

XXV JOSE RIZAL MEMORIAL LECTURE

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The Blind Filipino: What have we done? What needs to be done?

The Jose Rizal Memorial Lecture was established in 1955 by the Philippine Ophthalmological and Otolaryngological Society, the progenitor of the Philippine Academy of Ophthalmology (PAO), to honor Filipino and foreign ophthalmologists for their work in advancing the science and practice of the specialty. The previous 24 lecturers were honored for their work on specific areas of ophthalmology. Their works, taken collectively, address the social agenda of sight conservation and blindness prevention.

For this edition of the Lecture, we mark a paradigm shift. We will honor the contributions of not one but a group of ophthalmologists—the public service ophthalmologists. I accepted the honor of delivering the XXV Jose Rizal Memorial Lecture in the name of the countless and faceless ophthalmologists and nonophthalmologists alike who have made a collective effort to address sight conservation and blindness prevention as a public health concern.

The choice of this subject is not without reason. One hundred years after our national hero introduced the practice of ophthalmology in this country; 50 years after Filipino ophthalmologists organized themselves; and 25 years after we formulated the National Sight Plan that made us the 51st country to join the World Health Organization (WHO) in the fight against blindness, it is time we ask the question: How have we shown our concern for the blind Filipino?

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THE VISION

On his inauguration as the third president of the Philippine Ophthalmological and Otolaryngological Society in 1950, Dr. Geminiano de Ocampo, the father of Philippine ophthalmology, said: "The ultimate goal of Philippine ophthalmology should be that any Filipino with an eye disease is given adequate treatment, and that no blindness should come to any Filipino [given] the benefit of modern ophthalmologic knowledge and practice."¹

The PAO declares in the preamble to its constitution its goal to build "a blind-free society and establish an organization that shall...implement an integrated and comprehensive plan for sight promotion, sight conservation, blindness prevention, cure, and rehabilitation."²

The public service ophthalmologists have given meaning to this vision and goal. They believe that the sight of the Filipino blind is worth saving and restoring.

Many people often say, "If you are not part of the solution, you are part of the problem." For those who fall short of this vision, I hope this lecture will enlighten them on what they can do to be part of the solution rather than the problem.

In this lecture, I will answer the question: *The Blind Filipino: What have we done? What needs to be done?*

WHAT HAVE WE DONE?

Blindness prevalence in the Philippines has been reduced by 46 percent from 1.07% in 1987³ to 0.58% in 2002 (Olivar-Santos EO. Third National Survey of Blindness Philippines 2002). This rate, however, remains 0.08 percentage point higher than the WHO blindness prevalence goal of 0.5%, and 0.38 percentage point short of the 0.2% prevalence rate in developed countries.

This achievement did not come easy. We have had a long and continuing fight against blindness.

We have tried to sensitize the ophthalmologist and the public on the problem of blindness

- 1930: Blindness: Its causes and prevention (Dr. Conrado Ayuyao)⁴
- 1954: Sight-Saving Week through Presidential Proclamation No. 49¹
- 1959: Prevention of Blindness: A challenge to all (Dr. Antonio Fernando)⁵
- 1959: Preventive ophthalmology in the Philippines (Dr. Edmundo Reyes)⁶
- 1961: On preventive ophthalmology (Dr. Geminiano de Ocampo)⁷
- 1961: The role of the ophthalmologist in the prevention of blindness (Dr. E. Caparas)⁸
- 1978: Sight-Saving Week was expanded to Sight-Saving Month



Alejandro S. De Leon, MD, MHA XXV Jose Rizal Memorial Lecturer

Our XXV Jose Rizal Memorial Lecturer I admire, respect, and love. For all his work much can be said about him.

As a student, our Lecturer possesses that insatiable drive to learn. Beyond being a physician with ophthalmology as his specialty, he holds a degree of Master in Hospital Administration. He has mastered the science and art of management.

As a teacher, he rose from the rank of Instructor to full Professor at the University of the Philippines. He meets Sir William Osler's definition of a great teacher—"a senior student earnestly interested in the welfare of his junior students."

As a researcher, he is Hawking's disciple. He subscribes to the simple truth that man's desire for new knowledge is justification enough for his continuing quest for new knowledge. In his early years, he worked on the immunology of the corneal graft at Hopkins with A. Silverstein and on the retinopathy of prematurity with J. Elliot, both of whom I happened to know.

As an administrator in the academe (UP-Manila) and outside (Department of Health), he is not the pedantic bureaucrat. Nonetheless, he gets work done through people.

He is a planner par excellence.

He is a devoted husband and father. Both his wife, Angie, and his son are ophthalmologists.

I have never known a friend who is as loyal. When I had the opportunity to help establish and organize the Cardinal Santos Department of Ophthalmology, Eye Referral Center, formulate the Philippine Eye Research Institute (PERI) to Institute of Ophthalmology (IO) and craft the Philippine Program of Research in Ophthalmology, our Lecturer was there to lend a helping hand.

In 1993, our Lecturer was the Philippine Society of Ophthalmology Awardee for work on the Prevention of Blindness in the Philippines; the following were the words I said about him: "His is the crisp clarity of intellect, unequalled capacity to translate concepts and ideas into print, tenacity of purpose, and the natural disposition to accomplish work with the quiet dignity of a man to whom material gain and public accolade are strangers—ennobling values he truly embodies."

Is it any wonder then that GOD decided to keep our Lecturer, a Panglossian optimist, to be with us still for him to continue HIS work here on earth? — Salvador R. Salceda, MD

Our leaders have constantly admonished the ophthalmologists, various health workers, and the public on the problem of blindness. We continue this effort of social marketing through the Sight-Saving Month, celebrated every August of each year with scientific meetings, educational forums, radio and television interviews, vision screening, free eye and surgical clinics.

We have defined the magnitude and causes of blindness

- 1969: A survey of blindness in Bay, Laguna (Fojas M, de Ocampo G, Portes J)⁹
- 1976: A study on the incidence of blindness (Alianza LC)¹⁰
- 1977: Frequency of blindness in Davao City (Gestuvo RVG)¹¹
- 1987: The Institute of Ophthalmology blindness survey (Ramirez RL)³
- 1995: Second National Survey of Blindness, Philippines (Olivar-Santos EO)¹²
- 2002: Third National Survey of Blindness, Philippines (Olivar-Santos EO)

Cataract, vitamin A deficiency, trachoma, onchocerciasis, and glaucoma are the leading causes of blindness worldwide. Trachoma and onchocerciasis are not public health problems in the Philippines. We have successfully eliminated blindness due to vitamin A deficiency.

Prior to 1980, numerous definitions of blindness made it difficult to convince decision-makers to take cognizance of blindness and give it priority. Using the 1980 WHO definition of blindness and a prevalence goal of 0.5%, the 1987 First National Blindness Survey showed that blindness was a public-health problem and cataract was the main cause. Thus, we have made the elimination of cataract blindness the centerpiece of our national blindness prevention program.

We have established organizations to address the prevention and elimination of blindness

- 1945: Philippine Ophthalmological and Otolaryngological Society (POOS) – Philippine Ophthalmological Society (POS)/Ophthalmological Society of the Philippines (OSP) – Philippine Society of Ophthalmology (PSO) – Philippine Academy of Ophthalmology (PAO)
- 1959: Philippine Society for the Prevention of Blindness (Severino Lopez)¹³
- 1971: National Council on Blindness (Salvador Salceda)¹⁴
- 1989: Department of Health (DOH) Blindness Prevention Committee¹⁵
- 1995: Philippine Academy of Ophthalmology (PAO) Prevention of Blindness Committee
- 1999: National Committee for Sight Preservation (NCSP) (Evangeline Olivar-Santos)¹⁶

The eye society, civic groups, and nongovernment organizations (NGOs) provided service to the blind Filipino through outreach missions, but these were insufficient to significantly reduce blindness prevalence.

The National Council on Blindness (NCB) composed of professional groups, civic organizations, government agencies, educational institutions and commercial corporations envisioned to bring together those involved in the prevention and elimination of blindness to a common program of action. One of its major accomplishments was the formulation of the National Sight Plan (NSP). Implementation, however, proved difficult.

In 1989, the DOH reformulated the National Sight Plan into the DOH Prevention of Blindness Program. By 1995, the Second National Blindness Survey showed a reduction in blindness prevalence from 1.07% to 0.7%.

In 1992, health services were devolved to local government units and a new organizational structure had to be established. The NCSP composed of key players in the Philippine blindness prevention program was established to take the lead in achieving the goals of Vision 2020.

We have implemented various intervention programs

- 1966: POS operation sight saver¹⁷
- 1970: PSO rural eye clinic¹⁸
- 1973: A rural eye clinic in Ilocos Norte (Olivar EO)¹⁹
- 1974: Christoffel Blinddenmission (CBM) prevention of blindness partners
- 1978: National Sight Plan²⁰
- 1983: Rotary Club Outreach Cataract Clinic (Dr. Edgardo Caparas)
- 1983: Helen Keller International (HKI) Bicol prevention of blindness program²¹
- 1989: DOH Prevention of blindness program¹⁵
- 1990s: Project Sight Restoration²²
- 1995: Lion's Sight First project
- 2000: Vision 2020 Philippines²³

Finding that 75% of eye problems are primary care cases and 50% of the secondary eye cases required surgery, the POS operation sight saver provided eye consultation and surgery for patients and training for local primary physicians. The society's slogan was "Join the rural eye clinic and see the Philippines."

The National Sight Plan formulated by the NCB envisioned 4 operational programs, namely: eye-health education, first contact vision screening and treatment, early diagnosis and treatment, and rehabilitation.

The HKI prevention of blindness program in Bicol was the first attempt to test the National Sight Plan. The project consisted of enhancing the ophthalmic capability of the Bicol Regional Hospital, the training of primary health care workers, vitamin A supplementation, and cataract surgeries.

The DOH blindness prevention program was prompted by the results of the first national blindness survey, which showed blindness prevalence of 1.07%, and the WHO declaration that blindness prevalence higher than 1.0% constituted a public-health problem. The National Sight Plan and the Bicol experience served as models for the 1989 DOH Prevention of Blindness program.¹⁵ It had 4 objectives:

- reduce the cataract backlog,
- reduce the prevalence of vitamin A deficiency,
- integrate primary eye care with primary health care,
- develop the country's capability for eye-care services.

Vision 2020²³ had three strategies:

- disease control program
- human resource needs and development
- infrastructure/technology needs and development

Vision 2020 eyes the reduction of blindness prevalence to 0.5% with no community (province) having a rate greater than 1.0%.

We have increased the ophthalmologic manpower and brought eye care to almost all the provinces

- 1970: Philippine Board of Ophthalmology (PBO) was established (Almeda E)²⁴
- 1973: Common basic course for residents in ophthalmology (Fajardo RV)²⁵
- 1977: Requirements for hospital accreditation of ophthalmology residency training²⁶
- 1977: For more ophthalmology residency positions (Fajardo RV)²⁷
- 1988: Outreach ophthalmology residency program (Fajardo RV)^{28, 29}
- 1982: Ophthalmological manpower development plan in the Philippines (Fajardo RV)³⁰
- 1985: Modified Residency Training Program (Olivar Santos EO)³¹

In the late 1970s, we had one ophthalmologist for every 170,000 Filipinos and 10-15 graduates of ophthalmology per year. The Philippine Board of Ophthalmology took the challenge and set out to increase the residency graduate to 40 per year and improve the ophthalmologist population ratio to 1:100,000.

Today, we have 44 accredited residency training programs producing 60 to 70 graduates per year and an ophthalmologist for every 63,000 people. We have improved the ratio almost threefold.

In 1979, 60% of the provinces were without an ophthalmologist; today only 20% don't have the services of one. These are provinces that are either economically deprived or where the population is too small to warrant an ophthalmologist, or the terrain is too inhospitable, or the peace and order situation is bad.

We have collaborated with various government agencies and nongovernment organizations

Government agencies

- DOH: Vitamin A Supplementation, Measles Immunization, Primary Eye Care, Modified Residency Training Program, Ophthalmologic Services, National Blindness Survey
- Department of Education: School for the Deaf and Blind, Special Education, Munting Doktor
- Department of Social Welfare and Development: Rehabilitation of the Blind
- Commission Concerning Disabled Persons

International organizations and civic groups

- Helen Keller International: Vitamin A Supplementation
- Christoffel-Blindenmission and partners: Cataract Program
- Lions
- Rotary Professional groups and NGOs
- Optometric associations: School vision screening, error of refraction
- EPHPHETA: rehabilitation of the blind
- Resources for the Blind: rehabilitation of the blind
- Sukob
- Cataract Foundation
- Eye Health and Safety Foundation

Before 1979, groups concerned with helping the blind worked independently of each other. The National Council on Blindness and the National Sight Plan were envisioned to provide the mechanism for a collaborative and coordinated program of action but their effectiveness was reduced by lack of a political mandate. The DOH provided the political authority for the Prevention of Blindness program. It highlighted the critical role of the ophthalmologist and the necessary support from nongovernment organizations. With the devolution, the political authority of the DOH has been weakened. As a result, continuity of the program has shifted to the National Committee for Sight Preservation under the PAO leadership.

We have provided low vision services in collaboration with other groups

- EPHPHETA
- Resources for the Blind
- School for the Deaf and Blind
- Department of Social Welfare and Development (DSWD) Bureau of Rehabilitation
- 1968: Philippine Eye Research Institute (PERI) low vision clinic³²
- 1991: Philippine General Hospital (PGH) low vision clinic
- 2001: St Luke's low vision clinic

The number of Filipinos with irreversible blindness and low vision has been increasing because of diabetic retinopathy, age-related macular degeneration, and glaucoma. In the past, this group of patients was served by nonophthalmologists. However, ophthalmologists are sub-specializing in the rehabilitation of the visually impaired and providing services for low vision.

We have documented the eye care and prevention of blindness movement in the Philippines.

- 1978: Eye Health Care Movement in the Philippines³³
- 1997: A Century of Ophthalmology in the Philippines³⁴
- 2000: The Work on the Prevention of Blindness in the Philippines: Its Evolution³⁵

10 LESSONS LEARNED

1. Eye health education has not been successful. Urine is still used for red eyes, iridology is popular, patients consult late, and many misconceptions still persist.

2. Cataract remains the major cause of blindness.

3. The ophthalmologist is crucial in the elimination of avoidable blindness but they cannot achieve it alone.

4. We are producing enough ophthalmologists, but maldistribution remains a problem.

5. Cataract surgical services are available, accessible, and acceptable but not affordable for many. Misconceptions about cataract and cataract surgery persist.

6. Cataract surgery rate (CSR) has to increase to reduce the cataract backlog and meet the incidence of new cases associated with an ageing population.

7. The emerging problems of glaucoma, diabetic retinopathy, and age-related macular degeneration have to be confronted.

8. New and innovative operational approaches have to be developed.

9. The needs of the economically deprived blind population have to be met.

10. We don't have enough resources to finance the program to eliminate avoidable blindness.

Table 1. Causes of visual impairment in the Philippines

Population	1987 ³		1995 ¹²		2002 ¹¹	
	60M	Number	68M	Number	79.5M	Number
	Prevalence % (Rank)	Number	Prevalence % (Rank)	Number	Prevalence % (Rank)	Number
Cataract	1.24 (1)	744,000	2.97 (1)	2,032,193	1.83 (2)	1,455,049
Error of refraction			1.09 (2)	745,822	2.06 (1)	1,638,592
Amblyopia/strabismus	0.11 (3)	66,000			0.04 (8)	34,581
Glaucoma	0.07 (6)	42,000	0.16 (3)	109,478	0.09 (6)	71,821
Corneal opacity/staphyoma	0.04 (7)	24,000	0.14 (4)	95,794	0.09 (6)	69,161
Disorganized eyeball/enucleated	0.08 (5)	48,000	0.12 (5)	82,109	0.10 (5)	82,461
Uncorrected aphakia			0.11 (6)	75,266	0.04 (8)	34,581
Retinal/macular disease	0.13 (2)	78,000				
Chorioretinitis			0.04 (9)	27,370		
Vascular retinopathy			0.02 (10)	13,684		
Retinopathy					0.11 (4)	85,121
Macular degeneration			0.07 (7)	47,897	0.16 (3)	127,682
Optic atrophy	0.10 (4)	60,000	0.05 (8)	34,212	0.06 (7)	47,880
Anterior uveitis			0.01 (11)	6,842	0.01 (9)	5,320
Others			0.09	61,582	0.03	18,620
Total	1.77	1,062,000	4.87	3,332,249	4.65	3,696,920

*Causes of binocular and monocular blindness only

**Olivar-Santos EO, Third National Survey of Blindness Philippines, 2002

Table 2. Cataract blindness in the Philippines

Population	1987 ³		1995 ¹³		2002 ⁴	
	60M	Number	68M	Number	79.5M	Number
	Prevalence %	Number	Prevalence %	Number	Prevalence %	Number
Blind, bilateral	0.93	558,540	0.54	369,490	0.36	287,285
Blind, mono.	0.31	186,000	0.28	191,587	0.51	
Blind, Low vision			0.33	225,115		
Low vision, bilateral			1.29	882,670	0.64	
Low vision, monocular			0.52	358,542	0.32	252,704
Total cataract cases		744,540	2.97	2,032,193	1.83	
Cataract cases/million				29,885		18,030
Estimated incidence				403,920	0.37	
Estimated CSR/million				440		630

CSR: Cataract surgery rate

WHAT NEEDS TO BE DONE?

Worldwide, the leading causes of blindness are trachoma (146 million cases), vitamin-A deficiency (75 million), cataract (16-20 million), onchocerciasis (17 million), and glaucoma (5 million).²³ In the Philippines, cataract remains the major cause of blindness.

Other emerging causes are corneal scar, diabetic retinopathy, age-related macular degeneration, childhood blindness other than xerophthalmia, error of refraction and presbyopia, and rehabilitation of the low-vision and blind patients. The Third National Survey on Blindness showed: error of refraction, glaucoma, retinopathy/maculopathy, and corneal scars as major targets of concern.

Causes of visual impairment

While the three national blindness surveys are not comparable, they show a trend in the causes of visual impairment: cataract is decreasing, error of refraction now ranks first, macular and retinal problems have dislodged glaucoma and corneal opacity in the third and fourth spot, and optic atrophy remains a concern (Table 1).

Cataract blindness

The prevalence of operable cataract was reduced by 22.88% and the cataract cases per million by 35.75%. The estimated cataract surgery rate per million has increased by 43.18% (Table 2).

Table 3. Ophthalmic services in the Philippines

Population	1978 ²⁰		1987 ¹⁵		1995 ³⁷		2002 ³⁸	
	36.5M	Number	60M	Ratio	68M	Number	79.5M	Ratio
No. eye MDs	213		350		884		1267	
No. training programs	5		27		44		44	
No. graduated/yr	10		34		66		70	
Prov. w/o eyeMD	45/75	60.0%	32/75	42.7%	17/75	22.7%	16/78	20.5%
Eye MD:pop ratio	213	1:170,000	350	1:170,000	884	1:78,000	1267	1:63,000
Region I	2	1:1,493,000	18	1:197,000	36	1:106,000	51	1:82,000
Region II	4	1:419,000	9	1:260,000	22	1:115,000	20	1:141,000
Region III	20	1:185,000	17	1:365,000	79	1:88,000	76	1:106,000
Region IV	4	1:831,000	23	1:359,000	82	1:121,000	131	1:90,000
Region V	6	1:494,000	10	1:391,000	22	1:197,000	21	1:223,000
Region VI	14	1:257,000	15	1:359,000	39	1:148,000	53	1:117,000
Region VII	2	1:1,190,000	21	1:219,000	55	1:91,000	57	1:100,000
Region VIII	10	1:303,000	7	1:436,000	9	1:374,000	22	1:300,000
Region IX	6	1:328,000	5	1:492,000	21	1:133,000	14	1:221,000
Region X	10	1:221,000	10	1:220,000	26	1:96,000	20	1:137,000
Region XI	6	1:1,024,000	17	1:240,000	31	1:148,000	53	1:98,000
Region XII	1	1:805,000	3	1:678,000	11	1:214,000	9	1:289,000
CAR			8	1:143,000	12	1:104,000	14	1:97,000
NCR	128	1:39,000	185	1:43,000	388	1:24,000	452	1:22,000
CARAGA			1	1:1,764,000	6	1:324,000	8	1:262,000
ARRM			1	1:1,837,000	6	1:337,000	8	1:302,000

Ophthalmic services

The ophthalmologist-population ratio has improved over the years, but ophthalmologists are unevenly distributed, resulting in an oversupply of eye doctors in some areas (Table 3). On the other hand, many provinces still have no ophthalmologist, although the population of some of these provinces is too small to support even one ophthalmologist.

Stages of eye care programs

Dr. Kazuichi Konyama³⁶ identified 4 stages in the development of blindness prevention programs:

- Preplanning Stage where domestic capability is minimal and international NGOs provide humanitarian services;
- Primary Health Care/Primary Eye Care/Prevention of Blindness stage where primary eye care is integrated with primary health care and disease-oriented vertical programs are developed;
- Eye Health-Care System Stage where eye care is integrated into the health-care system; and
- Noncommunicable Disease-Control Scheme Stage where the challenge is how to deal with noncurable blindness like glaucoma, diabetic retinopathy, age-related macular degeneration.

Table 4. Overall strategies of Vision 2020

Strategy	Specific	Vision 2020 WHO	Vision 2020 Philippines
Overall objective		<ul style="list-style-type: none"> • Eliminate avoidable blindness 	<ul style="list-style-type: none"> • Reduce blindness prevalence to 0.5%, then 0.2%
Control of major causes of blindness	Cataract	<ul style="list-style-type: none"> • 0% prev. rate • CSR = 4000/M • 0 cases of TF • 5% TF rate • No new cases • Nil incidence • 0.4/1000 	<ul style="list-style-type: none"> • Less than 0.50% • CSR=3000/M • Not applicable
	Trachoma		<ul style="list-style-type: none"> • Not applicable • Nil incidence • 0.4/1000
	Onchocerciasis		
	Vit A deficiency		
	Blind children		
Human resource development	Primary health care worker	<ul style="list-style-type: none"> • PEC integrated with PHC • 1: 50 000 	<ul style="list-style-type: none"> • PEC integrated with PHC
	Ophthalmic/medical assistants/nurses		<ul style="list-style-type: none"> • PMEC trained
	Refractionists		<ul style="list-style-type: none"> • Not available
	Ophthalmologists		<ul style="list-style-type: none"> • 1: 50 000
Infrastructure and appropriate technology development	Primary level (RHU/BHS)	<ul style="list-style-type: none"> • screening/case referral • health education • primary treatment 	<ul style="list-style-type: none"> • screening/case referral • primary treatment
	Subdistrict (District Hosp)	<ul style="list-style-type: none"> • outreach cataract surgery • refraction services 	<ul style="list-style-type: none"> • primary medical eye care • refraction services • outreach cataract surgery • eye center
	District (Province)	<ul style="list-style-type: none"> • cataract surgery • training • refraction • outreach activities • coordination • cost effectiveness 	<ul style="list-style-type: none"> • outreach activities • integration and coordination • cost effectiveness • equity
	Technology		

TF: Trachoma

PEC: primary eye care

PHC: primary health care

PMEC: primary medical eye care

RHU: rural health unit

BHS: barangay health station

Operational paradigm

How then can we achieve the objectives of Vision 2020 (Table 4)?

First, prevention of blindness (PBL) planners must take heed of the ten lessons we have learned.

Second, PBL planners must review the 1978 National Sight Plan and the DOH 1989 Prevention of Blindness Program. In these documents unimplemented ideas such as eye health education, primary medical eye care, screening and referral system, support and research program can be reassessed.

Third, use the systems paradigm for detailing the operational projects. The essential components of the system are:

1. define the desired output (year-round public eye health education)

2. define the demand subcomponent system:

- identify the target demand groups (C, D, and E economic brackets, particularly mothers)
- identify the process (radio and television)
- identify the input messages

3. define the core system process (for example, pattern after the *Kapwa Ko Mahal Ko* or *Damayan* radio-TV program)

4. define the core system inputs:

- radio-TV carrier
- ophthalmologist who will provide the service and the educational messages
- program host
- program venue (studio or on site or both)
- program sponsors

5. define the management subsystem component (professional producer)

Fourth, I endorse the PAO-Prevention of Blindness Committee strategy of "my community, my responsibility."

I believe that:

1. The goal of this strategy is "people empowerment and universal access to eye care."

2. People empowerment means an educated populace who take responsibility for their eye health. Activities to achieve this include:

- Year-round public eye health education
- Eye-health education in the elementary and secondary level
- Eye safety program
- Eye health education on the web

3. Universal access to eye care means availability of quality services when needed, where needed. It means having an integrated eye care delivery system. It means equity for all irrespective of financial capacity.

4. An integrated eye care delivery system shall consist of:

- Integration of primary eye care (PEC) with primary health care (PHC);
- PEC screening/treatment and referral at the rural health unit (RHU) level;
- Station eye clinic at the district level providing primary medical eye care (PMEC), with refraction, and regular, scheduled ophthalmic services; and
- Comprehensive eye care service at the provincial level with subspecialty ophthalmic group practice

5. Equity for all can be achieved through:

- Advocacy for the implementation of the government's universal health insurance program;
- Advocacy for community-based health maintenance scheme; and
- Foundation and donations

Fifth, geographically individualized programs (region or province) may be the better option for some compo-

nents and a common national program for other components. For example: The cataract program and the development of the eye-care system may be a local concern, but eye-health education and universal health insurance must be a national concern.

CONCLUSION

We have succeeded in reducing the prevalence of blindness from 1.07% to 0.58%. We achieved this by focusing on the problem of cataract, increasing and distributing the ophthalmologic manpower, and enhancing the cost-effectiveness of eye-care service delivery.

Dr. Gemiliano Ocampo's vision of no Filipino becoming blind given the benefits that ophthalmic care offers remains a dream. The prevalence of blindness has to be reduced not to 0.5% but to less than 0.2%. The program must address not only the cataract problem but also the emerging causes of blindness. The program must also have an implementing organizational structure.

Here's what I think should characterize a dream prevention of blindness program (Cadiz M., A profile of the practice of ophthalmology in the Philippines, 2003):

- *To have an educated population responsible for sight conservation and blindness prevention.* Eye-health education must start with elementary education and be continually reinforced throughout life.
- *To have ophthalmologists in every community who are part of the solution.* They hold the key to the establishment of an eye-care delivery system.
- *To have a complete range of eye services available and accessible.* Data have shown that the expertise of an ophthalmologist is required in only 25% of eye conditions.²¹ Trained primary eye-care workers, midlevel eye-care workers, and nonophthalmic physicians can adequately handle the rest. The eye care delivery system will consist of various levels of facilities and expertise linked by a referral system.
- *To make eye-care services affordable and acceptable.* Nonconventional methods of continuing education and referral should be explored, particularly the use of information technology. Cost effectiveness should be included as a criterion in the formulation of practice guidelines. Innovative payment schemes, not dependent on government subsidy or donations, need to be explored.
- *To have an eye-care system that is effective, efficient and equitable.* This system will be fine-tuned at each operational level.

References

1. De Ocampo GT. *Memoirs of Geminiano de Ocampo*. National Academy of Science and Technology 1986; 131.
2. Constitution of the Philippine Academy of Ophthalmology
3. Ramirez RL. The Institute of Ophthalmology blindness survey 1987: Monograph in Philippine Ophthalmology. Vol II. Institute of Ophthalmology/ *Philipp J Ophthalmol* 1990; 19: 1-3.
4. Ayuyao C. Blindness: Its causes and prevention. *PSJDH* 1930; 4:110.
5. Fernando AS. Prevention of blindness: A challenge to all. *Philipp J Ophthalmol Otolaryngol* 1959; 11:44.
6. Reyes E. Preventive ophthalmology in the Philippines. *Philipp J Ophthalmol Otolaryngol* 1959; 11:57.
7. De Ocampo G. On preventive ophthalmology. *Philipp J Surg & Surg Sp* 1961; 16:285.
8. Caparas E. The role of the ophthalmologist in the prevention of blindness. *J Philipp Med Assoc* 1961; 37:967.
9. Fojas M, de Ocampo G, Portes J. A survey of blindness in Bay, Laguna. A preliminary report. *Philipp J Ophthalmol* 1969; 1:14-19.
10. Alianza LC. A study on the incidence of blindness: A preliminary report of 180 cases. *Philipp J Ophthalmol* 1976; 8:67.
11. Gestuso RMG. Frequency of blindness in Davao City. *Philipp J Ophthalmol* 1977; 9: 132.
12. Olivar-Santos EO. Second National Survey of Blindness in the Philippines 1995. *Philipp J Ophthalmol* 2000; 25:Suppl.
13. Caparas ET. Philippine Society for the Prevention of Blindness. *Philipp J Ophthalmol* 1979; 11: 85.
14. Salceda SR. The National Council on Blindness. *Philipp J Ophthalmol* 1971; 3:118.
15. DOH Prevention of Blindness Program-1989, *Philipp J Ophthalmol* 1990; 19:79.
16. Articles of Incorporation. National Committee for Sight Preservation Foundation Inc.
17. Almeda E. A short background on operation sight saver. *Philipp J Surg & Surg Sp* 1966; 21:201.
18. Fajardo RV. The rural eye clinic. *Philipp J Ophthalmol* 1970; 2:40.
19. Olivar EO. A rural eye clinic in Ilocos Norte. *Philipp J Ophthalmol* 1973; 5:149.
20. National Sight Plan 1978. *Philipp J Ophthalmol* 1978; 4: 135-153.
21. Olivar-Santos EO. Assessment of eye problem in Bicol. *Philipp J Ophthalmol* 1987; 16:60.
22. Ramirez RLA, et al. Sight restoration in the Philippines through cataract surgery. *Philipp J Ophthalmol* 2002; 27:129.
23. Global initiative for the elimination of avoidable blindness. WHO/PBL/97.61
24. Almeda E. Philippine Board of Ophthalmology. *Philipp J Ophthalmol* 1972; 4:18.
25. Fajardo RV. Common basic course for residents in ophthalmology. *Philipp J Ophthalmol* 1973; 5: 53.
26. Requirements for hospital accreditation of ophthalmology residency training. *Philipp J Ophthalmol* 1977; 9: 150-152.
27. Fajardo RV. For more ophthalmology residency positions. *Philipp J Ophthalmol* 1977; 9: 142.
28. Fajardo RV. Outreach ophthalmology residency program: Inverted T-approach. *Philipp J Ophthalmol* 1988; 17:35.
29. Fajardo RV. Outreach ophthalmology residency program: Extended E-approach. *Philipp J Ophthalmol* 1988; 17:108.
30. Fajardo RV. Ophthalmological manpower development in the Philippines. *Trans APAO* 1982; 8: 886.
31. Olivar-Santos EO. Role of the modified residency training program in ophthalmology in the prevention of blindness in the Philippines. *Philipp J Ophthalmol* 2000; 25: 32.
32. Ramos-Cortes E. A low vision clinic in the Philippines. *Philipp J Ophthalmol* 1972; 4: 128.
33. Salceda SR, Apelo B. *Eye Health Care Movement in the Philippines*. IO Publication. 1978
34. Salceda SR. A century of ophthalmology in the Philippines. Part I: *Philipp J Ophthalmol* 2001; 26: 31, Part II: *Philipp J Ophthalmol* 2001; 26:100, Part III: *Philipp J Ophthalmol* 2001; 26:174.
35. Salceda SR. The work on the prevention of blindness in the Philippines: Its evolution. *Philipp J Ophthalmol* 2001; 26:154.
36. Konyama K. Review of Regional Development Programs: Two decades of the regional activities and prospects in the new century. *Proceedings, XVII APAO Congress* 1999.
37. PSO Prevention of Blindness Committee Report – 1996.
38. De Leon, AS. PBL: Challenges past and future. *Philipp J Ophthalmol* 2001; 26: 165.

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