

Public Health Ophthalmology

จักษุสาธารณสุข

2023

ศาสตราจารย์เกียรติคุณ พญ. สมสงวน อัมฤคกุล

ภาควิชาจักษุวิทยา

ศูนย์เลสิก ศูนย์ความเป็นเลิศทางการแพทย์

คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่

เกณฑ์มาตรฐานผู้ประกอบการวิชาชีพเวชกรรม 2555

ส่วนที่ 3 ค. หมวดสุขภาพและการสร้างเสริมสุขภาพ

- ผู้ประกอบวิชาชีพเวชกรรมพึงต้องมีความรู้ความเข้าใจเกี่ยวกับการสร้างเสริมสุขภาพ และระบบบริการสุขภาพทั้งระดับบุคคล ชุมชน และประชาชน รวมทั้งกฎหมายและข้อบังคับที่เกี่ยวข้องกับการสร้างเสริมสุขภาพ มีทักษะในการสื่อสารระหว่างกลุ่มต่างๆ เรื่องสุขภาพและบูรณาการความรู้ด้านสร้างเสริมสุขภาพ โดยคำนึงสภาพแวดล้อมและบริบทแวดล้อม เกิดความตระหนักรู้ และมีจิตสำนึกเรื่องสุขภาพ และการเพิ่มศักยภาพในการดูแลตนเองของประชาชน ให้มีคุณภาพชีวิตที่ดี สามารถเป็นต้นแบบในเรื่องสร้างเสริมสุขภาพ

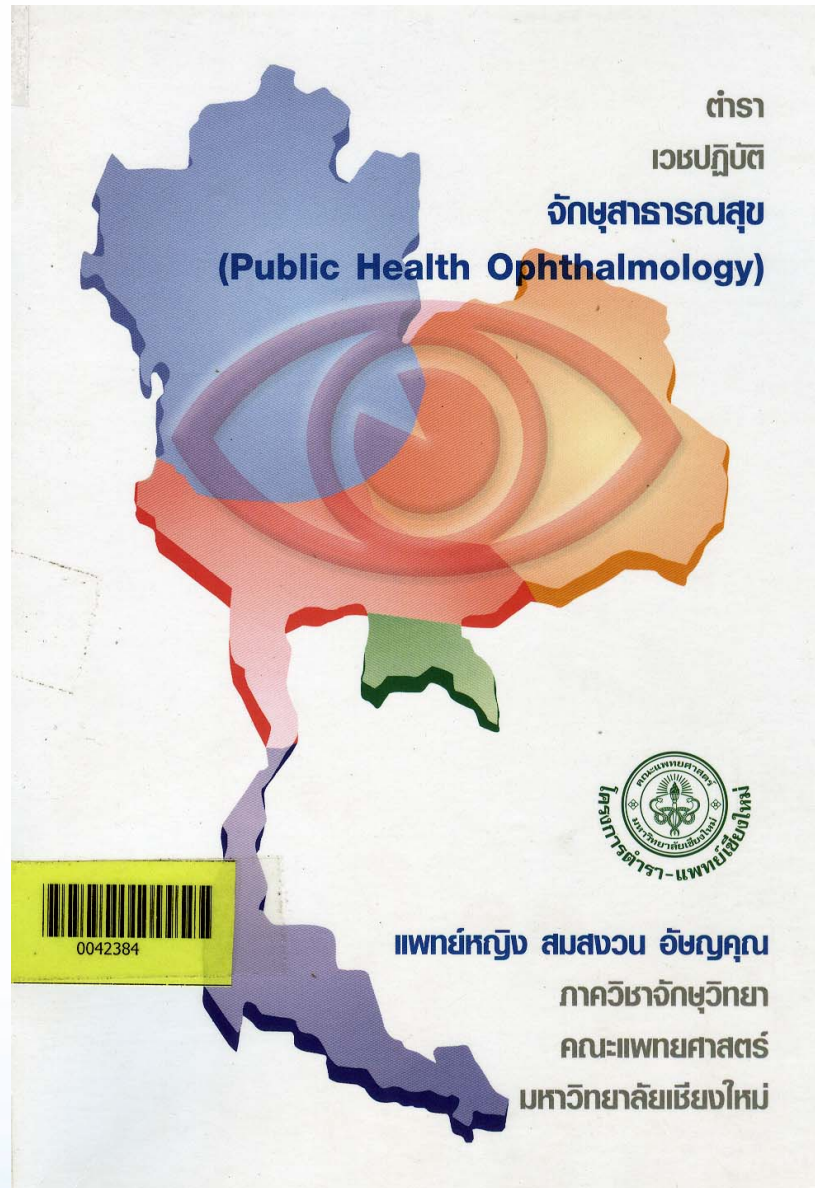


Objectives

After completing this topic, students are able to:

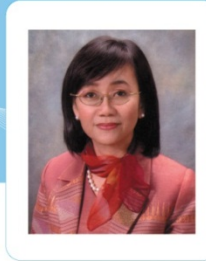
1. Explain the public health ophthalmology concept
2. Describe the definition of blindness and low vision
3. Explain the public health ophthalmology in Thailand, and eye health service plan
4. Describe the strategies for prevention of blindness in vision 2020: The right to sight, then Global health in Eye Care: Vision beyond 2021
5. Discuss about the AIDS/HIV positive patients and Eye Care





Public Health Ophthalmology Concept

แพทย์หญิง สมสงวน อัยยกุล
ตำแหน่งทางวิชาการในปัจจุบัน
รองศาสตราจารย์ ระดับ ๑ ภาควิชาจักษุวิทยา
คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่



ดำรงเนปฐกิจสาธารณสุข (Public Health)

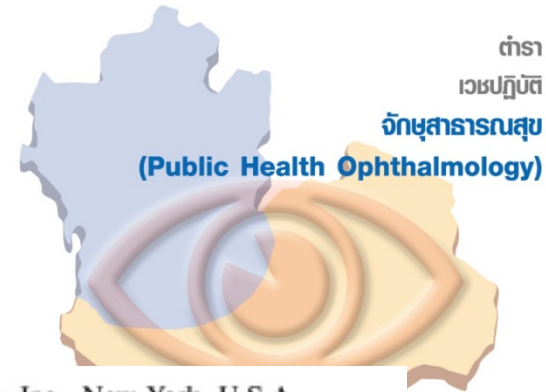
การศึกษาและคุณวุฒิ

- พ.ศ.2520 - แพทยศาสตรบัณฑิต มหาวิทยาลัยเชียงใหม่
- พ.ศ.2522 - ประกาศนียบัตรวิชาชีพชั้นสูงทางวิทยาศาสตร์การแพทย์คลินิก สาขาจักษุวิทยา มหาวิทยาลัยมหิดล
- พ.ศ.2524 - วุฒิบัตร แสดงความรู้ความชำนาญในการประกอบวิชาชีพเวชกรรม

พ.ศ. 2528 - ได้รับทุน Research to Prevent Blindness, Inc., New York, U.S.A.
ศึกษาจนได้รับ Scholar in Public Health Ophthalmology จาก
Wilmer Eye Institute, School of Medicine, Johns Hopkins
University, U.S.A.

- พ.ศ.2531 - ได้รับทุน Takeda Science Foundation จากแพทยสมาคมแห่งประเทศไทย ศึกษาเกี่ยวกับกระจกตา และโรคภูมิแพ้ของตา (cornea and ocular allergy) ที่ Nippon Medical School, Tokyo, Japan
- พ.ศ.2546 - อนุมัติบัตร แสดงความรู้ความชำนาญในการประกอบวิชาชีพเวชกรรม สาขาเวชศาสตร์ครอบครัว แพทยสภา
- พ.ศ.2547 - ได้รับทุน The Netherlands Organization of Scientific Research, The Netherlands ศึกษาด้าน กระจกตา และการผ่าตัดแก้ไขสายตาผิดปกติ (cornea and refractive surgery) ที่ University Medical Center of Utrecht The Netherlands.

แพทยศาสตร์ สาธารณ อัยยกุล



สนับสนุนโดยโครงการตำราคณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่

What does Public Health Ophthalmology mean?

- Public Health Ophthalmology is a discipline that encompass the *comprehensive community approach* to *promotion of the eye care*, and particularly to prevention of disability due to *visual impairment and blindness*. (Dr. B. Nizetic (1973) WHO Regional Office for Europe)
- จักษุสาธารณสุข เป็น ยุทธศาสตร์ หรือวิชาการที่ประกอบไปด้วย การดูแลชุมชนแบบเบ็ดเสร็จ เพื่อการส่งเสริมสุขภาพของดวงตา โดยเฉพาะอย่างยิ่ง เพื่อป้องกันการไร้สมรรถภาพ อันเนื่องมาจาก สายตา พิการและตาบอด

History of Public Health Ophthalmology

- 1950 The 3rd World Health Assembly : eradication of trachoma*
- 1960 WHO, the national trachoma campaigns in endemic countries
- 1969 The WHO Eastern Mediterranean Region : other causes of blindness (The 22nd World Health Assembly)

History of Public Health Ophthalmology

- 1972 The 25th World Health Assembly :
*the specific study group on the
prevention of blindness** :
 - definitions of low vision and blindness
 - available data on blindness

History of Public Health Ophthalmology

1973 “*Public Health Ophthalmology*” definition
by Dr. Nizetic

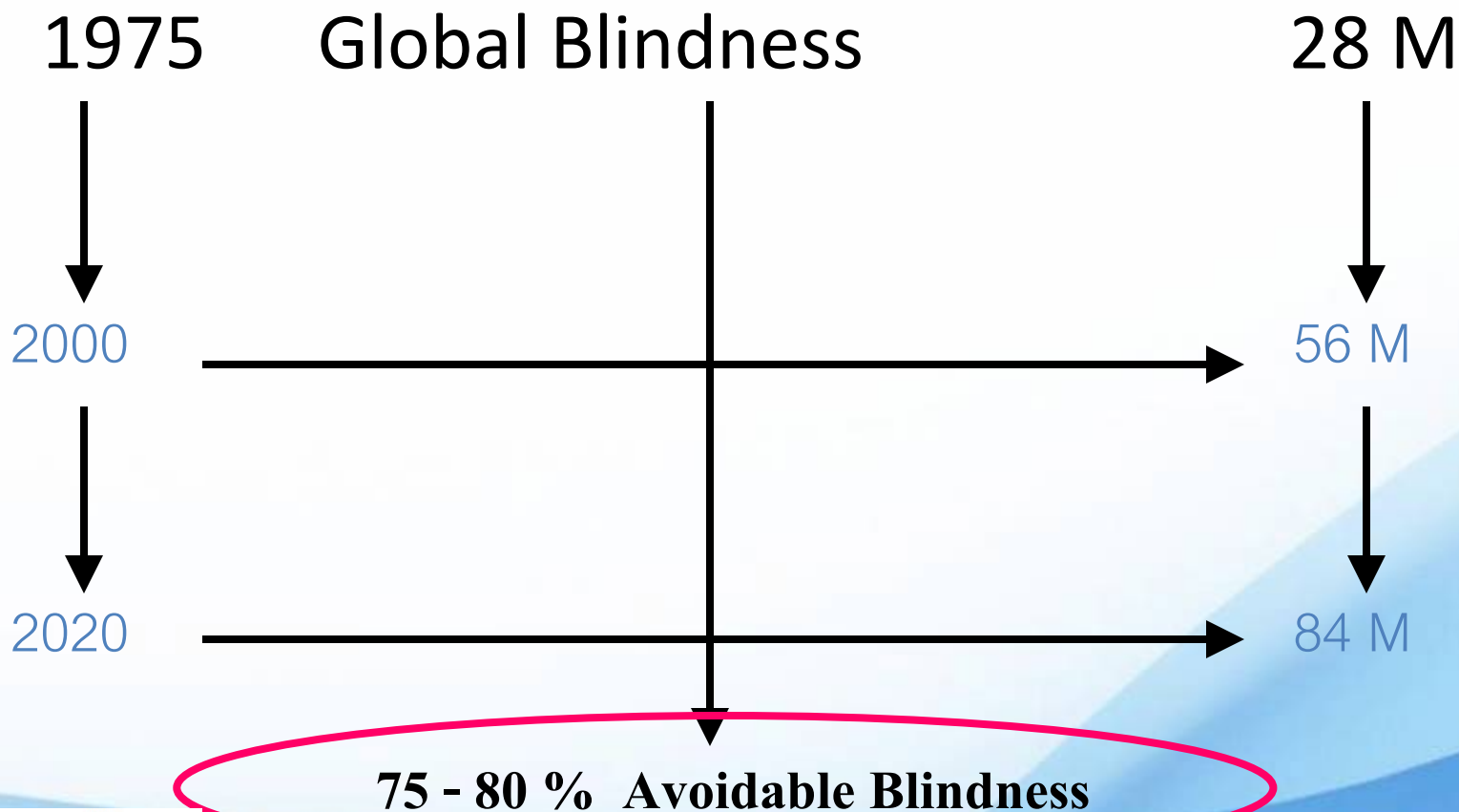
1976 World Health Day ‘s theme

“ Foresight prevent blindness ”

1978 The WHO Programmed for the Prevention
of Blindness (PBL)

“ป้องกันลวงหน้า
ตาไม่บอด”

Data of Blindness



Cause of blindness in 1975

- Cataract 15 M
- Trachoma 6 M
- Glaucoma 3 M
- Onchocerciasis 1 M
- Leprosy 1 M
- Xerophthalmia 0.5 M
- Trauma 0.5 M
- Age-related macular degeneration 0.5 M
- Diabetic retinopathy 0.5 M



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Population
in
each group
(%)
(in millions)

Total estimated
population
in millions

Estimated Blindness
(< 3/60)

Prevalence rate

No. of Blind

A	2,100	1.0	21.0
B	1,100	0.5	5.5
C	800	0.2	1.6
Global Total	4,000	-	28.1



Cause of blindness in 1975

A. Underdeveloped Countries (prevalence rate = 1.0%)* :

- Trachoma
- Onchocerciasis
- Xerophthalmia
- Cataract

B. Developing (Inter-rim) Countries (prevalence rate = 0.5%) :

- Cataract
- Glaucoma

C. Developed Countries (prevalence rate = 0.2%) :

- Age - related macular degeneration
- Diabetic retinopathy
- Hypertensive retinopathy

Environmental Conditions	Visual Disorders	Visual Impairment	Visual Disability	Visual Handicap
Etiology	Pathology	Visual Function	Functional Vision	Social Impact
← Epidemiology →		← Medical Care →		
		← Vision Aids →		
			← Education →	
← Public Health Ophthalmology →				

Concept of Public Health Ophthalmology by Dr. August Colenbrander, 1978 Working Paper for Asilomar Conference, WHO





Objectives

After completing this topic, students are able to:






2. Describe the definition of blindness and low vision
3. Describe the WHO/ICPB standard, and
4. Describe the WHO/ICPB strategy to prevent blindness
5. Discuss about the COVID-19 and Eye Care



Categories of Visual Impairment (ICD, WHO)

Category		V.A. with best correction	V.F.
Low Vision	1	< 6/18 to 6/60	< 30° to 20°
	2	< 6/60 to 3/60	< 20° to 10°
Blind	3*	< 3/60 to 1/60	< 10° to 5°
	4	< 1/60 to PL	< 5° to 0°
	5	No PL	

Classification of severity of vision impairment based on visual acuity in the better eye

Category		Visual acuity in the better eye	
		Worse than:	Equal to or better than:
Mild vision impairment		6/12	6/18
Moderate vision impairment		6/18	6/60
Severe vision impairment		6/60	3/60
Blindness		3/60	
Near vision impairment		N6 or M 0.8 at 40cm	

Typically, epidemiological surveys measure the degree of visual impairment and blindness according to the above classification table using visual acuity (61). Severe visual impairment and blindness are also categorized according to the degree of constriction of the central visual field in the better eye to less than 20 degrees or 10 degrees, respectively (62, 63).

World Report on Vision • Executive Summary: World Health Organization.
www.who.int/publications/detail/world-report-on-vision. WHO/NMH/NVI/19.12.2019.)



Objectives

After completing this topic, students are able to:

3. Explain the public health ophthalmology in Thailand, and eye health service plan
4. Describe the WHO/IKPB strategy to prevent blindness
5. Discuss about the COVID-19 and Eye Care



Thailand

พ.ศ.2521 มี 71 จังหวัด (ประชากร 45 ล้าน)

- 70 Total ophthalmologists
- 20 in rural hospitals



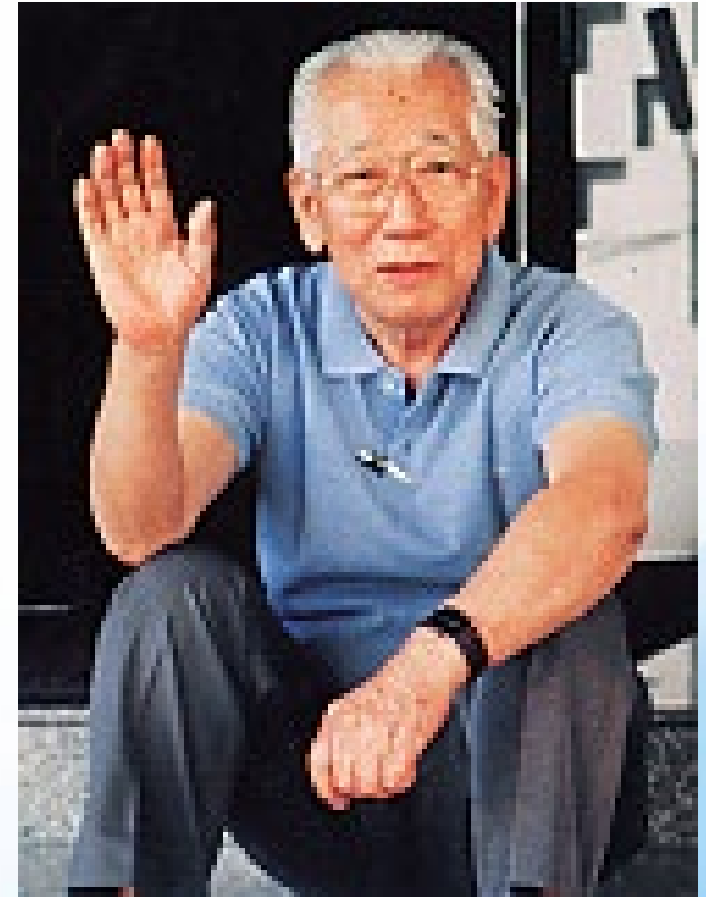


คาซุอิจิ คอนยามา สวนกุหลาบวิทยาลัย

เป็นชาวต่างประเทศคนหนึ่ง และคนเดียวเท่านั้นที่
จากบ้านเกิดเมืองนอนมาเรียนหมอกับเราในรุ่นนี้
เขาเกิดที่ตำบลมารุกาเบ เมืองกังงาวา ประเทศญี่ปุ่น
การเรียนดี ชยันไม่แพ้ใคร และเข้ากับเราได้ไม่เคอะเขิน
ในห้องของเขานิยมชงน้ำชาไว้เลี้ยงเพื่อนตลอดเวลา
ปีนี้ได้ พ.บ. กลับบ้านแน่
ถ้าใครจะไปญี่ปุ่น อย่าลืมบอกเขาล่วงหน้า ยินดีต้อนรับเสมอ



Prof. K. Konyama, M.D., Ph.D., M.P.H.
Department of Ophthalmology
Jutendo University School of Medicine
WHO Collaborating Centre for PBL
Tokyo, Japan



Faculty of Medicine, Chiang Mai University, Chiang Mai, THAILAND.

S. Ausayakhun, MD, MHSc.





What is the strategy of PHO in Thailand? by K. Konyama for PHO 1983 @ JHU

Action Plan:

1. Immediate action
2. Short term action
3. Intermediate term action
4. Long term action



Immediate action

- Establishment of the *Ophthalmic Cell* in the Ministry of Public Health (MPH)
- Enforcement of the rural eye clinics
- Study of existing ocular problems



นายแพทย์วิชาญ ศรีสุพรรณ

The Ophthalmic Cell : ผู้บุกเบิกงานจักษุสาธารณสุข



Thailand National Eye Survey

Year of survey	Blindness prevalence	Cataract	Surgical backlog
1983 (2526)	1.14%	47.3%	270,000

Jenchitr W et al 2007 Thai Journal of Public Health Ophthalmology



Faculty of Medicine, Chiang Mai University, Chiang Mai, THAILAND.

S. Ausayakhun, MD, MHSc.





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Population in each group (%) (in millions)	Total estimated population in millions	Estimated Blindness (< 3/60)	
		Prevalence rate	No. of Blind
A	2,100	1.0	21.0
B	1,100	0.5	5.5
C	800	0.2	1.6
Global Total	4,000	-	28.1



Short term action

- **Manpower development**
- Vertical approach to some curable blinding diseases (cataract)
- **Upgrading the rural eye clinics**

Ophthalmologist:

- 3 years training
- **6 months training (Ophthalmic surgeon)**

Intermediate term action

- Policy formulation and programming
- **Manpower development**
- Horizontal and vertical approaches

Ophthalmic nurses

(พยาบาลเวชปฏิบัติทางตา)

- (6 months training)
- 4 months training



Institute of Public Health Ophthalmology

ศูนย์จักษุสาธารณสุข มหาวิทยาลัยเชียงใหม่

- Institute of Public Health Ophthalmology
- Maharaj Nakorn Ratchasema Regional Hospital
- Thailand



Faculty of Medicine, Chiang Mai University, Chiang Mai, THAILAND.

S. Ausayakhun, MD, MHSc.



International Public Health Ophthalmology Course (Korat Course)





Long term action

- Policy making and programming
- Re-enforcement of referral system
- Integrate whole up project into the national health care system



Thailand National Eye Survey

Year of survey	Blindness prevalence	Cataract	Surgical backlog
1983 (2526)	1.14%	47.3%	270,000
1987 (2530)	0.58%	71.3%	220,000
1994 (2537)	0.31%	74.7%	134,000
2006 (2549)	0.59%	51.6%	98,336

ที่มา: วัฒนีย์ เย็นจิตร วารสารจักษุสาธาณสุข 2550

2006 Thailand National Eye Survey

Causes of blindness *	%
Cataract	50
Glaucoma	10
Age-related macular degeneration	7
Corneal opacity	5
Refractive error	4

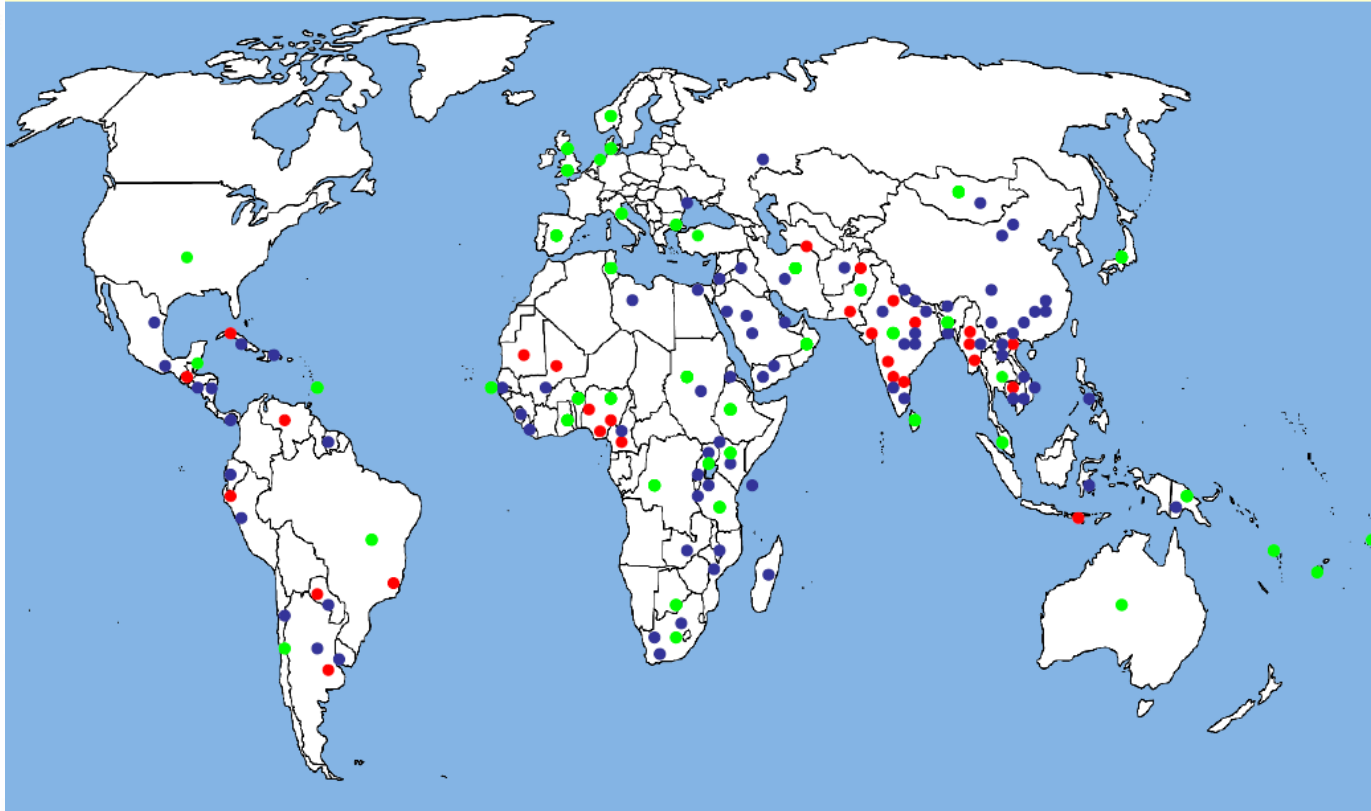
Jenchitr W et al 2007 Thai Journal of Public Health Ophthalmology

Thai National survey of blindness

Year	Prevalence rate %	Cataract %	Cataract backlog
1983	1.14	47.3	270,000
1987	0.58	71.3	220,000
1994	0.31	74.7	134,000
2006	0.59	51.6	98,336
2013	0.60	69.7	70,071

Where surveys were done

• RACSS • RAAB • Custom survey



RACSS = Rapid Assessment of Cataract Surgical Service

RAAB = Rapid Assessment of Avoidable Blindness

RESEARCH ARTICLE

The First Rapid Assessment of Avoidable Blindness (RAAB) in Thailand

Table 5. Proportion of Blindness, SVI, and MVI in examined persons due to specific causes in Thailand.

Causes	Blindness (n=99)	SVI (n=236)	MVI (n=2,431)
	%	%	%
Cataract untreated	69.7	77.1	60.0
Refractive error	4.0	10.2	26.7
Aphakia uncorrected	2.0	0.0	0.1
Cataract surgical complications	1.0	0.4	0.9
Glaucoma	4.0	3.4	3.2
Diabetic retinopathy	5.1	2.1	1.1
Corneal opacity	2.0	2.1	3.2
Phthisis	4.0	2.5	2.5
AMD	2.0	0.4	0.1
Other posterior segment diseases	6.1	1.7	2.1
All other globe/CNS abnormalities	0.0	0.0	0.0
Onchocerciasis	0.0	0.0	0.0

doi:10.1371/journal.pone.0114245.t005

2013 Thailand RAAB Survey*

โดย โรงพยาบาลเมตตาประชารักษ์ (วัดไร่ขิง)

Causes of blindness	%
Cataract	69.7
Refractive error	6.0
Diabetic retinopathy	5.1
Glaucoma	4.0
Corneal opacity	2.0

2006 Thailand National Eye Survey vs 2013 Thailand RAAB Survey

Causes of blindness	%
Cataract	50
Glaucoma	10
ARMD	7
Corneal opacity	5
Refractive error	4

2006 Thailand National Eye Survey

Causes of blindness	%
Cataract	69.7
Refractive error	6.0
Diabetic retinopathy	5.1
Glaucoma	4.0
Corneal opacity	2.0

2013 Thailand RAAB Survey



**GLOBAL HEALTH
IN EYE CARE:**
OK VIRTUAL MEETING

**VISION
BEYOND 2021**
26 August 2021



**World Health Organization
and Thailand Movement in Eye Care**
• Thailand Ways forward:
Proposed Plan of Action

MoPH: Eye Care Service Plan

What's NEXT?

- ▶ **Cataract:** fixed quota national scheme?
 - ▶ 2,500 CSR in UHC vs. 8,000+ CSR in CSMBS
- ▶ **DR:** only "Screening" Program?
 - ▶ TeleMedicine
 - ▶ Upcoming **12 Retinal Centers**
- ▶ **Corneal Blindness:** after 4,800/8,400 transplants, Then?
- ▶ **Refraction:** School Visual Screening (REVISIT 2022)
 - ▶ - Preschool? - Workforce? - Elderly?
- ▶ **ROP:** What's next?

The Movement



Warapat Wongsawad, MD
Mettapracharak
(Wat Rai Khing) Hospital



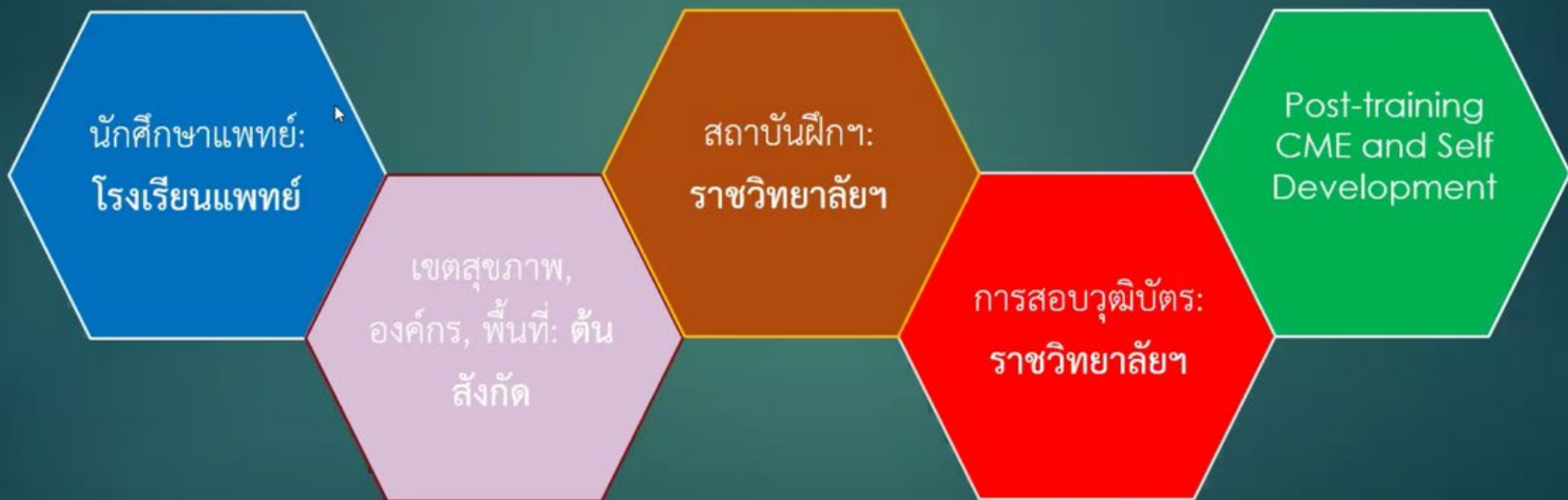
Faculty of Medicine, Chiang Mai University, Chiang Mai, THAILAND.

S. Ausayakhun, MD, MHSc.





5 องค์ประกอบของการผลิตจักษุแพทย์ (งานจักษุยั่งยืน)





Objectives

After completing this topic, students are able to:

1. Describe the epidemiology of eye diseases
2. Describe the epidemiology of eye diseases
3. Describe the epidemiology of eye diseases
4. Describe the strategies for prevention of blindness in vision 2020: The right to sight, then Global health in Eye Care: Vision beyond 2021
5. Discuss about the COVID-19 and Eye Care



Data of Blindness



75 - 80 % Avoidable Blindness

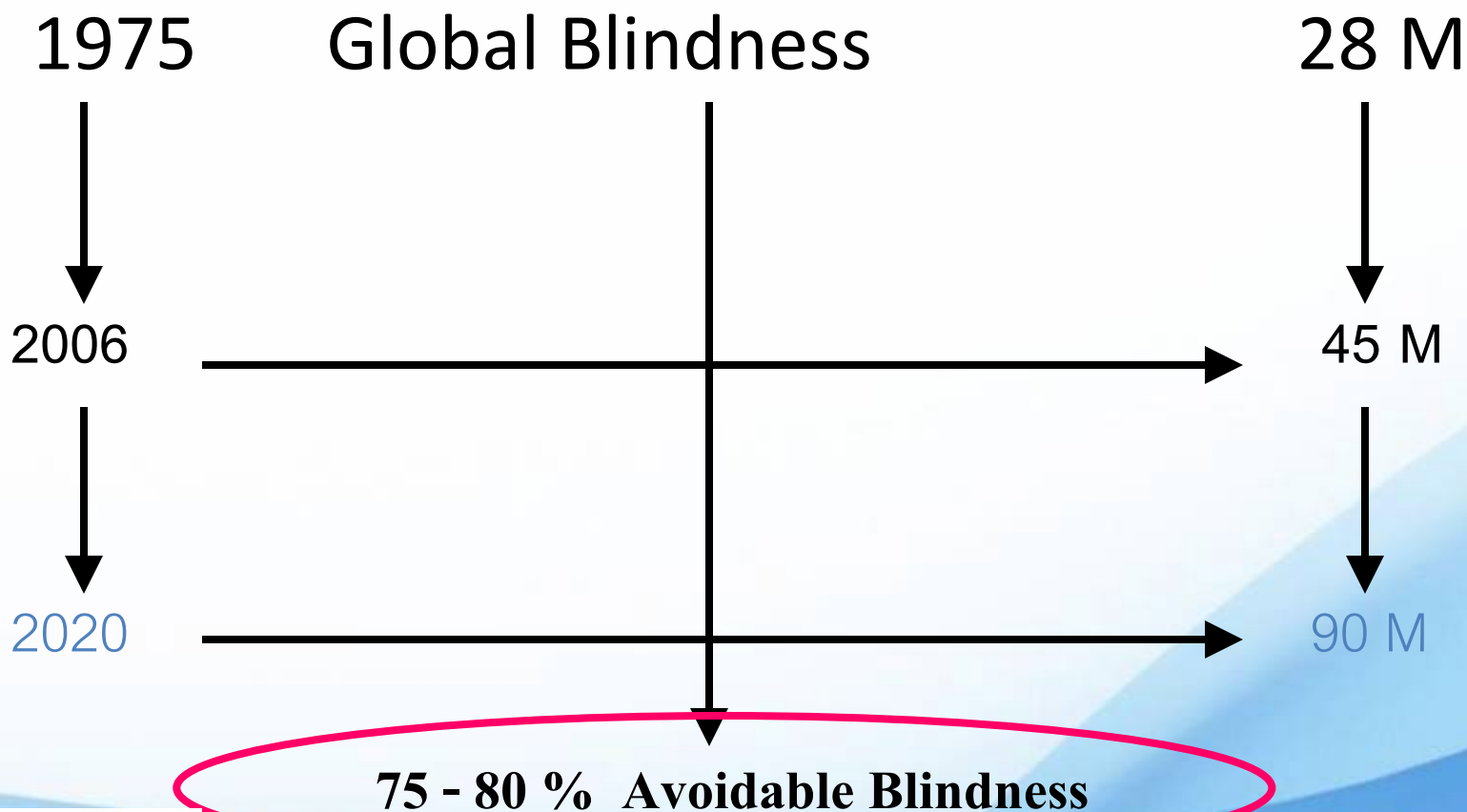
Data of Blindness

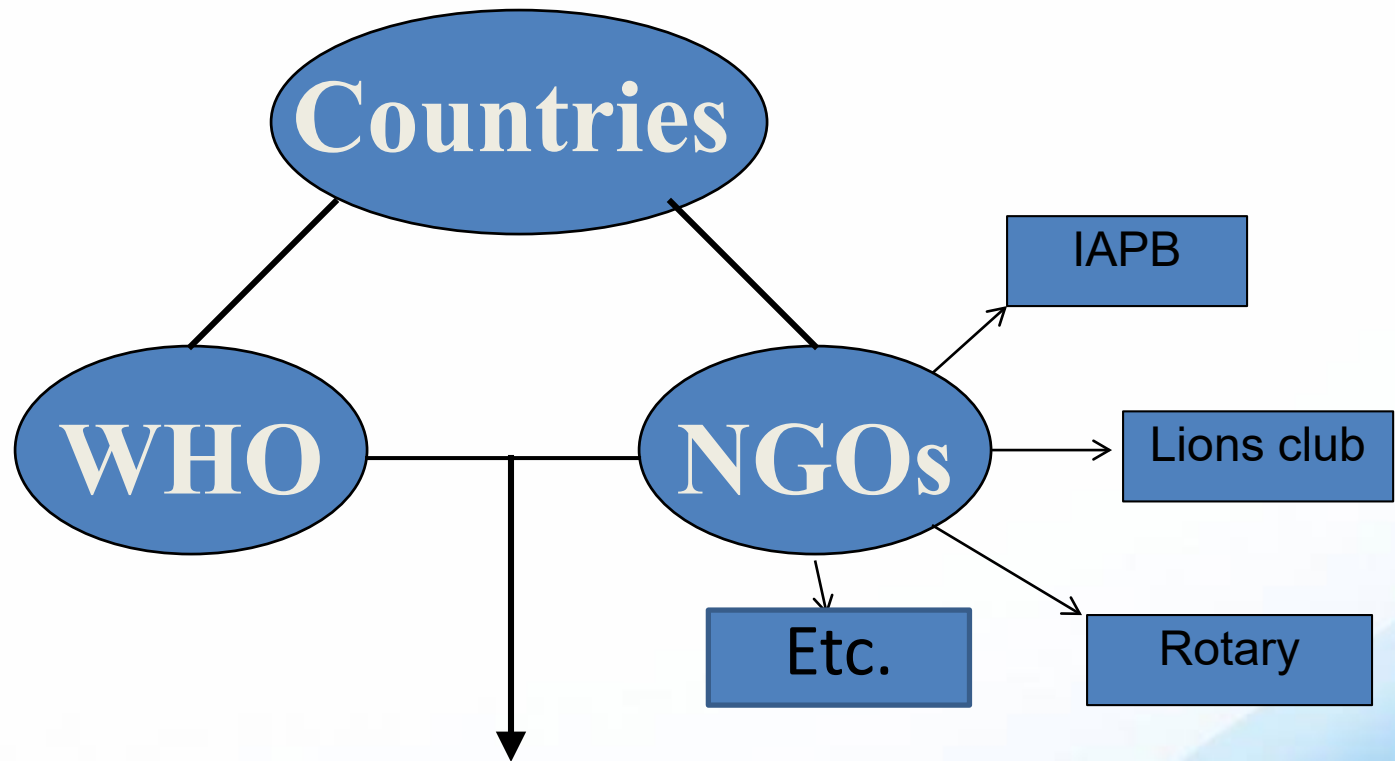


Trends and Future Projections

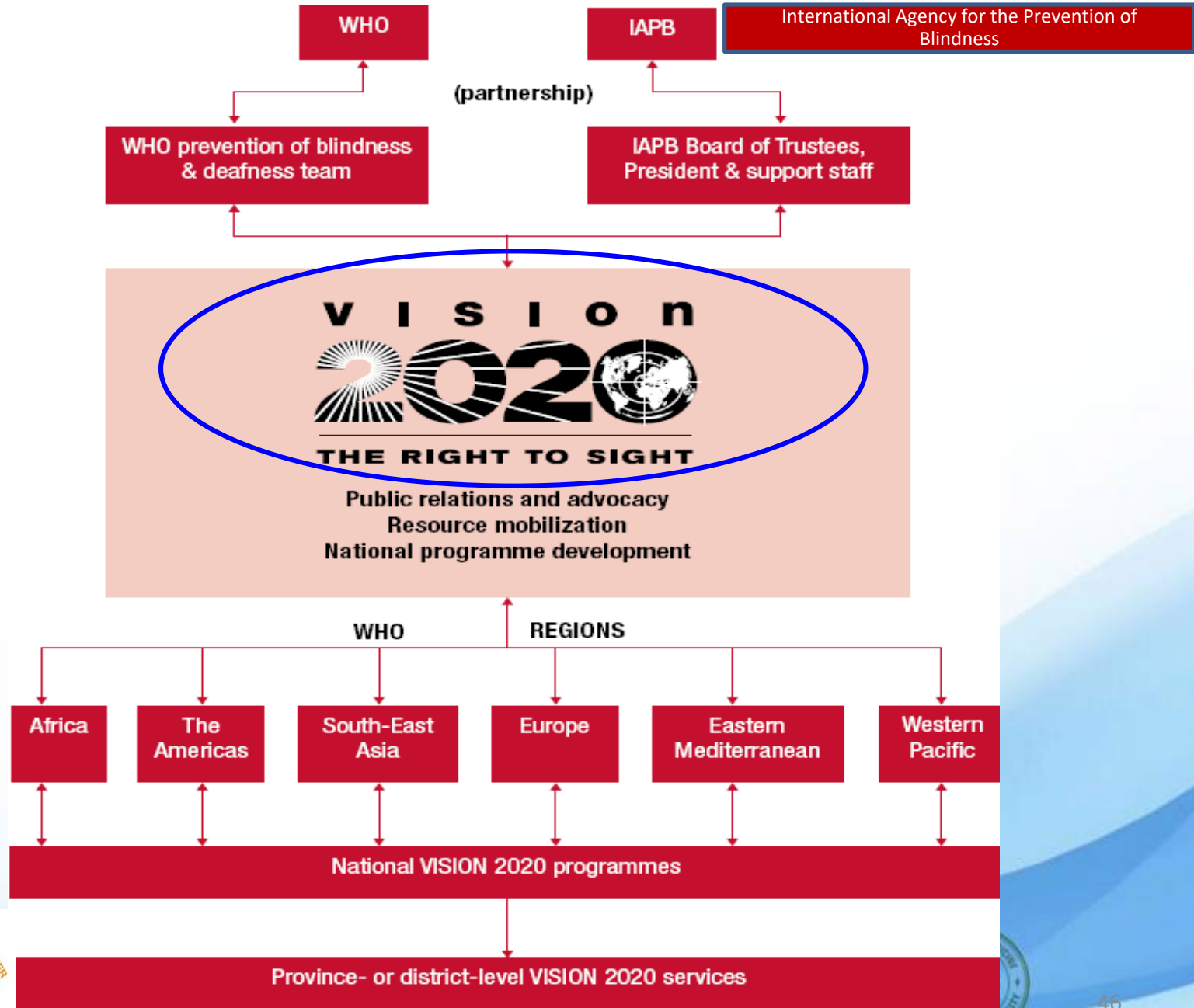
- Every **5** seconds, **one** individual goes blind in the world
- At the present level of intervention, the global blindness will be double in 2020 *

Data of Blindness





The Global Initiative for the Elimination of Avoidable Blindness by 2020



Mission of 2020

- To eliminate the main causes of blindness in order to give all people in the world, particularly the millions of needlessly blind, *the right to sight.*



Action plan for VISION 2020 *

- Control of major causes of blindness
- Human resource development
- Provision of appropriate technology and infrastructure

Action plan for VISION 2020

- Control of major causes of blindness

Control of major causes of blindness
• Refractive error
• Glaucoma
• Cataract
• Diabetic retinopathy
• Age related maculopathy

World report on vision Executive Summary



THE WORLD REPORT ON VISION IAPB SUMMARY

Estimated global number of people with vision impairment and those with vision impairment that could have been prevented or is yet to be addressed.

At least 2.2 billion people

with vision impairment (including vision impairment that has been addressed)

At least 1 billion people

with vision impairment that could have been prevented or has yet to be addressed

Unaddressed refractive error (123.7 million),
Cataract (65.2 million),
Glaucoma (6.9 million),
Corneal opacities (4.2 million),
Diabetic Retinopathy (3 million)
Trachoma (2 million)
Unaddressed presbyopia (826 million)



Causes of preventable vision impairment *

- Unaddressed presbyopia 826 M
- Unaddressed refractive error 123.7 M
- Cataract 65.2 M
- Glaucoma 6.9 M
- Corneal opacities 4.2 M
- Diabetic retinopathy 3 M
- Trachoma 2 M

IAPB Trends

- Presbyopia
- Diabetic retinopathy
- Myopia
- Trachoma
- Onchocerciasis
- Growing & Ageing Population
- Eye Health Systems
- Financing Universal Eye Health
- Sustainable Development Goal
- School Eye Health

1. Presbyopia

Presbyopia - the scale of the problem

In 2015, near-vision impairment due to uncorrected Presbyopia was estimated to affect

1.1 billion people

aged 35 years and older, including

667 million

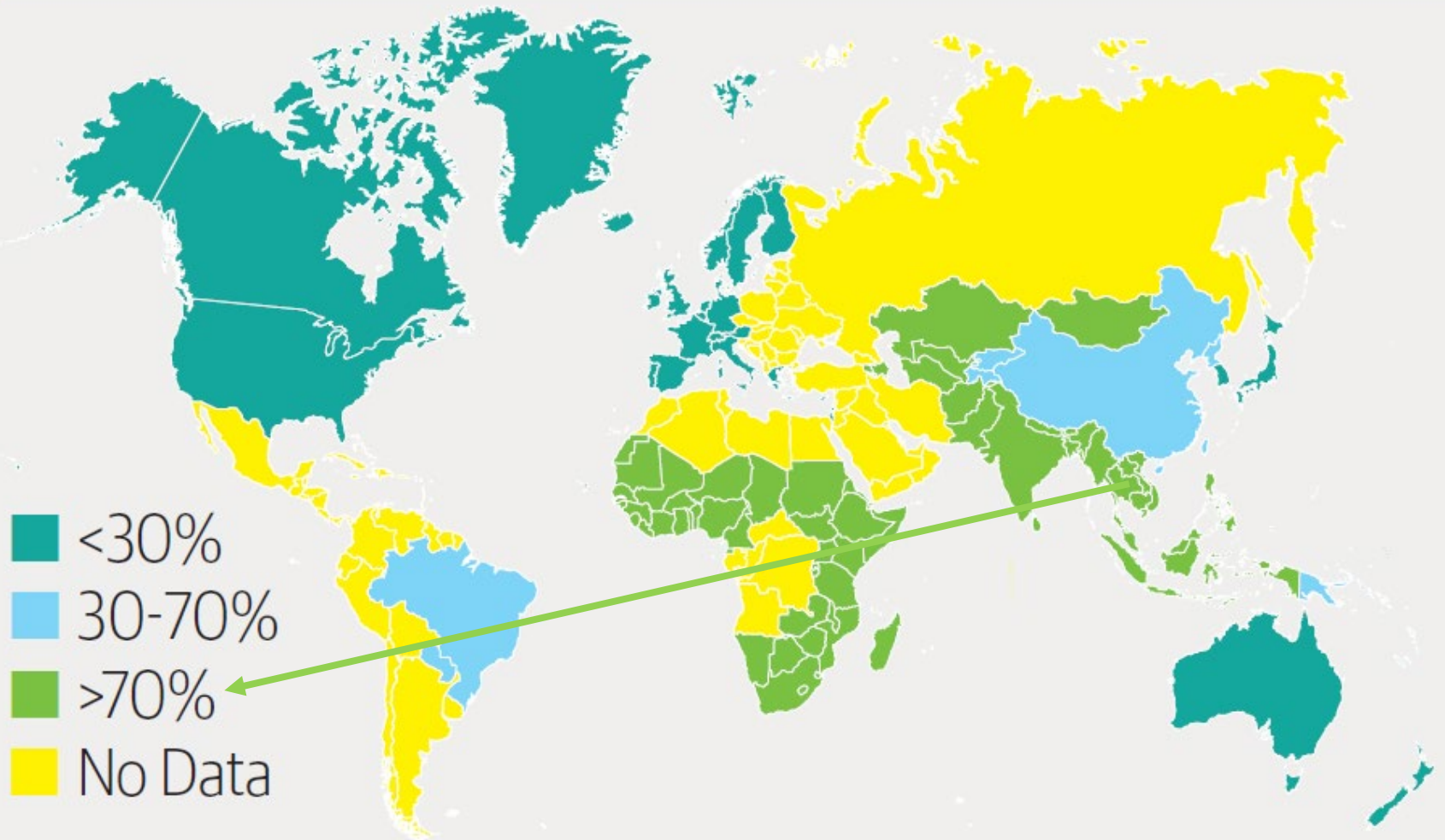
people aged 50 years and older. **All they need in order to see properly is a pair of glasses...**



95%

of those with uncorrected near vision were found to reside in less-developed countries

Average sub-regional rates of Near-Vision Impairment due to lack of reading glasses



Data correct at 12th Oct 2017

©IAPB Vision Atlas



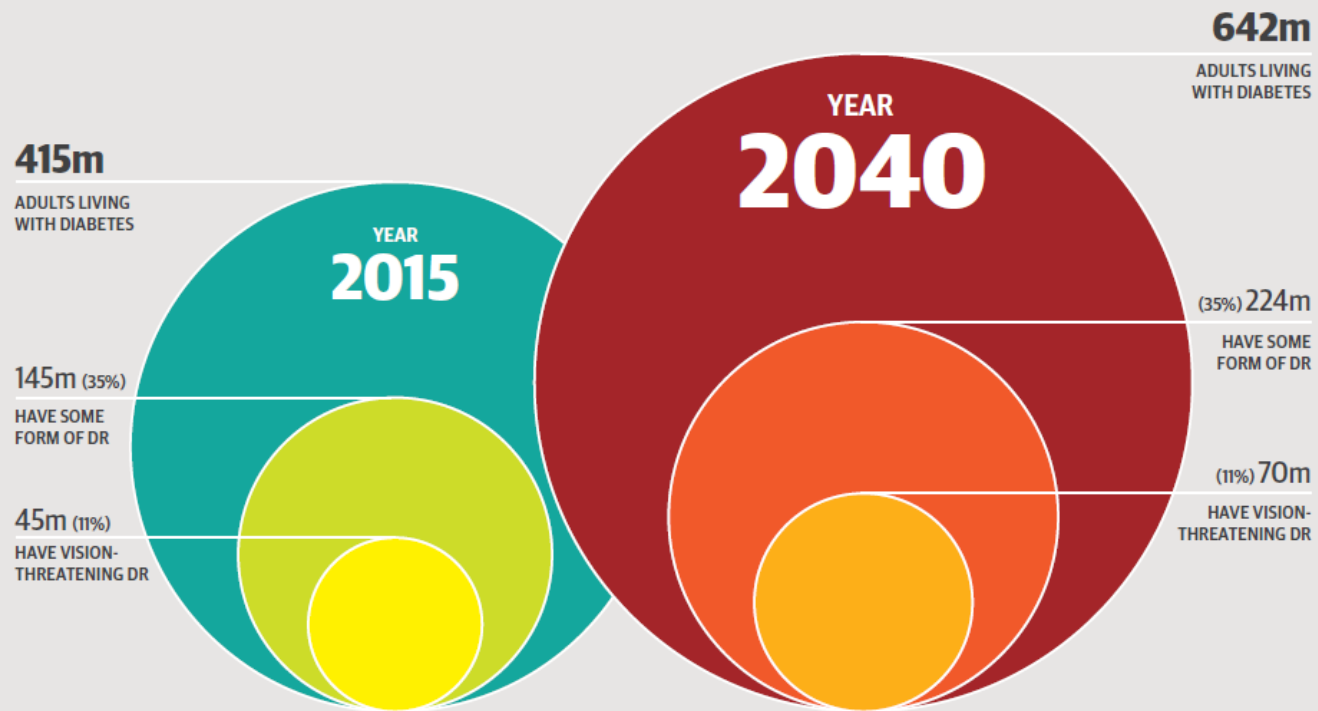
Faculty of Medicine, Chiang Mai University, Chiang Mai, THAILAND.

S. Ausayakhun, MD, MHSc.



2. Diabetic retinopathy

Global Prevalence of people with diabetes and Diabetic Retinopathy

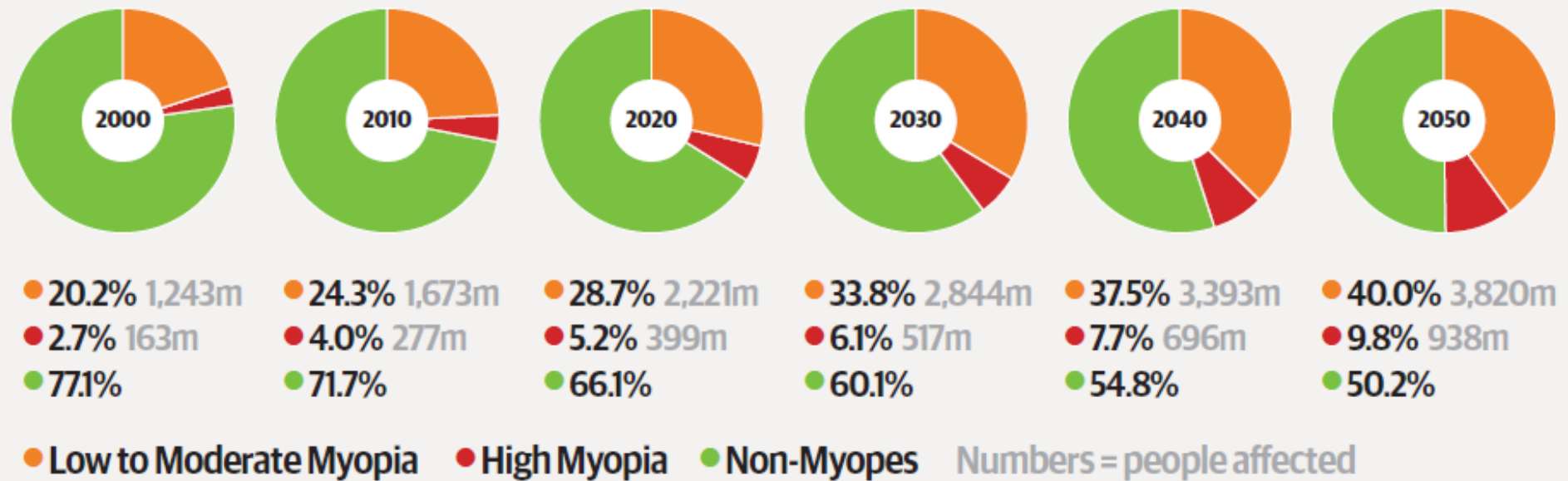


Data correct as at 2nd Feb 2017

© IAPB Vision Atlas

3. Myopia

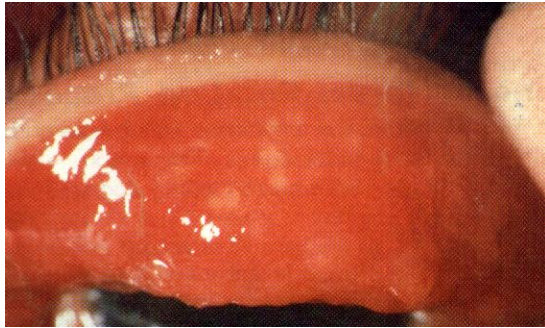
Estimated global prevalence of Myopia - 2000 to 2050



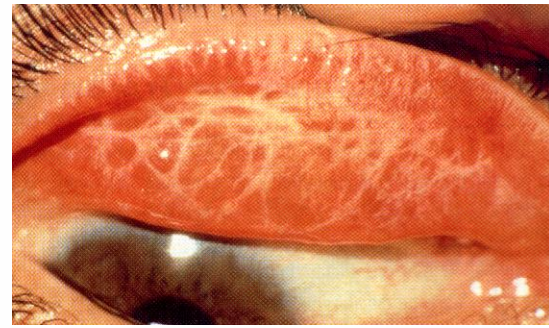
Data correct as at 12th Oct 2017

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4. Trachoma



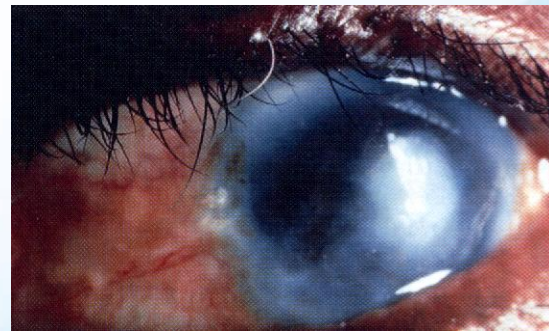
TI= Trachomatous
inflammation- intense



TS= Trachomatous scarring



TT= Trachomatous trichiasis



CO= Corneal opacity

4. Trachoma

Status of elimination of Trachoma as a public health problem, 2018

43 countries
need SAFE interventions to eliminate Trachoma*

38 countries
actively implementing SAFE strategy*

Over 55%
of the people at risk of Trachoma live in Ethiopia and Nigeria*

70 million
people at risk in Ethiopia, the world's most affected country*

4 countries
claim to have eliminated Trachoma as a public health problem

8 countries
Cambodia, Ghana, Iran, Laos, Mexico, Morocco, Oman and Nepal validated as having eliminated Trachoma

*Source: 2018 GET2020 database

According to the Global Health Observatory, 2018

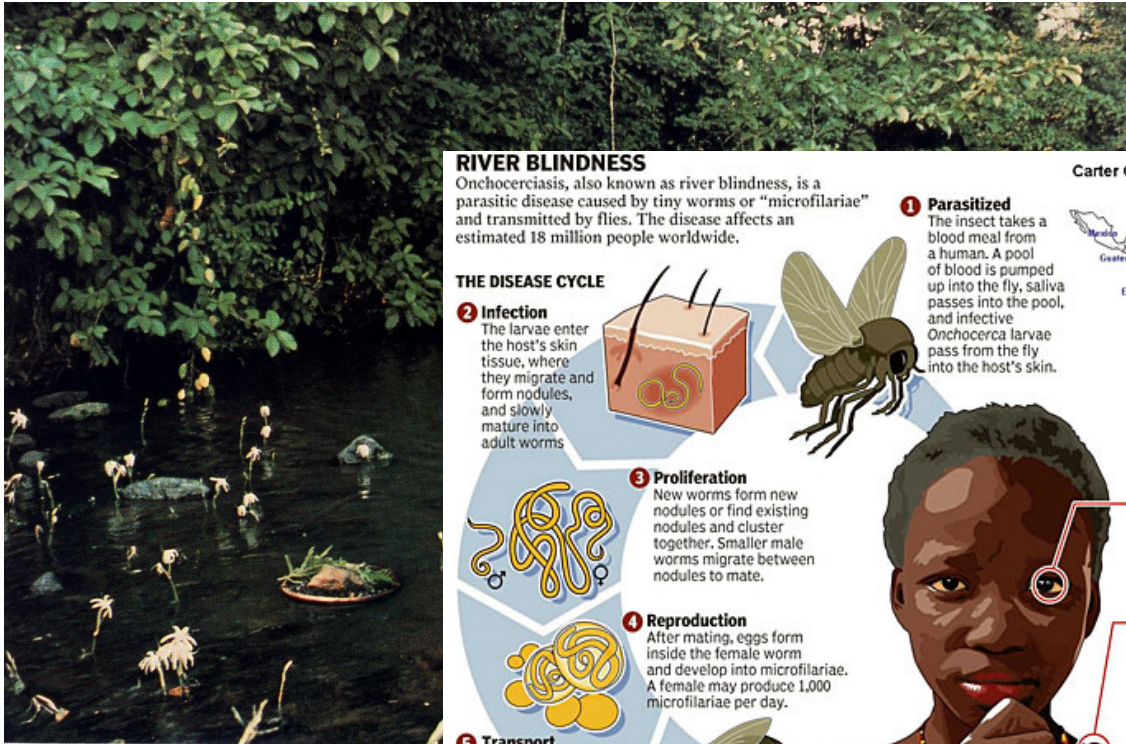
- Known to require interventions to eliminate Trachoma
- Status uncertain
- Claims to have eliminated Trachoma
- Validated by WHO as having eliminated Trachoma
- Thought to not require interventions

It is estimated that
US\$1 billion
is needed to eliminate
Trachoma entirely

The target is to eliminate
Trachoma completely

by 2020

5. Onchocerciasis



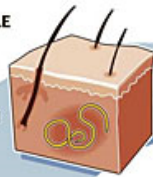
RIVER BLINDNESS

Onchocerciasis, also known as river blindness, is a parasitic disease caused by tiny worms or "microfilariae" and transmitted by flies. The disease affects an estimated 18 million people worldwide.

THE DISEASE CYCLE

1 Parasitized

The larvae enter the host's skin tissue, where they migrate and form nodules, and slowly mature into adult worms



The insect takes a blood meal from a human. A pool of blood is pumped up into the fly, saliva passes into the pool, and infective *Onchocerca* larvae pass from the fly into the host's skin.

2 Infection

New worms form new nodules or find existing nodules and cluster together. Smaller male worms migrate between nodules to mate.



3 Proliferation

After mating, eggs form inside the female worm and develop into microfilariae. A female may produce 1,000 microfilariae per day.



4 Reproduction

When the infected host is bitten by another fly, microfilariae are transferred from the host to the fly.



Sources: World Health Organization, Centers for Disease Control; Map: The Carter Center

Carter Center-Assisted Onchocerciasis Control Programs



Highlighted areas in Africa represent areas where The Carter Center is actively working. The highlighted areas in Latin America represent the 13 remaining foci.

DISEASE SYMPTOMS

Eye lesions

If microfilariae migrate to the eye, they can cause severe lesions and in some cases blindness.



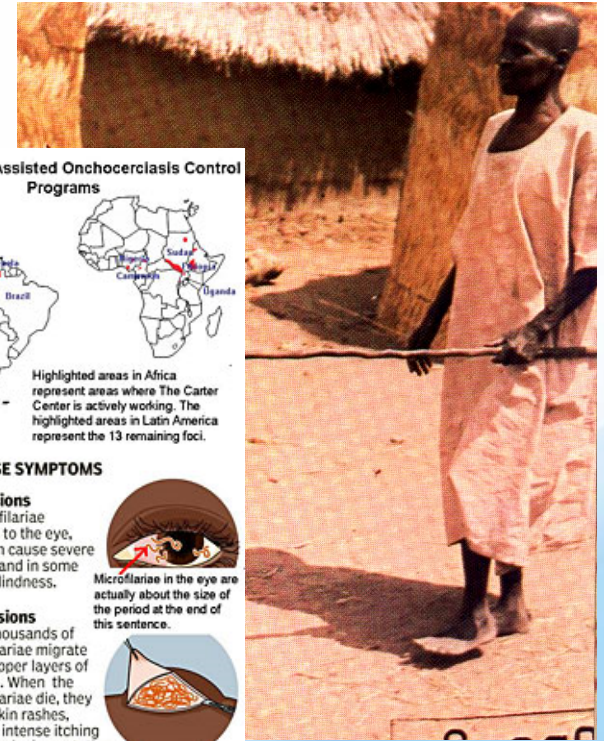
Microfilariae in the eye are actually about the size of the period at the end of this sentence.

Skin lesions

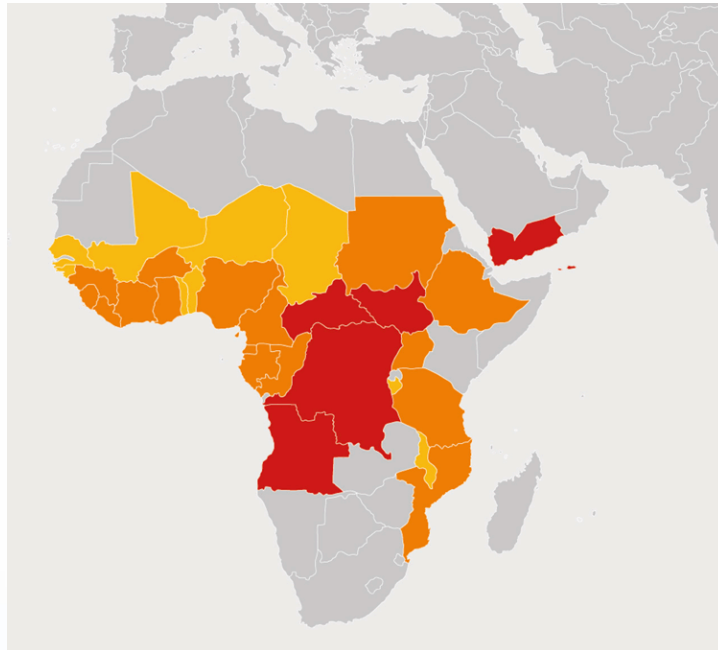
Many thousands of microfilariae migrate in the upper layers of the skin. When the microfilariae die, they cause skin rashes, lesions, intense itching and skin depigmentation.



ALBERTO CUADRA : CHRONICLE



Distribution of Onchocerciasis in Africa and Middle East



Good progress, with treatment expected to stop in
2016 - 2017

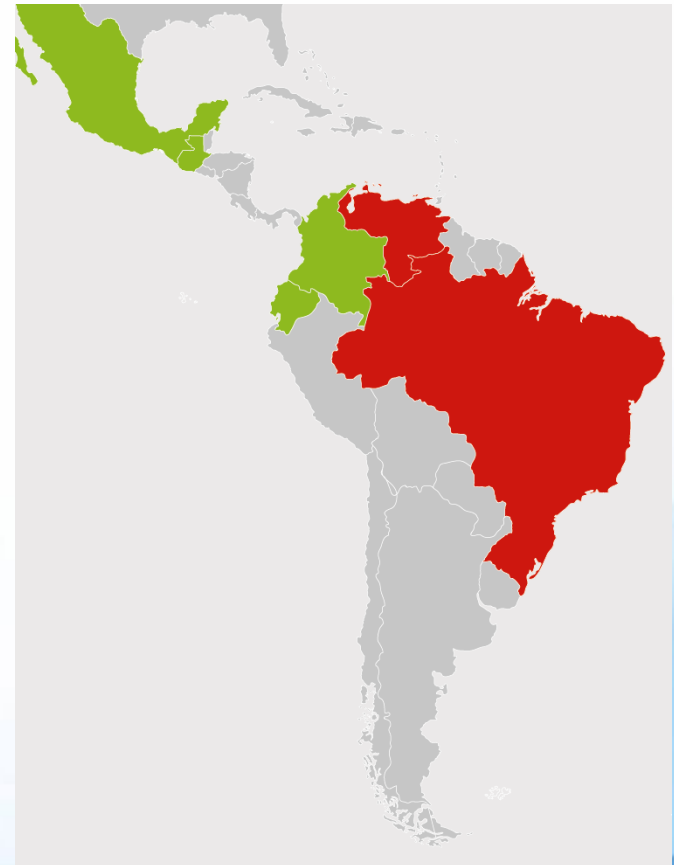


On target to be able to stop treatment
between 2018 and 2020



Likely to require treatment beyond 2020

Distribution of Onchocerciasis in the Americas

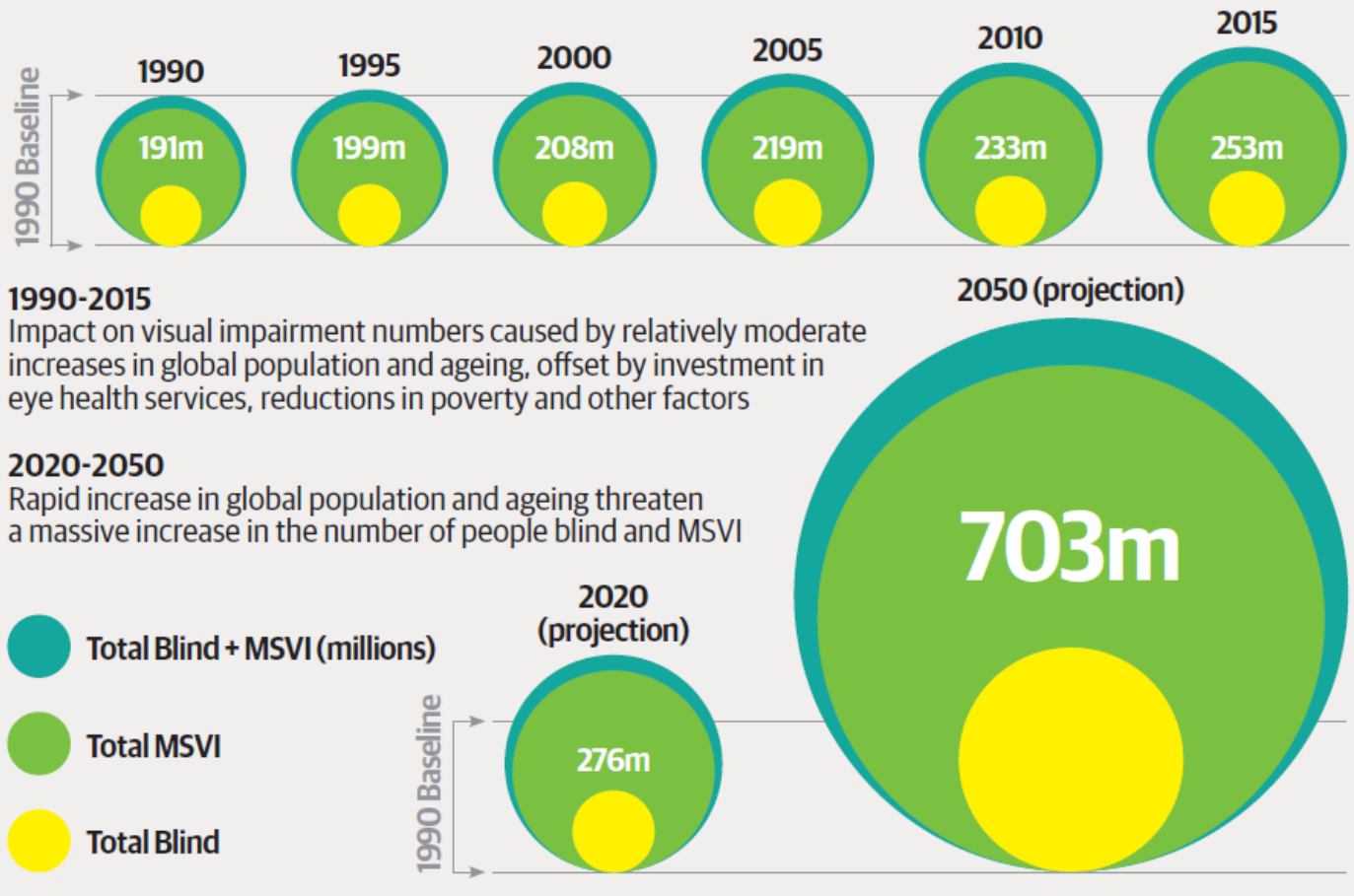


Verified as free of Onchocerciasis



Small pockets of active Onchocerciasis
transmission remains

VLEG estimates for the global number of blind and MSVI - 1990 to 2050



1990-2015

Impact on visual impairment numbers caused by relatively moderate increases in global population and ageing, offset by investment in eye health services, reductions in poverty and other factors

2020-2050

Rapid increase in global population and ageing threaten a massive increase in the number of people blind and MSVI

- Total Blind + MSVI (millions)
- Total MSVI
- Total Blind

Data correct at 12th Oct 2017

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Action plan for VISION 2020

- Control of major causes of blindness
- **Human resource development**
- Provision of appropriate technology



Human resource development

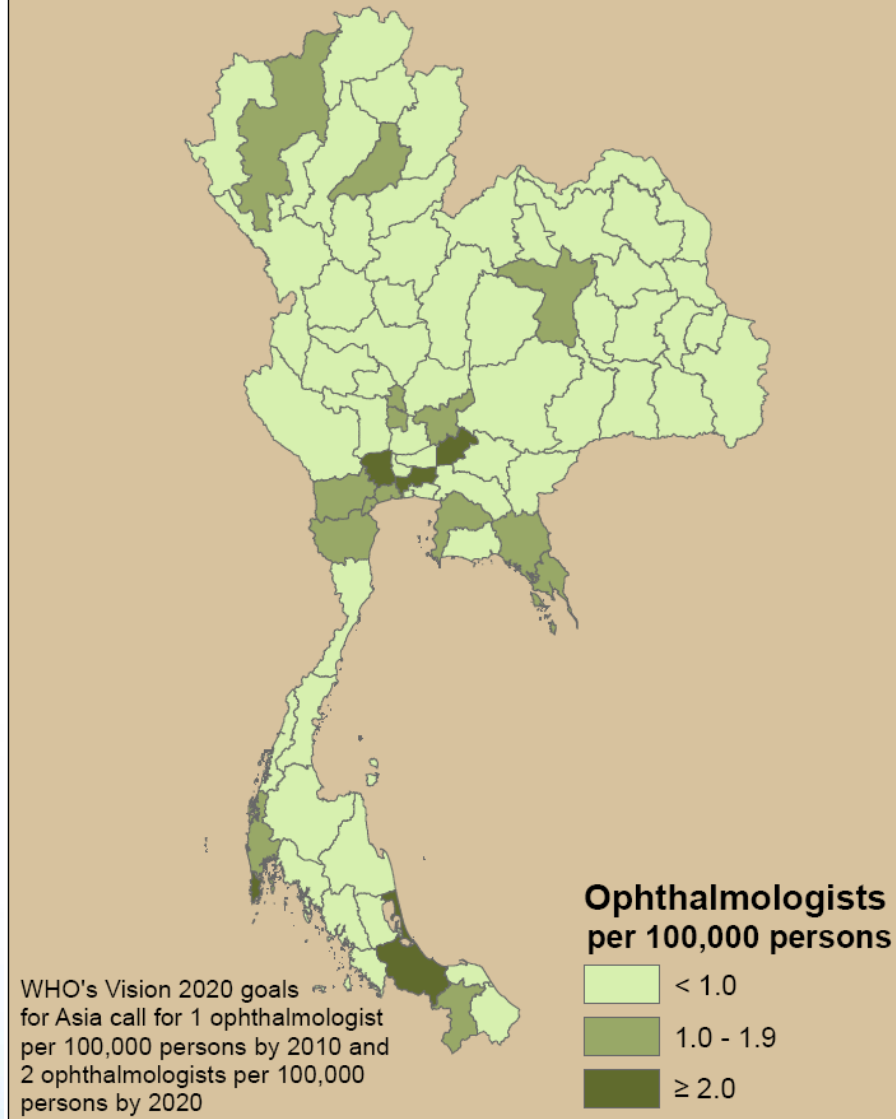
- Training of Staff :
 - Ophthalmologists
 - Ophthalmic Nurses
 - Optometrists (OD)
 - Ophthalmic Medical Assistants (OMA)
 - Refractionist
 - Equipment technician
- **Public Health Ophthalmology** education at different levels including *medical school*



WHO goal for Human Resource Development

Goal/pop	2000	2010	2020
Ophthalmologist			
Africa	1:500,000	1:400,000	1:250,000
Asia	1:200,000	1:100,000	1:50,000
Oph Nurse/OMA			
Africa	1:400,000	1:200,000	1:100,000
Asia	1:200,000	1:100,000	1:50,000
Refractionist	1:250,000	1:100,000	1:50,000

Access to Ophthalmologists in Thailand





DEPARTMENT OF
OPHTHALMOLOGY

การกระจายตัวของจักษุแพทย์ ปี พ.ศ. 2564

ภาค	ประชากร	จำนวน จักษุแพทย์	อัตราส่วนต่อ ประชากร
เหนือ	12,027,271	122	1 : 98,584
ตะวันออกเฉียงเหนือ	21,848,228	230	1 : 94,992
ใต้	9,467,901	172	1 : 55,046
กลาง	17,255,105	432	1 : 39,942
กรุงเทพฯและปริมณฑล	5,588,222	792	1 : 7,056
รวม	66,186,727	1,748	1 : 37,894



Optometrist in Thailand



GLOBAL HEALTH
IN EYE CARE:
VIRTUAL MEETING

VISION
BEYOND 2021
26 August 2021



Integrated Refractive
and Optical Services



Optometrist

WHO Eye care situation analysis tool (ECSAT)

		Primary level	Secondary level	Tertiary level	Total current year
Total optometrists	□ NA	□ 350 in private sector	Around 30		447

Geographic distribution

BKK 221 = 49.5% Sub Urban 31 = 6.9%
 Central 17 = 3.8% North 22 = 4.9%
 North-East 14 = 3.1% South 17 = 3.8%
 East 8 = 1.8% unspecified 115 = 25.7%



Prasert Padungkiatsakul, OD
Faculty of Optometry,
Rangsit University



Action plan for VISION 2020

- Control of major causes of blindness
- Human resource development
- Provision of appropriate technology and infrastructure

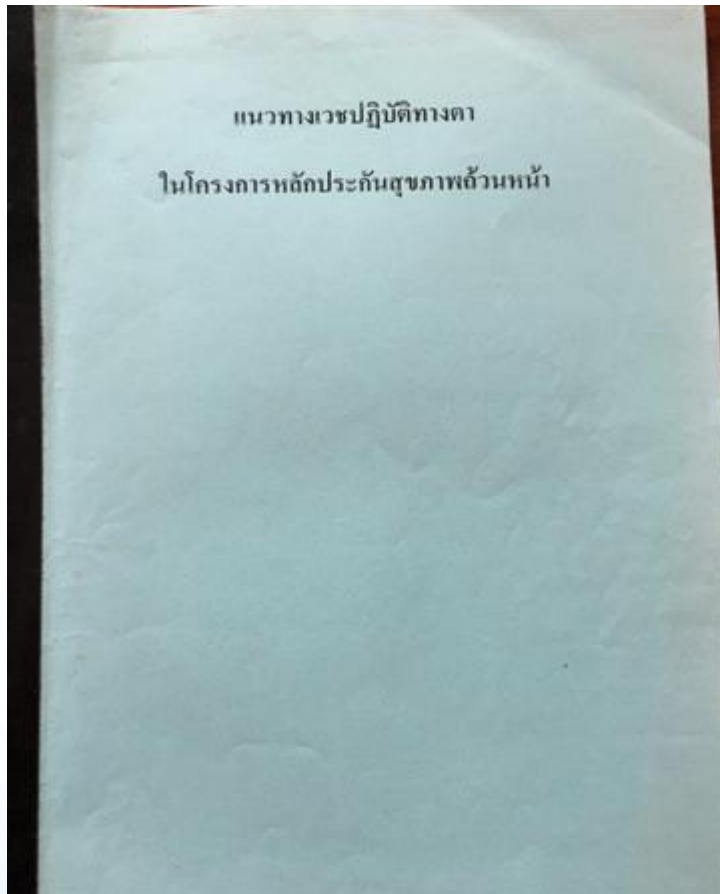
Technology development

- Optimal supply of **appropriate, high-quality, affordable** equipment, instruments, consumables and resource materials essential for the delivery of eye-care services

Infrastructure Development

- Integrate **primary eye care** (PEC) into the primary health care (PHC) system
 - promotion of eye health
 - provision of basic preventive / curative treatment for **common eye disorders**

Common eye problems in PEC *



1. Conjunctivitis
2. Pterygium
3. Cataract
4. Glaucoma
5. Corneal ulcer
6. Uveitis
7. Eye injuries
8. Ocular foreign body



**GLOBAL HEALTH
IN EYE CARE:**
OK! VIRTUAL MEETING

**VISION
BEYOND 2021**
26 August 2021



**World Health Organization
and Thailand Movement in Eye Care**
• Thailand Ways forward:
Proposed Plan of Action

 Health Technology Assessment in Eye Care in Thailand Making the Best Choice for Healthy Investments 26 August 2021 • 15:45-16:05	 Integrated Refraction and Optical Services 26 August 2021 • 14:50-15:15	 World Health Organization and Thailand Movement in Eye Care 26 August 2021 • 13:15-14:43
 Integrated Low Vision Care to Visual Rehabilitation Services 26 August 2021 • 15:15-15:45	 Digital Health in Eye Care 26 August 2021 • 16:05-16:35	 Health Policy 26 August 2021 • 13:15-14:05



Warapat Wongsawad, MD
Mettapracharak
(Wat Rai Khing) Hospital



Faculty of Medicine, Chiang Mai University, Chiang Mai, THAILAND.

S. Ausayakhun, MD, MHSc.



Thank you for your attention



Any questions?

Somsanguan Ausayakhun, MD, MHSc.
Professor Emeritus
Department of Ophthalmology
CMU LASIK CENTER
Center of Medical Excellence
Faculty of Medicine CMU



Faculty of Medicine, Chiang Mai University, Chiang Mai, THAILAND.

S. Ausayakhun, MD, MHSc.





Objectives

After completing this topic, students are able to:

1. Explain the public health ophthalmology concept
2. Describe the definition of blindness and low vision
3. Explain the public health ophthalmology in Thailand, and eye health service plan
4. Describe the strategies for prevention of blindness in vision 2020: The right to sight, then Global health in Eye Care: Vision beyond 2021
5. **Discuss about the AIDS/HIV positive patients and Eye Care**
 - What are the ocular complications in the AIDS/HIV positive patients?
 - How to prevent the ocular complications in the AIDS/HIV positive patients?

