

Health system dynamics analysis of eye care services in Trinidad & Tobago and progress towards Vision 2020 Goals

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Introduction

- The Vision 2020 strategy to reduce avoidable blindness was launched in the Caribbean, and in Trinidad and Tobago, in 2000¹
- This study aimed to comprehensively review the eye care system in Trinidad and Tobago in 2014 at the time of the National Eye Survey,² to assess progress towards the Vision 2020 objectives

Methods

- We administered structured surveys to 7 stakeholder groups including all ophthalmologists, optometrists, public health centers, and public hospital eye department administrators in Trinidad and Tobago, plus samples of eye clinic out-patients, general practitioners and a population-representative sample of the general population aged ≥ 40 years (National Eye Survey of Trinidad and Tobago participants).² We also reviewed reports, registers and policy documents. We synthesized data using the Health System Dynamics Framework³

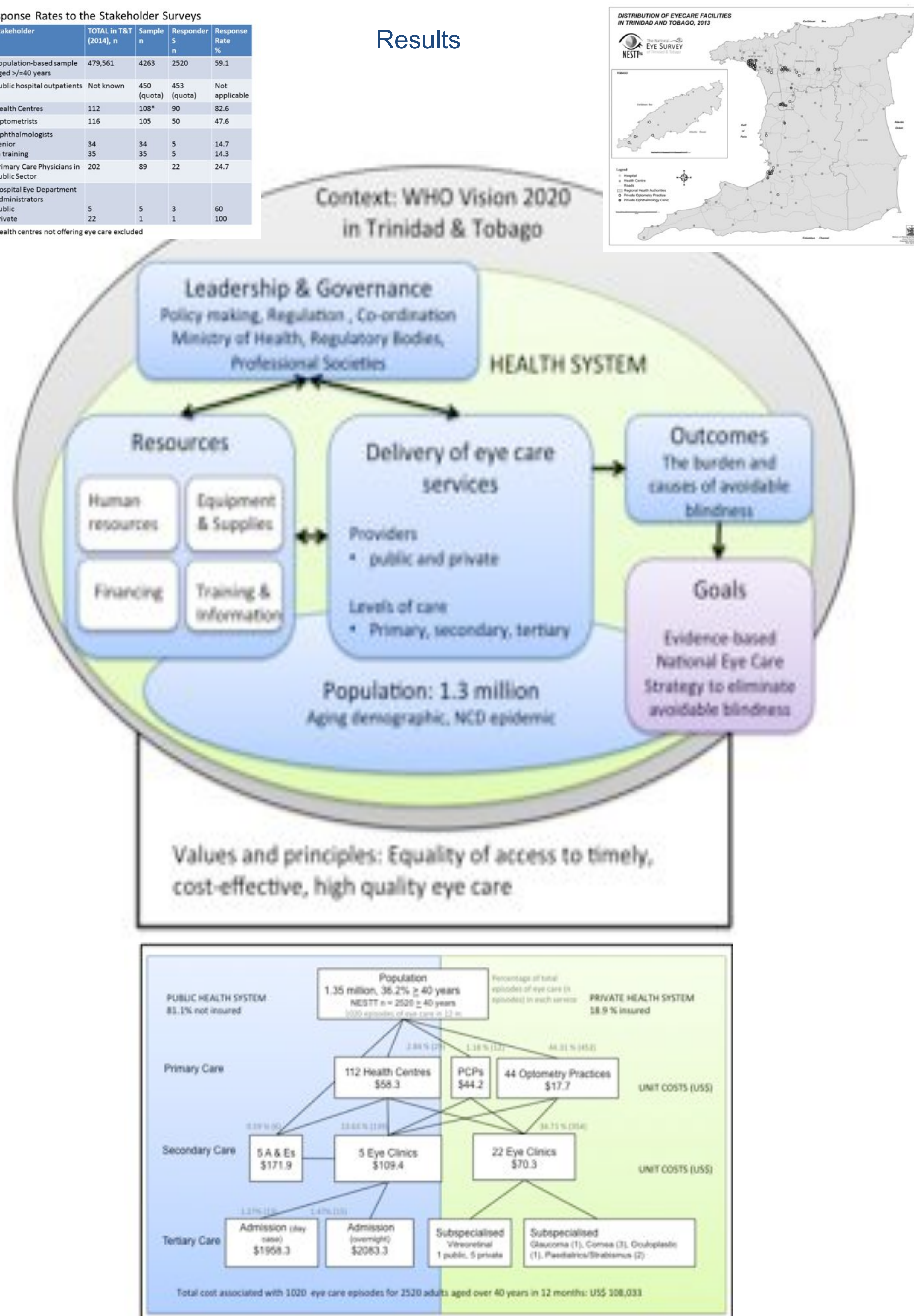
Results

- Response rates in each group are shown in the Table
- Leadership & Governance:** There was no Eye Health Committee or National Coordinator within the Ministry of Health
- Values and Principles:** Eye health was incorporated into wider socioeconomic policies but there was no national plan for inclusive education for the blind
- Delivery of Eye Care Services:** There was a low vision service and the cataract surgical rate exceeded target level of 3000 per 1 million population. However, there was no diabetic retinopathy screening/treatment program, no neonatal eye examination, no ROP screening program or national prevention policy, and insufficient human resource capacity for blinding pediatric conditions
- Human Resources:** Minimum ratios per 50,000 population were achieved: ophthalmologists (1.2), ophthalmologists-in-training (1.3), optometrists (4.4), dispensing opticians (2.0). No in-country lab technicians to service ophthalmic equipment
- Equipment and Supplies:** Access to free glaucoma medication through regional procurement and distribution. However, no integration of an active primary eye care service into primary health care system. No spectacle lab in country. Only 3/5 public eye hospital departments had a visual field analyzer, 1/5 had access to FFA, and none had OCT.

Group	Stakeholder	TOTAL in T&T (2014), n	Sample n	Response n	Response Rate %
User	Population-based sample aged ≥ 40 years	479,561	4263	2520	59.1
	Public hospital outpatients	Not known	450 (quota)	453 (quota)	Not applicable
Provider	Health Centres	112	108*	90	82.6
	Optometrists	116	105	50	47.6
	Ophthalmologists Senior	34	34	5	14.7
	In training	35	35	5	14.3
	Primary Care Physicians in Public Sector	202	89	22	24.7
	Hospital Eye Department Administrators	5	5	3	60
	Public	22	1	1	100
	Private				

*4 district health centres not offering eye care excluded

Results



- Financing:** Trinidad and Tobago is a high income nation but only 4.8% of GDP spent on healthcare. Approximately 9.5% spent on eye care. Pluralistic eye care system with universal, free basic eye care and private sector provision of more specialized services. 18.9% of population have health insurance, and approximately 63.7% pay out-of-pocket for private eye care.
- Training and public education:** Trinidad has a BSc Optometry degree program, but no formal postgraduate training/examination system for ophthalmologists. The Ministry of Health and Professional Societies for Ophthalmologists and Optometrists contribute to World Sight Day activities, Glaucoma Awareness Programs and other education activities for the public relating to eye health.
- Outcomes:** The National Eye Survey of Trinidad and Tobago 2013-2014 identified that amongst adults over 40 years, 0.7% were blind and 5.4% had moderate or severe vision impairment. The leading causes were glaucoma, cataract and diabetic retinopathy. 65% of blindness was potentially avoidable
- Goals:** There was a national school vision screening program, but no public sector optometry services. The Ministry of Health aimed to develop an evidence-based national eye care strategy

Conclusions

- 15 out of 29 (52%) of the PAHO Vision 2020 Objectives for the Caribbean had been achieved in Trinidad and Tobago in 2014
- There is still much work to be done but there has been substantial progress over the past 5 years with the recent completion of a National Eye Survey
- Key priorities to address the current burden of avoidable vision loss include a diabetic retinopathy screening/treatment programme, initiatives to reduce cataract surgery waiting time, access to affordable spectacles, and investment in key equipment for public hospital eye departments (Visual field analyzers and FFA imaging devices)

Key References

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Funding: Ministry of Health of The Republic of Trinidad and Tobago; Fight for Sight UK (Grant 1339/40); Anglia Ruskin University UK
Conflicts of interest: Nil to declare
Acknowledgements: We are most grateful for technical support and generous sponsorship from Medilex LLC. We also thank Precision Vision Ltd and Core Distribution Ltd for their sponsorship. We would like to thank Dr Neville Verlander for statistical support in preparing this poster