Organized by World Glaucoma Association
The Global Glaucoma Network

worldglaucomacongress.org

Childhood Glaucoma Research Network: Pediatric Preventable Blindness Initiative: The West Indies, a Model of Early Vision Screening for the World

7.30 – 8.30 AM

11th WORLD GLAUCOMA CONGRESS®
JUNE 25 -28, 2025 HONOLULU, HAWAII, USA

PEDIATRIC PREVENTABLE BLINDNESS INITIATIVE

THE WEST INDIES MODEL: EARLY VISION SCREENING FOR THE WORLD

CHILDHOOD GLAUCOMA RESEARCH NETWORK

PPB
PEDIATRIC PREVENTABLE BLINDNESS

SYMPOSIUM

JUNE 28, 2025

DISCLOSURES

Royalty Payments

- Surgical Management of Childhood Glaucoma: Clinical Considerations and Techniques, Springer International

Ownership Interest

- Virtual Vision Health

HOW DID WE GET HERE, this morning...

CHILDHOOD GLAUCOMA RESEARCH NETWORK

balkan international pediatric glaucoma center

Global Eye SITE
Support. Innovation. Teamwork. Education

PPB PEDIATRIC PREVENTABLE BLINDNESS

VACCINATION

- 90% vaccination rate
- 41 vaccination clinics
- "Opt-out"
- 6 opportunities to see children within the first 5yrs of life

2mos 4mos 6mos 12mos 18mos Y4-Y5

Pan American Health Organization
World Health Organization Americas

EPI Country Report

Suriname, 2020

Immunization Schedule

	Doses					
SUR	**1**	**2**	**3**	**4**	**5**	**6**
BCG						
HepB pediatric	B					
DTP-Hib						
DTP-Hib-HepB	M2	M4	M6			
DTP-Hib-IPV						
DTP-Hib-HepB-IPV						
DTP				M18	Y4-Y5	
Influenza pediatric						
IPV	M2					
OPV		M4	M6	M18	Y4-Y5	
MMR	M12	M18				
Pneumoco conjugate						
Rotavirus						
Td	1st contact	+M6	+Y1			
TdaP						
HPV	Y9-Y13	+M6				

SURINAME FINDINGS

Over the course of five days, a team of two project managers visited 4 clinics in Paramaribo and screened 208 children (2% of Suriname's infant pop.)

Start to finish (informational video, consent for care and screening) added less than 4 minutes to the well child vaccine visit.

REFERRAL DATA

- Median Age 12mo (IQR 6-36)
- 12.4% referral amblyogenic risk factors
- 25 total, all with refractive error
- Median time for photo screener 8sec (IQR 5-14)
- Median time added per visit 4min (IQR 2.5-6)

CHALLENGE

WHERE ARE WE GOING

WHERE WE CAME FROM

WHY WE CAN’T STAY THERE

HOW WILL WE GET THERE?

THANK YOU

This project is made possible by the shared vision, support and contributions of many individuals and generous donors

In-Country Directors & Regional Coordinators
Public Health and Policy Advisors & Investigative Studies Mentors
Volunteers

Amarone Charitable Trust
James Annenberg La Vea (w. Jill Genson) Charitable Foundation
Samuel & Ethel Balkan International Pediatric Glaucoma Center
Butzow Family Foundation
The A&S Leslie Family Trust
Theofanis & Wendy Kolokotrones
Verdun Foundation
A very special anonymous donor

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JUNE 28, 2025

PPB INITIATIVE
THE WEST INDIES MODEL: EARLY VISION SCREENING FOR THE WORLD

WE DON'T HAVE A PROBLEM

Lizette Mowatt

MB;BS (UWI), MMedSci, FRCS (ED), FRCOphth
Professor of Ophthalmology,
The University of the West Indies, Mona Campus, Jamaica
DM Ophthalmology Residency Programme Co-ordinator (UWI)
Head, Ophthalmic Division, The University Hospital of the West Indies (UHWI)
Consultant Vitreoretinal Surgeon

DISCLOSURES

NO RELEVANT FINANCIAL DISCLOSURES

GLOBAL FIGURES ON EYE HEALTH[1]

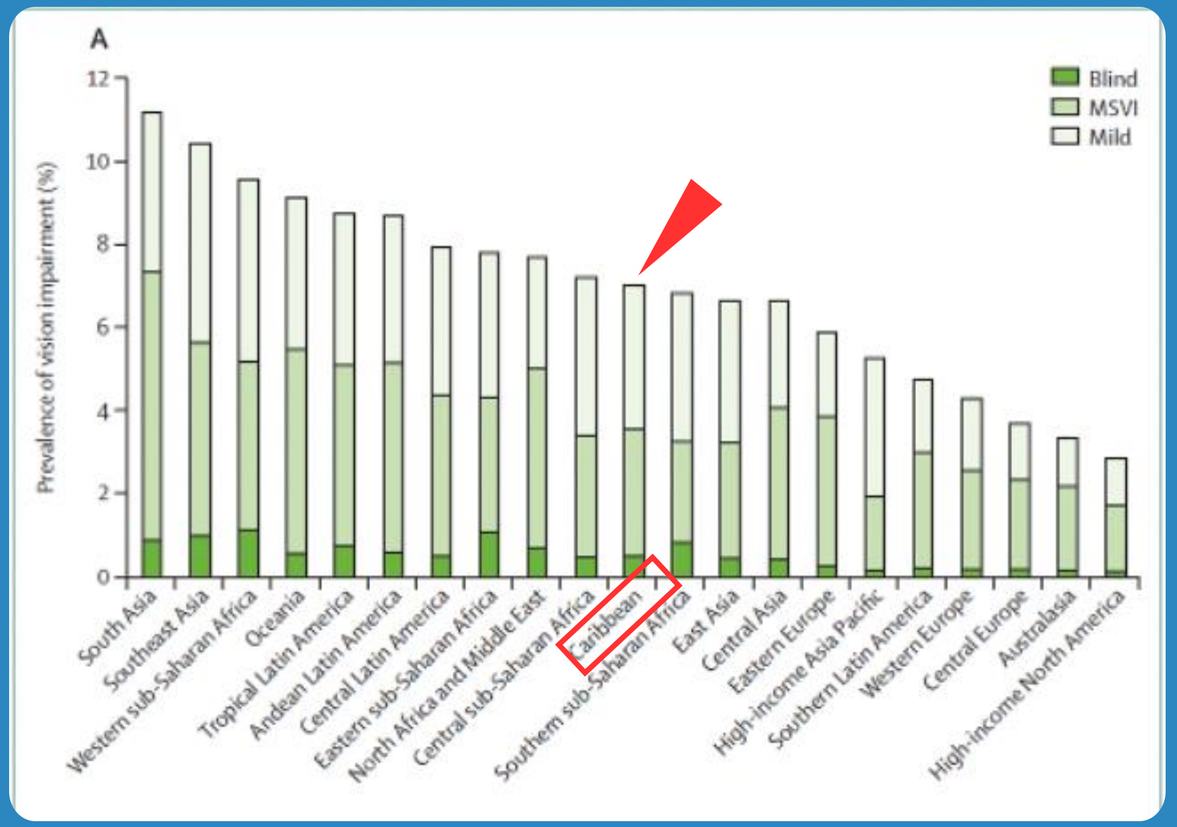
~ 2.2B people have visual impairment (VI)[2]
~ 1B have preventable VI

MOST PREVENTABLE
- Low-Middle Income Countries (LMIC)
- Rural & Remote Areas

BLIND[2]
- Visual Acuity (VA) > 3/60 in the better eye
- ~ 43 million are blind
- Prevalence 0.55%

MODERATE OR SEVERE VI (MSVI)
- VA > 6.18 to 3.60 in the better eye
- ~295M have MSVI
- Prevalence 3.74%

Age standardized prevalence of VI[3]



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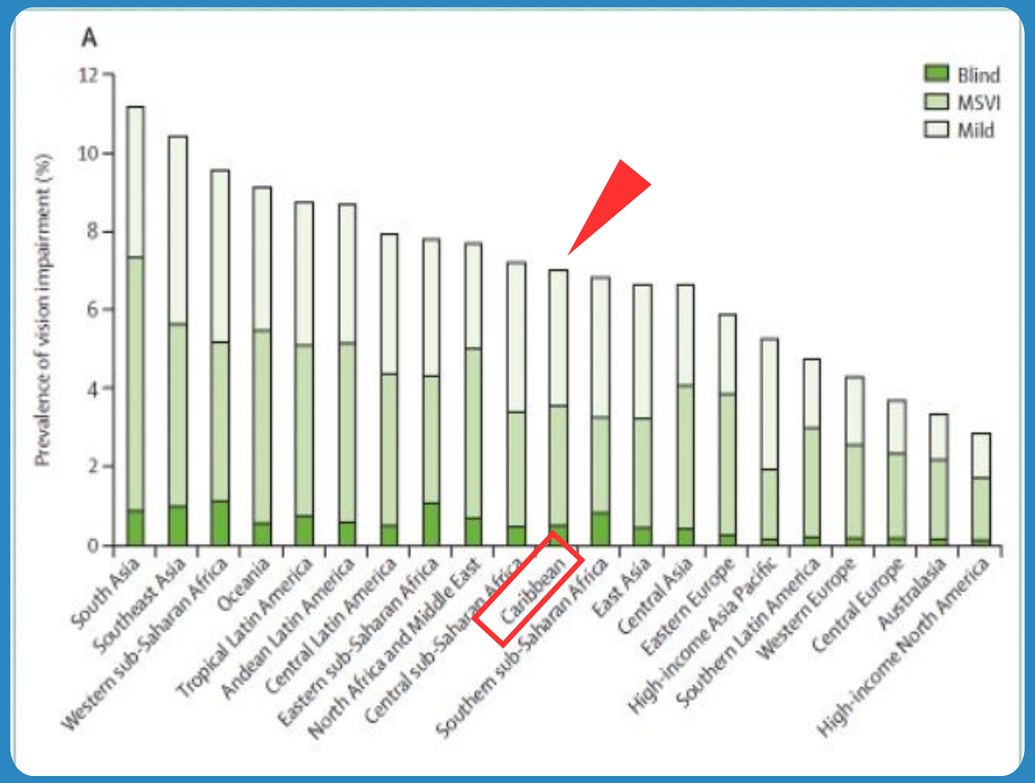
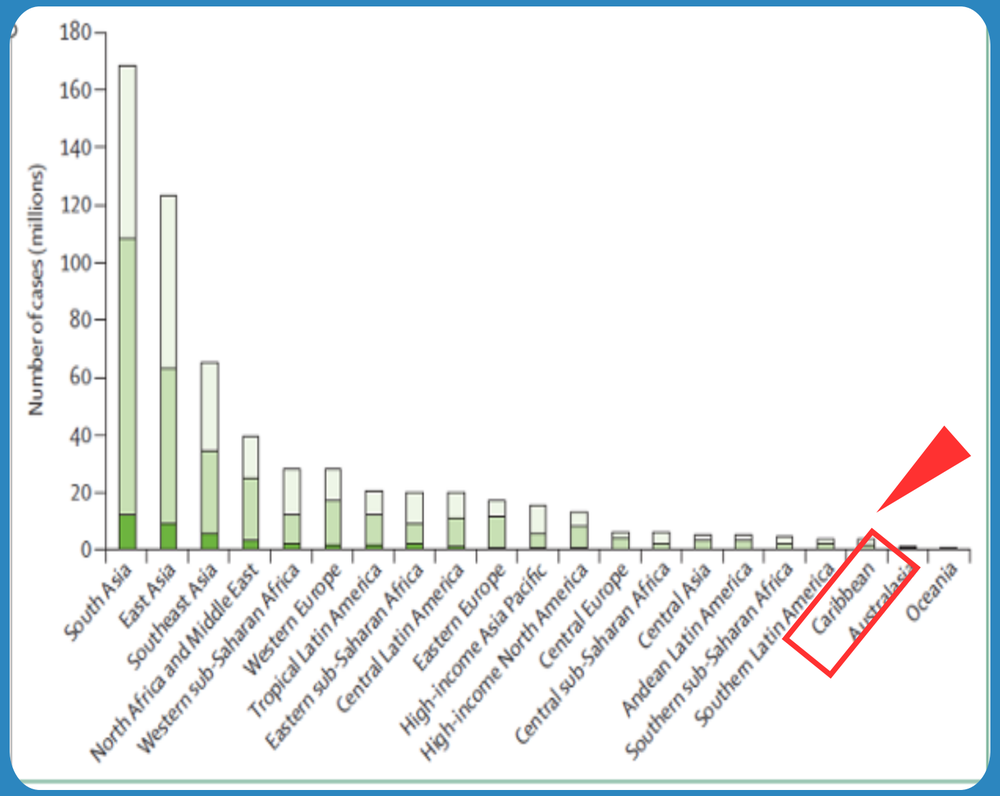


Number of people with VI[3]



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CAUSES OF CHILDHOOD BLINDNESS

Americas & The West Indies, as reported by schools for the blind[1]

Regional variations

Socioeconomic status · Capacity to provide care

Low-income regions

Vitamin A deficiency · Measles · Keratitis

Middle-income regions

Cataract · Retinopathy of Prematurity (ROP) +60%[2]

High-income regions

Uncorrected refractive error · Amblyopia

				Four most frequent causes of blindness and severe visual impairment					
Country	Year	Location	No	Category 1	%	Category 2	%	Category 3	%
Argentina[7]	1993	School for the blind	573	ROP	35	Other retina	16	Optic nerve	10
Bolivia[8]	1988	School for the blind	78	Cornea	23	Retina	23	Cataract	21
Brazil[9]	1998	School for the blind		Glaucoma	15	Cataract	14	Chorioretinitis	13
Chile[7]	1992	10 schools for the blind	267	Other retina	29	ROP	18	Optic nerve	13
Colombia[10]	1991–6	Three schools for the blind*	94	ROP	11	–	–	–	–
Cuba[10]	1991–6	All school for the blind 2 regions*	70	ROP	39	–	–	–	–
Dominican Republic[7]	1992	School for the blind	51	Cataract	31	Cornea	18	Glaucoma	18
Equador[10]	1991–6	All school for the blind*	142	ROP	14	–	–	–	–
Guatemala[10]	1991–6	All school for the blind*	73	ROP	4	–	–	–	–
Jamaica[11]	1986	School for the blind	108	Cataract	39	Optic nerve	18	Glaucoma	15
Paraguay[10]	1991–6	All school for the blind*	36	ROP	33	–	–	–	–
Peru[12]	1990	School for the blind	202	Cornea	18	Glaucoma	12	Cataract	12
Uruguay[7]	1986	School for the blind	220	Cataract	25	Other retina	24	Optic nerve	12
USA[13]	1981–95	Low vision clinic	762	Cortical visual impairment	8	ROP	8	Optic atrophy	7
USA[14]	1996–7	Alabama school for the blind	123	Optic atrophy	13	Cataract	13	Albinism	13
USA[15]	1998	20 schools for the blind	2553	Cortical	19	ROP	13	Optic nerve	7
USA[16]	1998	School for visually impaired	62	ROP	19	Optic atrophy	19	Retinitis pigmentosa	15

1.B Muñoz, SK West. Blindness and visual impairment in the Americas and Caribbean. Br J Ophthalmol 2002 May;86(5):498–504.

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Common Causes of Blindness		
Corneal Opacities > 20%	**ROP > 33%***	**Cataracts > 30%**
• Bolivia • Dominican Rep • Peru	• Argentina • Cuba • Paraguay • *ROP in USA 8-19%	• Jamaica (1986) • Dominican Rep (1992)

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BLINDNESS IN CHILDREN

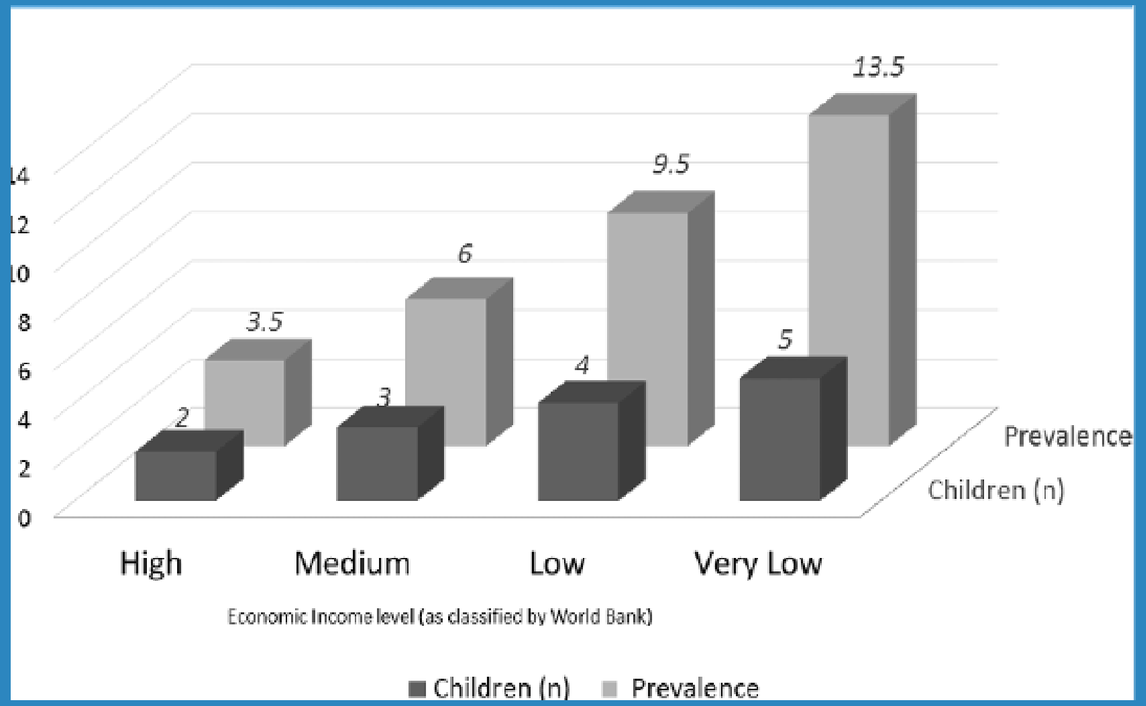
ESTIMATES OF PREVALENCE RANGE FROM:

0.3/1,000 in developed countries
to
1.5/1,000 in developing countries[2]

Globally 1.4M live with blindness in the poorest regions of Africa and Asia[1]

Conditions that cause blindness (measles, prematurity, Vitamin A deficiency) are closely linked with child mortality

GLOBALLY BY ECONOMIC REGION



Solebo AL, Teoh L, Rahi J. Epidemiology of blindness in children. Arch Dis Child. 2017 Sep;102(9):853-857. (Derived from Rahi and Gilbert)

Very poor regions = 1.2-1.5/1,000
vs.
Affluent regions = 0.3-0.4/1,000

1.Gilbert C, Foster A. Childhood blindness in the context of VISION 2020—the right to sight. Bull World Health Organ 2001;79:227–32. Control of blindness is closely linked to child survival
2.World Health Organization. Preventing blindness in children. Report of a WHO/IAPB scientific meeting. Geneva, Switzerland: WHO, 2000;PBL/00.71

MAGNITUDE OF BLINDNESS IN CHILDREN

Estimates age 0-15yrs as a function of < 5yrs mortality (1999)[1]

REALITY (underestimates)

- Data from Schools for the Blind
- Selection and survival bias
- Children with multiple disabilities

HOW DO YOU ESTIMATE THIS?

Table 1 Magnitude of blindness in children age 0–15, estimated as a function of under 5 years mortality (1999)

Region	Mortality for children under 5 years/1000 live births	Estimated prevalence of blindness/1000	Countries	Estimated population under 15 years (in millions)	Estimated number of blind
North America	30 and under	0.3	Canada, USA	67.0	20 100
Central America	30 and under	0.3	Costa Rica, Panama	2.1	630
	31–94	0.6	Belize, El Salvador, Guatemala, Honduras, Mexico, Nicaragua	44.7	26 820
South America	30 and under	0.3	Argentina, Chile, Colombia, Paraguay, Uruguay, Venezuela	38.7	11 610
	31–94	0.6	Bolivia, Brazil, Ecuador, Guyana, Peru	62.8	37 680
Caribbean	30 and under	0.3	Aruba, Bahamas, Barbados, Cayman Island, Cuba, Dominica, Grenada, Jamaica, Netherlands Antilles, Puerto Rico, St Kitts Nevis, St Lucia, St Vincent, Trinidad Tobago, Virgin Islands	5.1	1530
	31–94	0.6	Dominican Republic	2.7	1620
	95–170	0.9	Haiti	3.0	2700
Total		0.45	All countries	226.1	102 690

WHO statement *"key for research to have a standard methodology for reporting childhood blindness on 2 criteria" -*

ANATOMICAL SITE OF ABNORMALITY • UNDERLYING AETIOLOGY

1.B Muñoz, SK West. Blindness and visual impairment in the Americas and Caribbean. Br J Ophthalmol 2002 May;86(5):498–504.

IMPACT OF VISUAL IMPAIRMENT FOR CHILDREN

EMOTIONAL

SOCIAL

FAMILY (caregiver)

EDUCATION

QUALITY ADJUSTED YEARS OF LIFE

PHYSICAL INDEPENDENCE

ECONOMIC INDEPENDENCE

BARRIERS

CARE

- Availability
- Accessibility (rural vs. urban)
  - Refraction/glasses
- Staffing limitations
- Costs of services
- Socioeconomic
- Cultural
- Governmental policies
- Public & Private Funding

LITERATURE

- Paucity of data on childhood VI, especially in The West Indies
- Causes & prevalence of childhood VI and blindness have changed
- Chronic vs. Acute disorders

WORLD HEALTH ASSEMBLY

- Eye care should be integrated into Universal Health Coverage
- Key Eye Health Indicators are effective coverage for:
  - Refractive Error
  - Cataract Surgery
- Develop evidence-based & cost-effective interventions

CAUSES OF PEDIATRIC VI & BLINDNESS

3 EXAMPLES IN THE WEST INDIES

FINDINGS

JAMAICA[1]

Table 1 *Causes of blindness in 108 Jamaican children aged 5–15 years*

Causes	*Cases n (%)*	*Mechanism*
Cataract	=42 (39)	20 Rubella; 14 hereditary; 8 ? cause
Optic nerve atrophy	=19 (18)	6 Hereditary; 5 hydrocephalus; 2 Meningitis; 2 colobomata; 2 trauma; 1 Down's, 1 craniostenosis
Glaucoma	=16 (15)	10 ? Cause; 4 rubella; 2 aniridia
Retina	= 9 (8)	7 Retinitis pigmentosa; 2 retinoblastoma
Myopia	= 7 (6)	5 Hereditary; 2 spontaneous
Uveitis	= 5 (5)	4 Toxoplasmosis; 1 sarcoid
Cornea	= 5 (5)	3 Dystrophy; 2 interstitial keratitis
Maculopathy	= 2 (2)	2 Hypoplasia
Nanophthalmos	= 1 (1)	
Marfan's syndrome	= 1 (1)	
Peters' anomaly	= 1 (1)	
Total	108	

Population 2.9M
Upper Middle Income
Jamaica School for the blind
108 children (VA < 6/60)
Congenital Rubella Syndrome

SURINAME[2, 3, 4]

Table 4 Avoidable causes of SVI/BL in 65 children with SVI/BL attending the school for the blind and derived from the SEC

Causes	N	Per cent
Avoidable	26	40.0
Preventable	5	7.7
Corneal scar from VAD	2	3.1
Congenital rubella	1	1.5
Trauma	1	1.5
Harmful traditional practices	1	1.5
Treatable	21	32.3
Cataract	10	15.4
ROP	8	12.3
Glaucoma/buphthalmos	3	4.6
Unavoidable	39	60.0

BL, blindness; ROP, retinopathy of prematurity; SEC, Suriname Eye Centre; SVI, severe visual impairment; VAD, vitamin A deficiency.

Population 520,000
Upper Middle Income
Louis Braille School for the Blind
65 children SVI/BL (4-15yrs) 38/65 were blind 35% hereditary or perinatal 40% avoidable 32.3% treatable
Aetiology undetermined in 56.9% (Birth defects - anophthalmos, buphthalmos and cataract) Congenital rubella single intrauterine factor 1.5% (prevalence 0.6/1,000)[2,3]

BARBADOS[5]

Table 3. Severity of visual impairment and distribution by age group among Barbadian children.

WHO Category for Visual Impairment	Number of Children (n)	Percentage (%)
Mild	62	77.5
Moderate	16	20.0
Severe	0	0
Blindness	2	2.5
Total	80	100.0

Population 287,000
High Income
Severity of VI & distribution by age5
Of 3,278 children 2.4% had VI 94% treatable
87.5% refractive error 62.5% amblyopia (leading cause of VI)

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2.Heijthuijsen AAM, et al. Causes of severe visual impairment and blindness in children in the Republic of Suriname. BJO 2013;97:812-815.
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PPB PEDIATRIC BLINDNESS PREVENTABLE

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Avoidable	26	40.0
Preventable	5	7.7
Corneal scar from VAD	2	3.1
Congenital rubella	1	1.5
Trauma	1	1.5
Harmful traditional practices	1	1.5
Treatable	21	32.3
Cataract	10	15.4
ROP	8	12.3
Glaucoma/buphthalmos	3	4.6
Unavoidable	39	60.0

BL, blindness; ROP, retinopathy of prematurity; SEC, Suriname Eye Centre; SVI, severe visual impairment; VAD, vitamin A deficiency.

Population 520,000

Upper Middle Income

Louis Braille School for the Blind

65 children SVI/BL (4-15yrs)
38/65 were blind 35% hereditary or perinatal
40% avoidable 32.3% treatable

Aetiology undetermined in 56.9%
(Birth defects - anophthalmos, buphthalmos and cataract)
Congenital rubella single intrauterine factor 1.5% (prevalence 0.6/1,000)[2,3]

BARBADOS[5]

Table 3. Severity of visual impairment and distribution by age group among Barbadian children.

WHO Category for Visual Impairment	Number of Children (n)	Percentage (%)
Mild	62	77.5
Moderate	16	20.0
Severe	0	0
Blindness	2	2.5
Total	80	100.0

Population 287,000

High Income

Severity of VI & distribution by age 5

Of 3,278 children 2.4% had VI
94% treatable

87.5% refractive error
62.5% amblyopia (leading cause of VI)

1.BJ Moriarty. Childhood blindness in Jamaica. British Journal of Ophthalmology, 1998, 72, 65-67
2.Heijthuijsen AAM, et al. Causes of severe visual impairment and blindness in children in the Republic of Suriname. BJO 2013;97:812-815.
3.Gilbert C. Changing challenges in the control of blindness in children. Eye 2007;21:1338–43.
4.The World Bank. Suriname, population ages 0–14 (% of total). http://data. worldbank.org/indicator/SP.POP.0014.TO.ZS/countries/1W?display=default
5.Da Silva et al,. The Burden of Pediatric Visual Impairment and Ocular Diagnoses in Barbados. Int. J. Environ. Res. Public Health 2023, 20, 6554 (PPB initiative)

CONCLUSION

Each country has its specific health conditions that dominate

YES, WE DO !

Resources

Status of health care

Accessibility to care

Each country needs to have population study data to tailor their needs to prevent the causes of avoidable blindness

Once the data is known implement an early onset detection, prevention, and treatment model to reduce, or eradicate the causes of blindness

THANK YOU

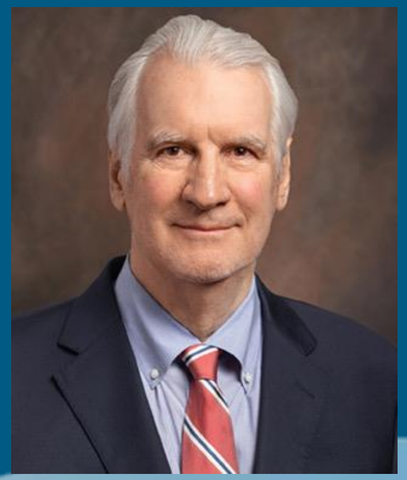
CHILDHOOD GLAUCOMA RESEARCH NETWORK

SYMPOSIUM
JUNE 28, 2025

PPB INITIATIVE

THE WEST INDIES MODEL: EARLY VISION SCREENING FOR THE WORLD

ECONOMICS OF EYE SCREENING: PAST SUCCESS AND FUTURE OPPORTUNITY



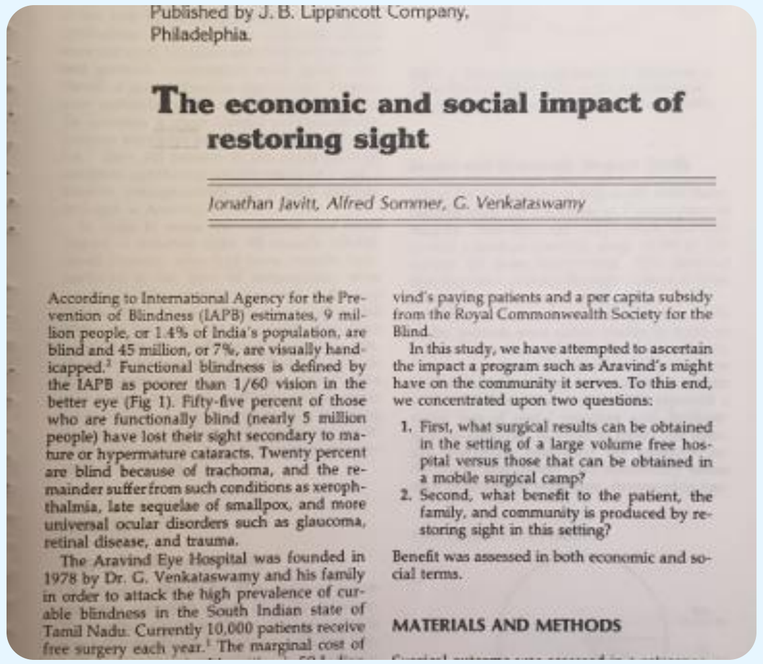
JAMES LAWRENCE

MBA

Director, AerCap Holdings NV
Chairman, Lake Harriet Capital
Past-Chairman & CEO, Rothschild North America
Past-Executive Director & CFO, Unilever
Past-Vice Chairman & CFO, General Mills
Past-President, Pepsi Cola Asia, Middle-East, Africa
Founder, Lawrence Evans Koch (LEK)
Founding Partner, Bain

DISCLOSURES

I have no relevant financial disclosures



Published by J. B. Lippincott Company, Philadelphia.

The economic and social impact of restoring sight

Jonathan Javitt, Alfred Sommer, G. Venkataswamy

According to International Agency for the Prevention of Blindness (IAPB) estimates, 9 million people, or 1.4% of India's population, are blind and 45 million, or 7%, are visually handicapped.[1] Functional blindness is defined by the IAPB as poorer than 1/60 vision in the better eye (Fig 1). Fifty-five percent of those who are functionally blind (nearly 5 million people) have lost their sight secondary to mature or hypermature cataracts. Twenty percent are blind because of trachoma, and the remainder suffer from such conditions as xerophthalmia, late sequelae of smallpox, and more universal ocular disorders such as glaucoma, retinal disease, and trauma.

The Aravind Eye Hospital was founded in 1978 by Dr. G. Venkataswamy and his family in order to attack the high prevalence of curable blindness in the South Indian state of Tamil Nadu. Currently 10,000 patients receive free surgery each year.[1] The marginal cost of vind's paying patients and a per capita subsidy from the Royal Commonwealth Society for the Blind.

In this study, we have attempted to ascertain the impact a program such as Aravind's might have on the community it serves. To this end, we concentrated upon two questions:

1. First, what surgical results can be obtained in the setting of a large volume free hospital versus those that can be obtained in a mobile surgical camp?
2. Second, what benefit to the patient, the family, and community is produced by restoring sight in this setting?

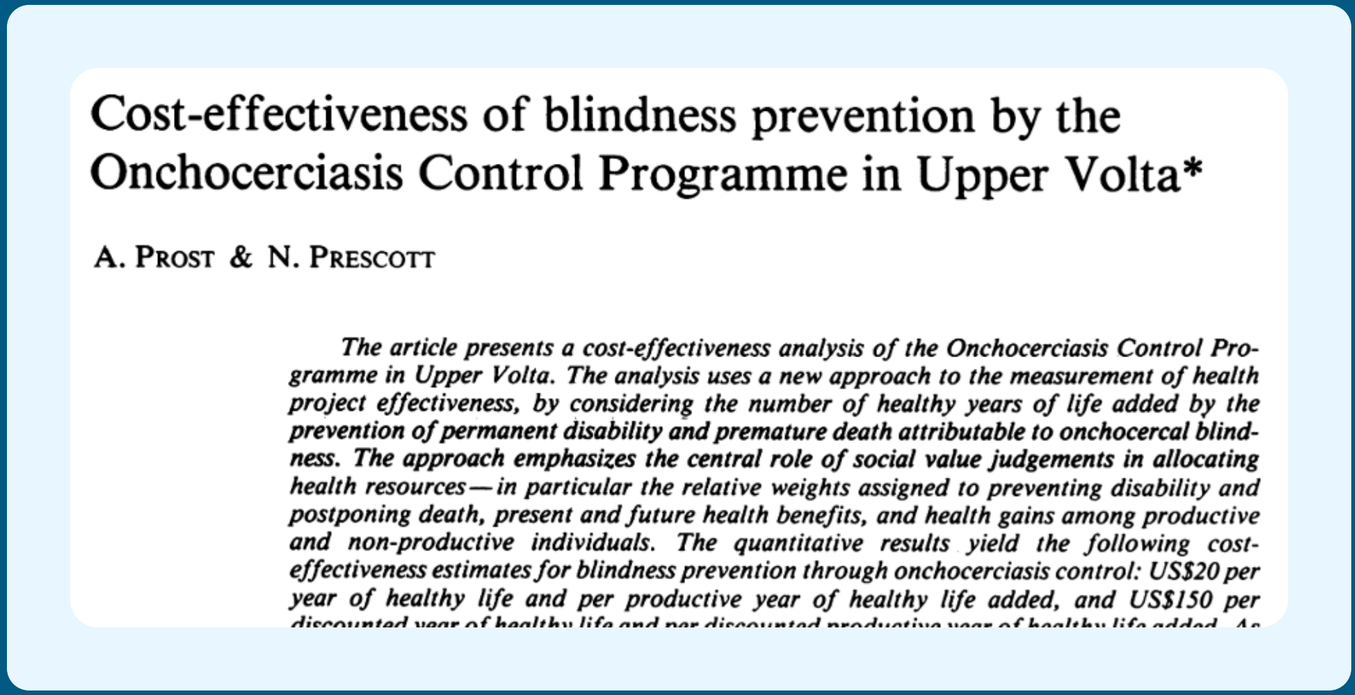
Benefit was assessed in both economic and social terms.

MATERIALS AND METHODS

1st DEMONSTRATION OF COST EFFECTIVENESS OF RESTORING SIGHT - 1983

Those who benefited from Aravind's free surgery program generated a 15x economic return in the first year after surgery

RIVER BLINDNESS



Cost-effectiveness of blindness prevention by the Onchocerciasis Control Programme in Upper Volta*

A. PROST & N. PRESCOTT

The article presents a cost-effectiveness analysis of the Onchocerciasis Control Programme in Upper Volta. The analysis uses a new approach to the measurement of health project effectiveness, by considering the number of healthy years of life added by the prevention of permanent disability and premature death attributable to onchocercal blindness. The approach emphasizes the central role of social value judgements in allocating health resources—in particular the relative weights assigned to preventing disability and postponing death, present and future health benefits, and health gains among productive and non-productive individuals. The quantitative results yield the following cost-effectiveness estimates for blindness prevention through onchocerciasis control: US$20 per year of healthy life and per productive year of healthy life added, and US$150 per

Quantitative results

- US$20 per year of healthy life and per productive year of healthy life added
- US$150 per discounted year of healthy life and per discounted productive year of healthy life added

RESTORATION OF SIGHT VIA CATARACT SURGERY COSTS < $5 PER DISCOUNTED HEALTHY YEAR OF LIFE (DHLY) SAVED

In 1993 the World Bank reviewed Sommer's work and determined that Vitamin A Supplementation in Children and Cataract Surgery in Adults were among the five most cost-effective treatments that could be offered in the Developing World

UNCORRECTED REFRACTIVE ERROR CAUSES REDUCED SCHOOL PERFORMANCE AND A LIFETIME OF ECONOMIC LOSSES

There were an estimated 158 million cases of distance vision impairment and 544 million cases of near vision impairment caused by uncorrected refractive error worldwide in 2007. The global cost of educating the additional personnel and of establishing, maintaining and operating the refractive care facilities needed was estimated to be around USD$ 20 million.

The estimated loss in global gross domestic product due to distance vision impairment caused by URE was US$ 202 000 million annually.

WHAT ABOUT PREVENTING A LIFETIME OF BLINDNESS?

Results. Appropriately timed screening for and treatment of ROP is predicted to result in a gain of 3899 to 4648 quality-adjusted-life-years and a net governmental budgetary savings of $38.3 to $64.9 million for each annual US birth cohort of 28 321 premature infants (500 through 1249 g). The cost per quality-adjusted-life-year gained is $2488 to $6045, depending on different screening strategies.

Conclusions. Of greatest importance is the finding that properly timed screening and treatment for ROP is not only cost saving but may save approximately 320 infants per year from a lifetime of blindness. *Pediatrics* 1993;91:859–866; *retinopathy of prematurity, cryotherapy, cost-effectiveness, Monte Carlo simulation.*

TABLE 6. Cost per QALY Gained for Selected Health Care Interventions*

Program	Cost/QALY, $
Biweekly screening and cryotherapy for ROP	3 623
Intravenous immune globulin therapy for chronic lymphocytic leukemia[25]	6 000 000
Chemotherapy for breast cancer for women aged 45[26]	15 400
Coronary artery bypass surgery for left main coronary artery disease[27]	5 100
Thyroxine (thyroid) screening[27]	7 650
Coronary bypass surgery for single-vessel disease with moderately severe angina[27]	44 400
School tuberculin testing program[27]	53 000
Hospital hemodialysis[27]	65 500
Liver transplant[27]	250 000

PEDIATRICS
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Article

Cost-Effectiveness of Screening and Cryotherapy for Threshold Retinopathy of Prematurity

Jonathan Javitt, Ronald Dei Cas and Yen-pin Chiang
Pediatrics May 1993, 91 (5) 859-866;

IMPLICTIONS FOR PEDIATRIC PREVENTABLE BLINDNESS (PPB)

If 0.6/1000 children have a blinding eye disease and can be detected, one has the potential to save 35 DHLYs over a 70 year life span, with present value of 14.56 DHLYs (assuming a 3% discount rate).

If cost of screening is $25/child, and treatment for a blinding eye disease costs $20,000, what is the cost-effectiveness at different likelihoods of successful treatment for bilateral blinding eye disease (if no other conditions are detected)?

COST EFFECTIVENESS OF TREATING CONGENITAL GLAUCOMA
(ESTIMATED)

- Success Rate: 90%
- Cost of Care $10,000
- DHLY per year of Sight = 0.5
- Expected years of benefit = 76 years
- Discount rate 3%

Result:
13.41 DHLYs are saved over a lifetime
Cost = $746 per DHLY to save the sight of a child

For comparison, adult cataract surgery costs approximately $2000 per DHLY.
Cancer treatments frequently cost $50,000 to $150,000 per DHLY.

CONCLUSION

- Prevention of Childhood Blindness is one of the most cost effective healthcare interventions generating actual societal savings, not just Incremental Cost Effectiveness (ICER)
- The Pediatric Preventable Blindness Initiative (PPBI) is a unique and extraordinary opportunity driven by a confluence of vision, technology, and philanthropy
- There is ample reason to believe that, properly framed and presented, the PPBI can demonstrate substantial and meaningful benefit to patients, payers, and society

THANK YOU

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JUNE 28, 2025

PPB INITIATIVE

THE WEST INDIES MODEL: EARLY VISION SCREENING FOR THE WORLD

MODELING THE WAY

MARY QIU
MD
Glaucoma Surgeon
Program Director, Glaucoma Fellowship
Cole Eye Institute, Cleveland Clinic, Ohio

Cleveland Clinic

JOINING ON THE PODIUM

Samantha Goldburg, MD

Glaucoma Fellow, Incoming
Cole Eye Institute, Cleveland Clinic, Ohio
Manhattan, Eye, Ear and Throat Hospital, Residency
UConn School of Medicine, Medical School

Dan Arreaza Kaufman, MD

Glaucoma Fellow, Outgoing
Cole Eye Institute, Cleveland Clinic, Ohio
Jamaica Hospital Medical Center, Residency
Ponteficial Xaverian University, Medical School

DISCLOSURES

MARY QIU

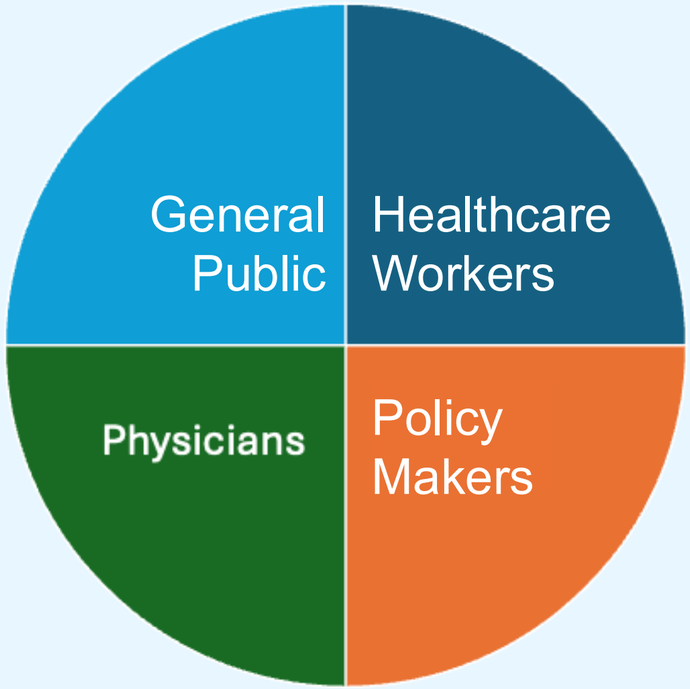
- Nova, Medical Advisory Board, Consultant
- LEP, Medical Advisory Board
- Gore, Consultant
- Iantrek, Consultant, compensation for surgical video,
- MST, compensation for surgical video
- PLU Ophthalmic, compensation for surgical video

DAN ARREAZA KAUFMAN NO RELEVANT FINANCIAL DISCLOSURES

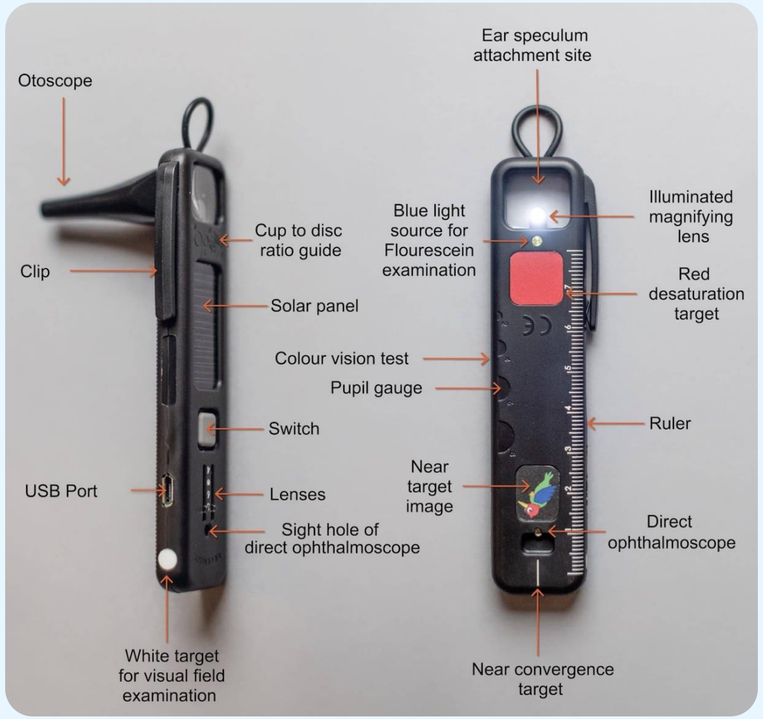
SAMANTHA GOLDBURG NO RELEVANT FINANCIAL DISCLOSURES

PPB Screening Animated Video

The importance of vision screening and what to expect during your child’s vaccine visit



EDUCATION AUDIENCE



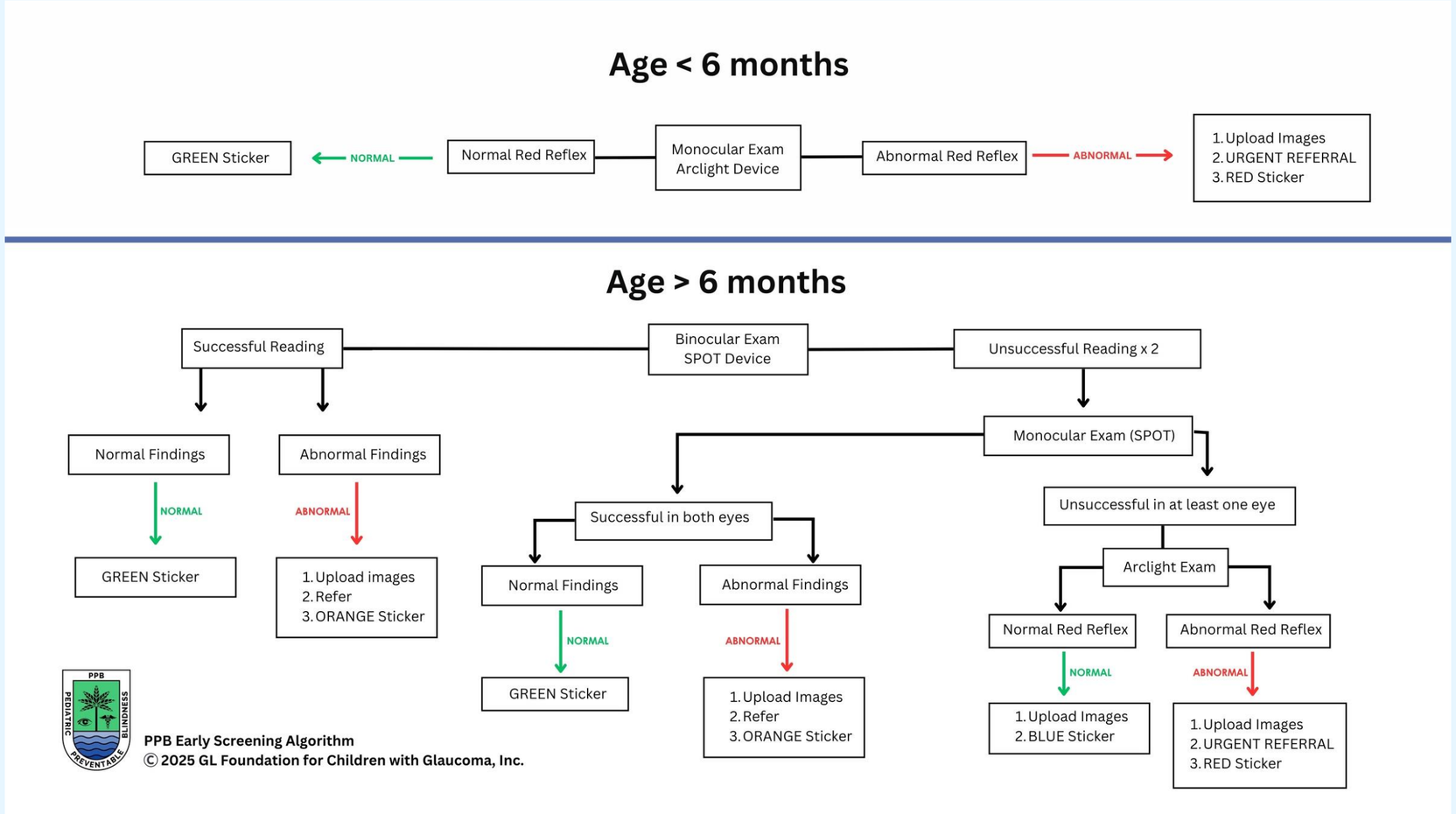
ARCLIGHT OPHTHALMOSCOPE

- Portable ophthalmoscope
- Connects to smartphone → cloud
- Examines red reflex & internal eye structures
- Enhance diagnostic skills
- Affordable, lightweight, durable

SPOT VISION SCREENER

- Auto-refraction & amblyogenic factors
- Connects → cloud
- Child friendly, non-threatening distance
- Programmed to AAPOS Screening Guidelines
- YES/NO results in seconds

REFERRAL ALGORITHM



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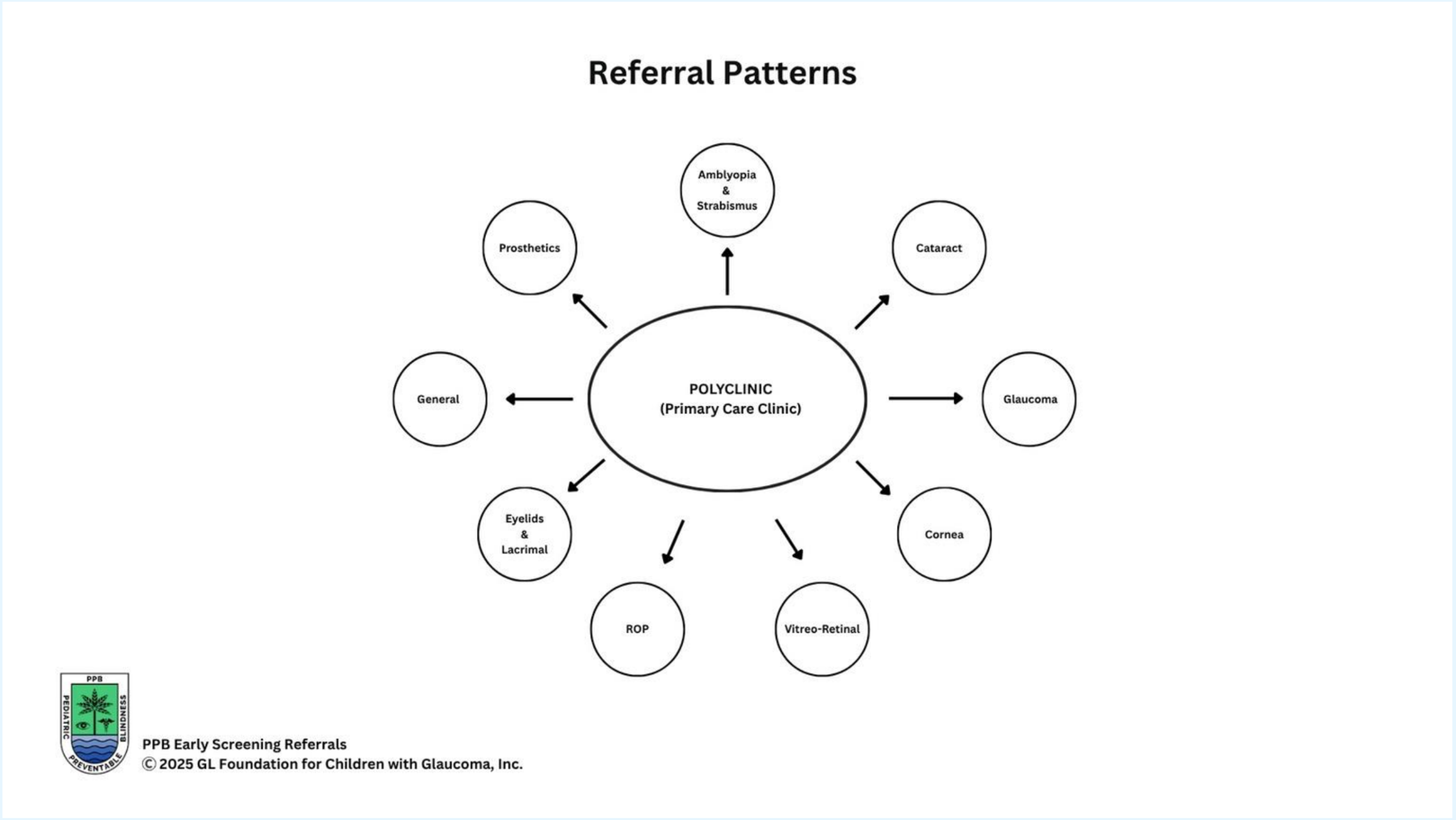

AUDIENCE

	GENERAL PUBLIC	HEALTHCARE WORKERS	PHYSICIANS & SCIENTISTS	POLICY MAKERS
GOAL	Create demand	Confident screening with minimal training	Needs based research and advocacy	Institutionalize model
TOOLS	Animated video, posters, vaccine-day reminders, Community KOL	Animated video, hands-on-demo, training & refreshers	Training on RedCap, research mentorship	Executive briefing, community success stories, economic studies
SUSTAINABILITY	Normalize public messaging and awareness campaigns	Local trainers, adaptable roles across system	Data informs policy & drives evolution of initiative	Advocating priority of eye health

THANK YOU

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JUNE 28, 2025

PPB INITIATIVE

THE WEST INDIES MODEL: EARLY VISION SCREENING FOR THE WORLD

THE ROAD AHEAD

MARY LAWRENCE

MD MPH

MEDICAL DIRECTOR OF GOVERNMENTAL AFFAIRS,
MINNESOTA ACADEMY OF EYE PHYSICIANS AND SURGEONS
AMERICAN MEDICAL ASSOCIATION, AMPAC BOARD MEMBER
MINNESOTA MEDICAL ASSOCIATION, MEDPAC BOARD MEMBER
FORMER DEPUTY EXECUTIVE DIRECTOR AND INTERIM DIRECTOR, VISION CENTER OF EXCELLENCE
DEPARTMENT OF DEFENSE/DEPARTMENT OF VETERANS AFFAIRS FORMER OPHTHALMOLOGY FACULTY AT HARVARD, YALE, UNIV OF MINNESOTA

DISCLOSURES

No relevant conflict of interest to disclose

HOW TO IMPLEMENT A SUSTAINING EVIDENCE-BASED PUBLIC HEALTH INITIATIVE?

WHO PRINCIPLES OF EARLY DISEASE DETECTION

Condition

- The condition should be an important health problem.
- There should be a recognisable latent or early symptomatic stage.
- The natural history of the condition, including development from latent to declared disease, should be adequately understood.

Test

- There should be a suitable test or examination.
- The test should be acceptable to the population.

Treatment

- There should be an accepted treatment for patients with recognised disease.

Screening Program

- There should be an agreed policy on whom to treat as patients.
- Facilities for diagnosis and treatment should be available.
- The cost of case-findings (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole.
- Case-findings should be a continuing process and not a ‘once and for all’ project.

Wilson JMG and Jungner G, 1968. Principles and practice of screening for disease. Public Health Paper No 34. Geneva: WHO

WHAT PUBLIC HEALTH CHAMPIONS HOPE FOR

Health & Well-being of People

Decisions based on Scientific Evidence

Long Term Impact to a Community

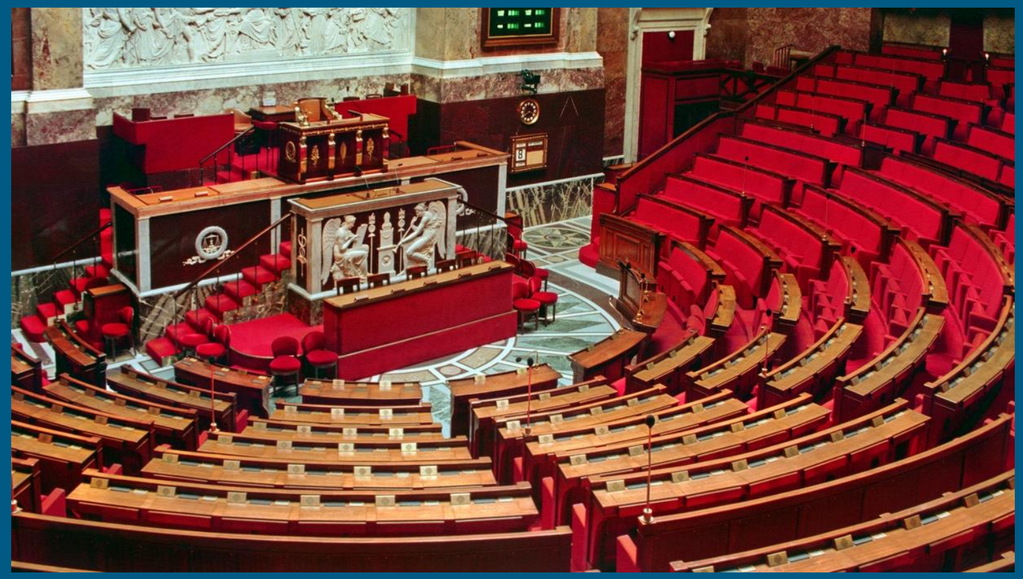
Screening, Barbados

The Burden of Pediatric Visual Impairment (VI) and Ocular Diagnoses in Barbados

K. Da Silva, M. Dowell, EJ Savatovsky, D. Grosvenor, D. Callender, MH Campbell, I. Hambleton, EA Vanner, AL Grajewski and TC Chang,

Maurice Byer Polyclinic, Barbados

REALITY



Nearly all public health activity derives from authority and funding delivered through political decision-making

WHAT GOVERNMENT LEADERS VALUE

Economic Impact

Health & Well-being of Citizens

Relationships

Idealogical/ Religious Factors

Timeline (immediacy of their term)

Business Interests

Personal Salience

Clear to understand

Self-preservation (specific health related threats to the regime)

EVIDENCE-BASED HEALTHCARE DECISION MAKING

Jacobs JA, Jones E, Gabella BA, Spring B, Brownson RC. Tools for Implementing an Evidence-Based Approach in Public Health Practice. Prev Chronic Dis 2012;9:110324.

WORKING TOGETHER

- Sustained and constructive
- Health is key determinant of economic vitality
- Effects on “health industry”
- Reduction of healthcare costs and improved health outcomes

Hunter EL. Politics and Public Health-Engaging the Third Rail. J Public Health Manag Pract. 2016 Sep-Oct;22(5):436-41.

SUGGESTIONS FOR EFFECTIVE ENGAGEMENT

- Recognize and be sensitive to political factors
- Adopt advocacy strategies that leverage or neutralize policital factors
- Build coalitions with influencers including businesses, religious leaders, others
- Be non-partisan
- Present data fairly (don’t over-promise or exaggerate)
- Keep it simple
- Use stories
- Choose battles wisely
- Choose messengers even more wisely
- Find shared goals
- Be willing to compromise

SIGHTLESS AMONG MIRACLES

R.T. Wallen, 1995

The base of the statue reads:

For hundreds of years, a child leading a blind elder has been the fate of families stricken with river blindness (onchocerciasis) in Africa and Latin America. Now the demise of this ancient scourge is in sight, thanks to a drug donated by Merck and Company and distributed to millions of people by the Carter Center, the River Blindness Foundation, and others.

Donated by John and Rebecca Moores

There are three identical sculptures:
CARTER CENTER GARDENS Atlanta, GA,
MERCK & CO HEADQUARTERS Rahway, NJ
WHO HEADQUARTERS Geneva, Switzerland

THANK YOU

2025 EVENTS

CGRN

Pediatric Glaucoma @ WGC2025
4 Courses ▪ 6 Presentations ▪ 1 Symposium

Annual Meeting & Breakfast
Lab 128A: Mastering Childhood Glaucoma Surgical Techniques 12th Anniv
Lec 128: Mastering Childhood Glaucoma Surgical Techniques

PROJECTS

Pediatric Glaucoma Rubrics (OSCAR)

Kolokotrones Lecture Series:
Building a genetics clinic when you are not a geneticist

MEMBERSHIP IS FREE AND OPEN TO ALL

CGRN is an international network of nearly 450 physicians & scientists in more than 50 nations on a mission to promote research, improve treatment outcomes, and change the lives of children with glaucoma

Collaboration ▪ Advocacy ▪ Education
childhoodglaucoma.com