

## Overarching issues in eye care - Sri Lanka

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## Introduction

- Sri Lanka is a small Island of 62,000 sq. km. holding a population of 20.2 Million people.
- Gender 

Female : Male	50.2 : 49.8
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- Population growth 1.1%
- Ethnic 

Sinhala	78%
Tamils	14%
Muslims	8.5%
- Literacy 92.5%
- Life Expectancy at birth 

Females	75.4 years
Males	70.7 years
- Primary School 99.5%
- Secondary School 87.2%
- Tertiary School 15-16%

### Causes of visual impairment in Sri Lanka

- 0 - 4 years
  - Hereditary
  - Retinopathy of prematurity
  - Congenitally Acquired Rubella
  - Delayed 2nd stage of labour
- 5 - 15 years
  - Uncorrected refractive error - 72% to 90% M/MA (Myopia / Myopic Astigmatism)
- 16 - 40 years
  - Hardly any
  - Uveitis
  - Ocular trauma - Traffic War Industry

### Causes of Visual Impairment (Contd.)

- 40 - 54 years
  - Primary open angle glaucoma
  - Diabetic Retinopathy
  - Other vascular retinopathies - BVO, CRVO
- 55 +
  - Cataract
  - Glaucoma
  - Diabetic Retinopathy
  - Macular Degeneration

### **Children below 16 years - 25.7% (approx. 5million)**

- Prevalence of blindness 4/10,000 as such 2,000 (U5MR - 14/1000). This excludes refractive errors.
- CAR - hardly exists
- Vitamin A deficiency & PCM hardly exists
- Consanguineous marriage causing visual impairment is still not eradicated.
- Live birth 325,000 per year
- Approx. 9% low birth weight. As such prevalence of ROP should be high.(75% regress)

### Refractive errors in children

- 72 - 90% of refractive errors are due to Myopia /Myopic astigmatism
- As such detection is easy
- School Health inspection - Yrs. 1, 4, 7
- Centres for refraction and correction are highly accessible.

**However a pair of spectacles cost US\$ 20 - 25**

## Visual Impairment - Age 40+

- Approx. 6 Million population ie. 33% of total population
- Presbyopic spectacles cost US\$ 1/- US\$ 30/-
- Primary Open Angled Glaucoma - 300,000
- Diabetes Mellitus - 900,000
- Hypertension - 900,000
- Treatment per month (POAG) US\$ 20/-
- Laser - Diabetic Retinopathy US \$ 30/-

## Cataract

- Visual impairment due to cataracts occur around 62.5 years.
- Total number of **eyes** needing cataract surgery is 318,000 (6/60 taken as a cut off point)
- 65,000 cataract extractions are done per year with intra-ocular lens implantation in all eyes.

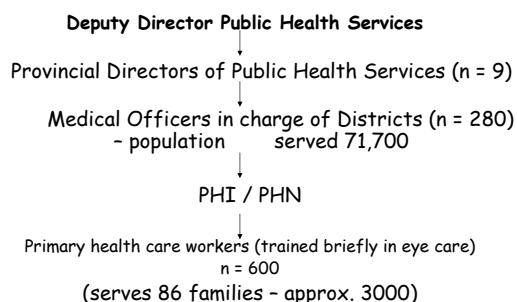
## Health Budget for 2009 - 58.1 Billion 7.2% of total budget

- Preventive and curative health care & education are totally free.
- All hospitals (except a few private hospitals) are funded and run by the Ministry of Health. Health care, surgery, in-ward stay and drugs are free. All immunization programmes are totally free.
- **Intra-ocular lenses are not provided by the Ministry of Health.**

## Ophthalmic Health Manpower (Curative)

- Ophthalmic Surgeons 51 in the government sector
- Population 20.2 Million as such one per 400,000
- Ophthalmic Units in the non governmental sector -  
Two Lions Eye Hospitals (small)  
Several Private Hospitals
- Optometrists & Opticians 116
- Trainees 176
- Ophthalmic Technologists 150
- Trained Orthoptists 3
- Low Vision Ophthalmic Technologists 3

## Community Health Care Service



## Eye Units in Sri Lanka



## Accessibility to the Ophthalmic Centres

The Units manned by a fully qualified Ophthalmic Surgeon are distributed fairly well throughout the island.

<u>Province</u>	<u>District</u>	<u>Population</u>	<u>Ophthalmologist</u>
• Western	Colombo Gampaha Kalutara	5,707,000	22
• Central	Kandy Matale Nuwara Eliya	2,599,000	6
• Southern	Galle Matara Hambantota	2,477,000	4
			<b>Contd.</b>

<u>Province</u>	<u>District</u>	<u>Population</u>	<u>Ophthalmologist</u>
Wayamba	Kurunegala Puttalam	2,275,000	5
Eastern	Batticaloa Trincomalee Ampara	1,493,000	4
Northern	Jaffna Mannar Kilinochchi Mulativu Vavuniya	1,159,000	2
North Central	Anuradhapura Polonnaruwa	1,196,000	2
Sabaragamuwa	Ratnapura Kegalle	1,870,000	3
Uva	Badulla Moneragala	1,275,000	3

### Political will and Government support

- Health Budget for 2009 58.6 Billion  
7.2% of total Budget for 2009.
- Government backed Vision 2020 programme is established.
- (Childhood Blindness, Refractive errors, Diabetes, Glaucoma, Cataract, Low Vision)

#### Non Governmental Organizations helping in Eye Care delivery

- CBM International
- International Resources for the Improvement of Sight (IRIS)
- Sight Savers (UK)
- Sri Lanka Eye Foundation
- Lions Club
- Rotary Club
- International Centre for Eye Care Education
- Eye Care Foundation
- However the major funding and work (>90%) is through the Public Health Sector. (Ministry of Health)

### Plus Points

- The Education Ministry as well as other organizations provide custom built spectacles for under privileged children.
- PMMA intra ocular lenses are available free for those who undergo ECCE.
- Ophthalmic units manned by fully qualified surgeons are available within 50km from any home. Roads are navigable and a good public road transport service exists.
- \* This does not apply to the war zone.
- No patient needing emergency eye care is turned away.
- However some "busy" units have a one to six month waiting list for cataract surgery. (shorter than in the UK)
- Donor tissue is available in plenty (Eye Bank)
- EPI immunizes children and mothers against seven childhood diseases. Childhood Tb, Diphtheria, Tetanus, Pertussis, Polio, Measles, Rubella

Appears to be a very rosy picture

### Draw backs

- 325,000 live births
- Approx. 30,000 low birth weight babies
- **Laser treatment centres: - only one.**  
(Paediatric Ophthalmic Unit)
- **Reason:** Lack of laser delivery systems through Binocular Indirect Ophthalmoscope
- Inadequate supply of free spectacles for under privileged children - (cost US\$ 20.00 - 30.00)
- Inadequate supply of spectacles to presbyopes
- Cost US\$ 1.00 (Off the counter) - US\$ 30.00
- Non-availability of free foldable intra-ocular lenses (cost US\$ 50.00 - US\$ 200.00)

## Draw Backs - Contd

- Primary open angle glaucoma treatment costs approx. US\$ 20.00 per month. As such patients abscond treatment

Field test	cost US\$ 6/-
OCT	cost US\$ 25/-

- Treatment of diabetic Retinopathy  
Only ten Laser treatment centres are available

•However 900,000 presently suffer from Diabetes Mellitus (Maturity Onset Type)

•Vitreous Retinal Surgery  
Just two centres in the Ministry Hospitals.

**A Minimum** of 200,000 IDP  
have no access to an  
Ophthalmic service.

Thank You