

The Guyana Diabetic Retinopathy Screening and Treatment Programme will introduce screening, diagnosis and treatment in the public health system in Guyana. This is a three-year project that is one component of a larger World Diabetes Foundation approved Guyana Diabetes Care Project. At present, there is no comprehensive eye care for persons with diabetes in Guyana, despite annual eye examination being an indicator in non-communicable disease programme. The International Diabetes Federation estimates diabetes prevalence as 14.3% among persons 20–79 years. Currently, only one laser for diabetic retinopathy treatment is in the private sector; there are no vitreo-retinal specialists, nor vitreo-retinal surgical facilities in Guyana. The project strategies are: human resource development, infrastructure development including new equipment, public awareness and education, service delivery, monitoring, evaluation and research. This is part one of a three-part series on the project as it is conceptualized, implemented and evaluated for key lessons learned about the processes and results.

## **Current Data on Prevalence of Blindness. Coverage and Quality of Cataract Surgical Services in Seven Latin American Countries**

*JC Silva*

*Eye Care Regional Advisor*

*Pan American Health Organization*

**Objective:** To determine the prevalence of avoidable blindness and visual impairment in Argentina, El Salvador, Honduras, Panama, Peru, Uruguay and Paraguay; its causes; the coverage of cataract surgery; the barriers for access to services and the quality of cataract services.

**Method:** A standardized methodology used in the rapid assessment of avoidable blindness (RAAB) surveys was applied in all national population-based surveys conducted among people aged 50 years old and older to allow for comparison of results between countries. The results of the cross-sectional eye health survey conducted in seven countries were used to make a comparative assessment.

**Result:** Prevalence of blindness in people 50 years old and older varied from 0.7% in Argentina to 3.0% in Panama. Overall prevalence of visual impairment varied from 8.0% in Uruguay to 14.3% in El Salvador. The main reported cause of blindness was un-operated cataract followed by glaucoma. Most cases of visual impairment were caused by uncorrected refractive error. The three southern countries had cataract surgical coverage for blindness of more than 90% for blind persons. In Central America, it was as low as 63.0%. Two-thirds of cataract-operated patients had good visual acuity and 16% had a poor visual acuity outcome.

**Conclusion:** Prevalence of blindness and visual impairment varies between countries. The southern countries are reaching good levels of cataract surgical services coverage and quality outcomes. The Central American countries need to strengthen the eye care services to meet the population needs.