

## Population Health in the Caribbean

Chairperson: *JC Silva*

### Methodology

*D Singh*

NO ABSTRACT

### The National Eye Survey of Trinidad and Tobago: Prevalence and Causes of Blindness and Vision Impairment

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**Aim:** Only one nationally representative study of vision loss has been conducted in the Caribbean in the past 20 years. The current study aimed to estimate the prevalence and causes of blindness and vision impairment in people aged > 40 years in Trinidad and Tobago.

**Method:** A population-based nationally representative cross-sectional survey, using randomized multistage cluster sampling with probability-proportionate-to-size methods, identified 120 clusters each of 35 people. Participants had a basic vision assessment in their community and were invited to clinic for comprehensive examination. The clinic assessment included standardized interview with collection of socio-economic, demographic and quality of life data. A detailed examination included measurement of anthropometric indices, fasting blood glucose, presenting and best-corrected visual acuity (LogMAR), subjective refraction, corneal topography, ocular biometry, corneal hysteresis, tonometry, slit-lamp biomicroscopy, fundus

photography and ocular coherence tomography imaging of the anterior and posterior segments. Selected participants also had gonioscopic examination, visual field tests, low vision assessment, assessment of the impact of low vision on daily functioning, and measurement of glycosylated haemoglobin. Individuals with presenting visual acuity worse than 6/18 who were unable to attend the clinic were visited at home by the doctor to determine the attributable cause of vision loss. Imaging data were independently validated by the Moorfields Reading Centre.

**Results:** Of 4200 people selected, visual acuity was measured in 3657 (87.1%). The age and gender-standardized prevalence of functional blindness (presenting visual acuity worse than 6/60 in the better eye) was 1.39% (95% CI 1.01, 1.77), and of blindness at 3/60 was 0.80% (95% CI 0.51, 1.09%). The age and gender-standardized prevalence of moderate and severe vision impairment (presenting acuity worse than 6/18 but better than or equal to 3/60 in the better seeing eye) was 5.57% (95% CI 4.83, 6.31%). The age and gender-standardized prevalence of best-corrected blindness was 0.77% (0.49, 1.05%). Glaucoma and cataract were the leading causes of presenting blindness (32% and 29%, respectively), followed by diabetic retinopathy (13%). Uncorrected refractive error was the leading cause of moderate and severe vision impairment (46%).

**Conclusion:** Strategies to make good quality, affordable and accessible cataract, refractive error, glaucoma and diabetic retinopathy screening services available in Trinidad and Tobago would impact the burden of avoidable vision loss.

### Quality of Life and Vision Impairment in Trinidad and Tobago

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NO ABSTRACT

## **Situational Analysis**

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*NO ABSTRACT*