



Vision Centre Manual

A VISION 2020: The Right to Sight INDIA Publication

Developed by

VISION 2020: The Right to Sight India
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December 2011

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December 2011

Developed by
Community Ophthalmology Unit,
Dr. R.P. Centre for Ophthalmic Sciences,
AIIMS, New Delhi, India

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Government of India
Ministry of Health & Family Welfare
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MESSAGE

The concept of Vision Centre is well known and such centres exist in a few places. However, we need much more attention to the subject of eye care at the primary health level along with creation of awareness regarding newer non-communicable eye diseases such as diabetic retinopathy and glaucoma. Vision Centres, if set up on a larger scale, will be a very effective way of reaching sections of the population who currently do not have adequate eye care. Such centres can attend to refractive error correction, supply of spectacles and identification of conditions such as cataract and corneal opacities.

The Vision Centre Manual has been carefully prepared with attention to every detail of lay out, functions, equipment and inventory of medicines. Such Vision Centres are essential if we are to realise our objective of comprehensive eye care at the primary level.



KESHAV DESIRAJU

Place: New Delhi

Date: 8th December, 2011



Gullapalli N Rao, MD
Chairman

September 27, 2011

FOREWORD

Thanks for asking me to write the foreword for the “Vision Centres” manual. When we begun with the concept about 15 years ago, there was lot of doubt about the validity of this but I am delighted that it has indeed come to manifest the aspiration expressed in the World Health Report on “Primary Health Care”. This was to provide “Service to a finite population with permanent commitment to the population with appropriate infrastructure and trained human resources drawn from local communities”. Today this is being replicated all over India, South East Asia and Africa. In our own experience, we had the privilege of serving the most marginalized of our people in remote rural and tribal areas offering high quality primary eye care. Based on our recent experience, these centres also have the potential to play a catalytic role in comprehensive community development in rural areas.

I am delighted that “VISION 2020: The Right to Sight – India” has commissioned this very useful manual that can act as a toolkit for the development and operations of vision centres, albeit, with some local modifications in different settings.

Warmest regards,



GULLAPALLI N RAO

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Affiliated to
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Probably, since cataract blindness was so common the eye care services in the country began and grew essentially as a secondary level care in the hierarchy of medical services. As the new developments and technology emerged the eye care discipline grew the direction of tertiary care. It is only with the advent of the global initiative VISION 2020-The Right to Sight which depended on universal coverage to meet its goal of eliminating avoidable blindness that primary eye care started surfacing as an important strategy. While this started manifesting in multiple modalities such as community level screening by health workers in primary health care and so on, the need was felt for permanent structures to provide primary eye care services on a regular basis in the community. Elsewhere in other countries like in Nepal due to paucity of ophthalmologist in the 1980s, what is recognized today as a primary eye care centres happened by default with well-trained Ophthalmic Assistants providing the basic eye care including refraction services in fixed facilities in rural area. As the concept started taking root, several models started to emerge in India resulting in a variety and richness in experiences. In the XI Five year plan the Government of India, made the establishment of primary eye care centres, an integral strategy of the overall national plan. Through the development of the cadre called as the "Paramedic Ophthalmic Assistants" (PMOA), the government initiated the concept of primary eye care in fixed facilities by posting the PMOAs in primary health centres with the required equipment and physical infrastructure. The non government sector on the other hand developed this concept under the name of Vision Centres with varying strategies relating to ownership of these centres, staffing and technologies deployed.

It is in this context that this manual on Vision Centres become hugely relevant as the country is gearing itself to significantly scale up this concept. This Vision Centre Manual is a timely document which has attempted to consolidate the current experience and provides broad guidelines as well as adequate details for the establishment and running of a Vision Centre.



Mr. R.D. Thulasiraj
Executive Director,
Aravind Eye Care System





MESSAGE FROM STANDARD CHARTERED BANK

Seeing is Believing is Standard Chartered's global initiative to tackle avoidable blindness, and reflects the Bank's brand promise to be 'Here for good'.

Seeing is Believing works in partnership with the International Agency for the Prevention of Blindness (IAPB) and leading eye care NGOs to deliver a high-scale, high-impact programme across the Bank's global footprint, including India. Globally since 2003, we have raised US\$37 million and helped 25 million people including supporting 2.7 million cataract operations and distributing 126,000 pairs of glasses.

However, we know numbers are only part of the story. With over 15 million blind people, India accounts for a third of the world's avoidable blindness. In order to tackle an issue of this magnitude and complexity a clear strategy is needed. As a corporate donor and long-term investor in VISION2020: The Right to Sight, we believe that tackling avoidable blindness means moving beyond sponsoring one-off interventions to support comprehensive eye care systems which create a sustainable basis for combating avoidable blindness now and in the future. In other words we need to look at investing in longer-term approaches, not just financing current needs when that need continues to grow.

What then are the long-term investment vehicles for avoidable blindness? Like other investment decisions, we look at the level of return, risk associated with the investment, and the consistency of return. To this end, vision centres represent an exciting investment vehicle for a donor looking to make an impact on the campaign against avoidable blindness.

- **Return:** Providing primary eye care in community hubs, vision centres can stimulate demand for eye care services and reach more people more regularly than traditional outreach approaches, such as eye camps. They also drive referrals to secondary and tertiary centres.
- **Risk:** As a permanent body, vision centres provide an appropriate and customised refractive error service to people in need, as well as follow-up for people who have had eye surgeries. This can greatly enhance the quality of eye care outcomes and ensure people receive treatment appropriate to need.
- **Consistency:** By being embedded in the community and focusing on financial sustainability from the start, vision centres should be able to deliver services long into the future, ensuring that community eye care interventions are not just a temporary flash in the pan.

When we first started funding vision centres, we thought the model was promising but needed wider testing. The first vision centres were in the south of the country. Like having an investment strategy, we needed to see what aspects could be replicated in other geographies and what needed to be tweaked or changed. Working with IAPB, we funded Indian partners to trial the vision centre model areas where it was less tested, such as Maharashtra, Delhi, UP, Haryana, Rajasthan, Madhya Pradesh and West Bengal. By doing this, we hoped to determine what really works and spread good practice.

Seeing is Believing provides funding for the first two years of a vision centre's operation, covering start-up costs such as training of vision technicians, capital costs such as equipment and initial services; but then we expect these vision centres to continue to operate beyond the financial horizon of our investment. Strong financial planning is vital to ensure that the care provided is affordable (or free) to those who need it through the vision centre but that a strategy is in place to ensure the vision centre can cover its own running costs.

Vision centres are focused and cost-effective investments which resonate with Standard Chartered's approach to business. We believe that rigorous, locally adapted approaches to community eye care provision, as embodied in the vision centre model, will be the key to addressing eye care needs in the long-term. So long as the evidence is there, we will continue to invest in such approaches through Seeing is Believing.



Neeraj Swaroop
Regional Chief Executive, India and South Asia
Standard Chartered Bank

For more information on Seeing is Believing visit <http://seeingisbelieving.org.uk/>



It gives me a great pleasure to release the Vision Centre Manual. I am thankful to R. P. Centre for Ophthalmic Sciences, AIIMS, New Delhi and Prof. GVS Murthy and Prof. T. P. Das for developing and editing the manual. The concept of vision centre has been implemented at various NGO and government level since few years, but need further increase to a larger area to give universal coverage with maximum outreach. The vision centre would serve to be most essential link between primary eye care and secondary / tertiary level by establishing links and referrals. It will be an asset to identify eye diseases like cataract, supply glasses to needy and help in creating awareness regarding diabetic retinopathy, retinopathy of prematurity, etc. Vision Centre Manual has been prepared with details of infrastructure, HR, equipment and requirements and these guidelines would serve to bring in quality in eye care at primary level.

Regards



A handwritten signature in black ink, appearing to read "M. Deshpande".

Dr. Col. M. Deshpande (retd.)
President, VISION 2020: The Right to Sight – India
Chief Medical Officer, H.V. Desai Eye Hospital

| List of Abbreviations

CHC	: Community Health Center
CO	: Corneal Opacity
IEC	: Information, Education, Communication
IPD	: Inter pupillary distance
MCH	: Maternal and Child Health
MLOP	: Mid level ophthalmic personnel
NGO	: Non Governmental Organization
PCO	: Posterior Capsular Opacification
PHC	: Primary Health Center
OP	: Out patient
PMT	: Post Mydriatic Test
RE	: Refractive Error

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1

Background

Probably, since cataract blindness was so common the eye care services in the country began and grew essentially as a secondary level care in the hierarchy of medical services. As the new developments and technology emerged the eye care discipline grew the direction of tertiary care. It is only with the advent of the global initiative VISION 2020-The Right to Sight which depended on universal coverage to meet its goal of eliminating avoidable blindness that primary eye care started surfacing as an important strategy. While this started manifesting in multiple modalities such as community level screening by health workers in primary health care and so on, the need was felt for permanent structures to provide primary eye care services on a regular basis in the community. Elsewhere in other countries like in Nepal due to paucity of ophthalmologist in the 1980s, what is recognized today as a primary eye care centres happened by default with well-trained Ophthalmic Assistants providing the basic eye care including refraction services in fixed facilities in rural area. As the concept started taking root, several models started to emerge in India resulting in a variety and richness in experiences. In the XI Five year plan the Government of India, made the establishment of primary eye care centres, an integral strategy of the overall national plan. Through the development of the cadre called as the “Paramedic Ophthalmic Assistants” (PMOA), the government initiated the concept of primary eye care in fixed facilities by posting the PMOAs in primary health centres with the required equipment and physical infrastructure. The non government sector on the other hand developed this concept under the name of Vision Centres with varying strategies relating to ownership of these centres, staffing and technologies deployed.

It is in this context that this manual on Vision Centres become hugely relevant as the country is gearing itself to significantly scale up this concept. This Vision Centre Manual is a timely document which has attempted to consolidate the current experience and provides broad guidelines as well as adequate details for the establishment and running of a Vision Centre.

2

Need for Vision Centres

- Many of the existing strategies focus primarily on cataract as a cause of blindness and are lacking in a comprehensive approach in the rural community
- The existing outreach approaches are not serving the community on a permanent basis. It is reported that <10% of the people who need eye care access these temporary eye care services
- Populations in rural areas and urban slums do not have access to affordable basic eye care services
- Avoidable blindness and visual impairment can only be tackled by comprehensive eye care services
- 80% of blindness and severe visual impairment is avoidable (preventable or curable)
- Incurably blind need rehabilitation services of which they are not aware
- 80% of eye problems can be either diagnosed and treated, or diagnosed and referred by adequately trained personnel at primary level. The remaining 10 to 20% of the patients may require cataract surgery or any other specialty services in a secondary or tertiary care centre
- Existence of primary eye care centers (vision centers) can serve the community in a cost effective manner
- Vision centers help in providing a referral system
- People do not need to travel far for basic eye care services
- 60-70% of blindness is due to cataract and 20% due to uncorrected refractive errors
- 70% of low vision is due to uncorrected refractive errors
- 25% of the people have some eye problem at any point in time

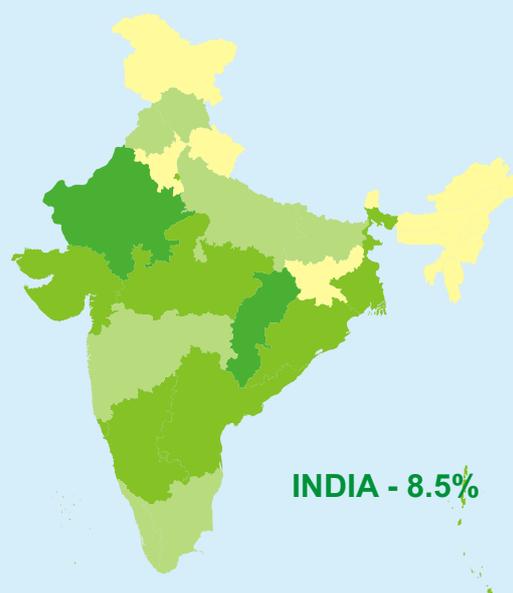
Eye Condition	Prevention	Early Detection & Diagnosis	Fist Line Treatment / Management	Referral
Refractive Errors		Yes	More than 90%	<10%
Cataract		Yes	Counseling	All operable
Vitamin A deficiency	Nutrition education & supplementation	Yes	Yes	Corneal involvement
Trachoma / Conjunctivits	Safe water; Sanitation; Personal hygiene	Yes	Yes	Significant corneal involvement
Glaucoma		Family history; 40+		To establish diagnosis and treat
Diabetic Retinopathy	Exercise; Diet	Screen diabetics		To establish diagnosis and treat
Trauma	Health education	Yes	Emergency care	To establish diagnosis and treat
Low Vision		Yes		Yes
Hereditary		Yes		Yes

3

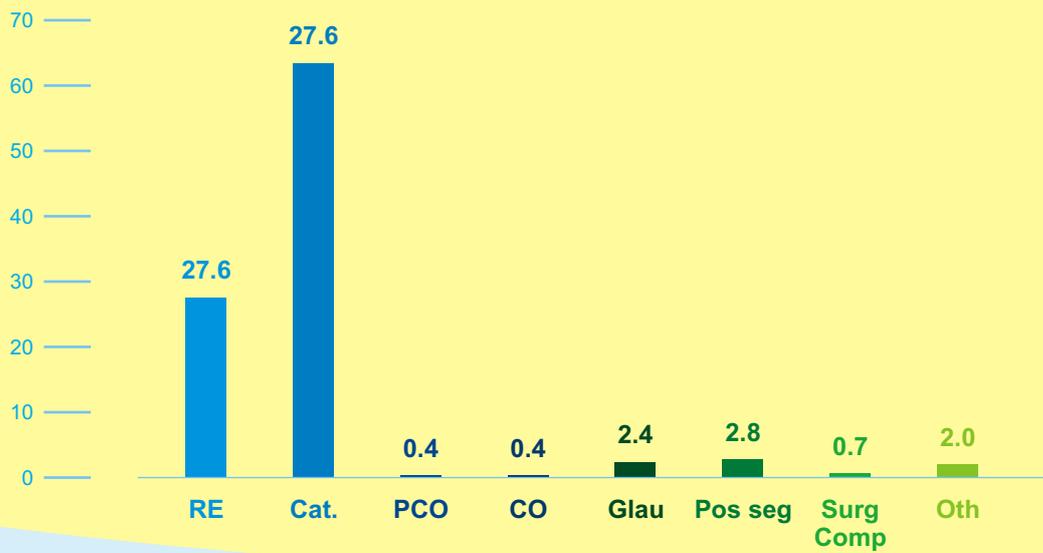
Profile of blindness in India

Source	No. of Blind / 100,000 Population	% Blind	Estimated (Millions)
1921 Census	172	0.17	-
Bhore Committee (1984)	500	0.50	2.0
Trachoma Pilot Project (1956)	1000	1.00	4.5 (VA < 2/60)
ICMR (1971-1973)	1300	1.30	9 (VA < 6/60) 3.14 (VA < 6/60)
National Sample Survey (1986-89)	-	-	3.47 (VA < 3/60)
WHO - NPCB Survey (1986-89)	1490	1.49	12 (VA < 6/60)
NPCB Survey (1999-2001)	1300	1.30	13 (VA < 6/60)
Rapid Assessment (2007)	1050	1.05	12.6 (VA < 6/60)

Prevalence of blindness (< 6/60) (1999-2001)

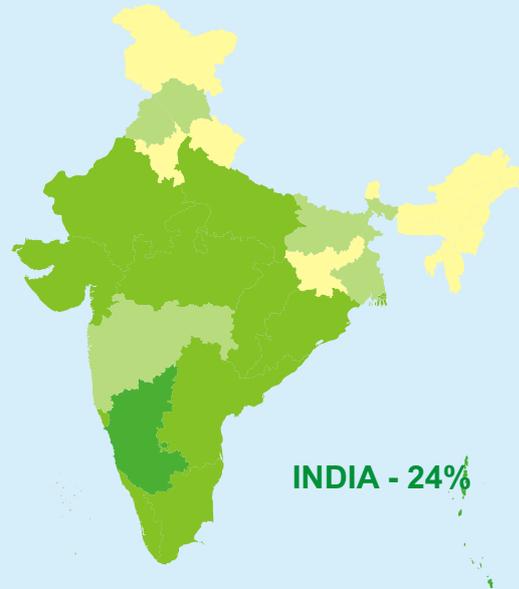
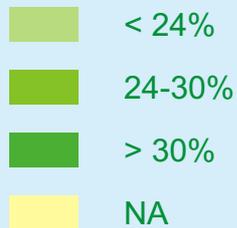


Causes of blindness (< 6/60 Better Eye) (1999-2001)

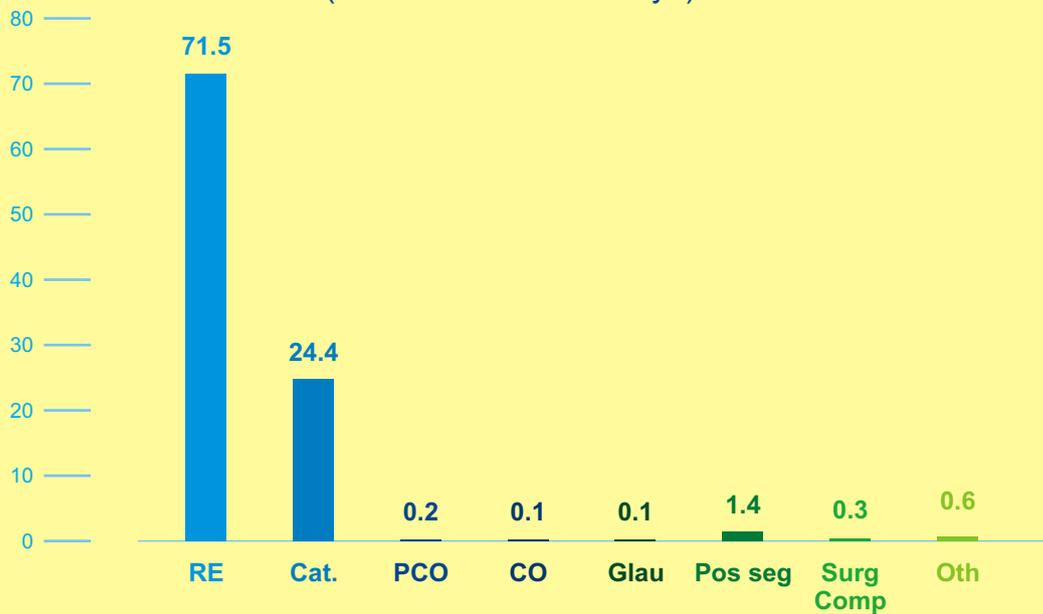


Prevalence of low vision (< 6/18 - 6/60)

< 6/18 - 6/60



Causes of low vision (< 6/18 - 6/60 Better Eye)

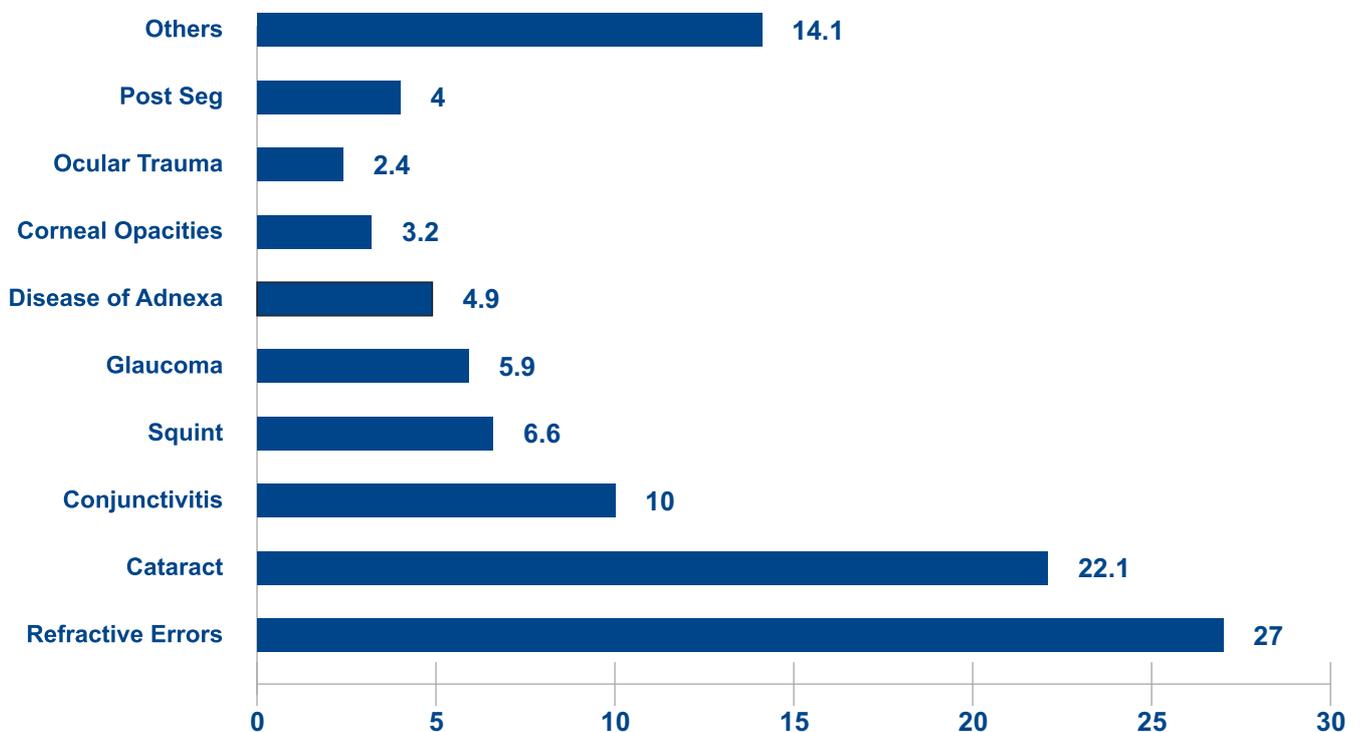


4

Ocular morbidity in India

Refractive errors are one of the commonest causes of ocular problems in India

Ocular morbidity at out patient clinics in sentinel units (2004)



In our community, cataract and uncorrected refractive errors are the most common causes of blindness and low vision. Nearly 1 of 4 blind persons suffers from refractive errors while 3 of 4 persons with low vision suffer from a refractive error. The data of the 25 surveillance units in the country indicates that refractive errors are the commonest eye problem for which people consult ophthalmologists at eye hospitals.

Since communities do not have access to eye services, it is important to provide comprehensive eye care services (preventive, curative and rehabilitative) at peripheral units like vision centers. Cataract has come down as a proportion to the total blindness because of a systematic approach by government and non-governmental organizations across the country for more than two decades. Similarly provision of good primary eye care services can reduce the prevalence of other causes, especially refractive errors, to a large extent over a period of time and it could be linked with existing primary health care for better access and prevention of eye problems at an early stage.

Primary Health Care Interventions	Impact On Eye Health Status
Provision of water	Reduced trachoma, Vitamin-A deficiency
Environmental sanitation	Reduced trachoma & Vitamin-A deficiency
Eye health education	Reduces prevalence of all diseases
Nutrition and food production	Influences Vitamin-A deficiency, Cataract, Diabetic retinopathy
MCH and family spacing	Positive impact on Vitamin-A deficiency
Immunization	Measles vaccine prevents Vitamin-A blind
Control of communicable diseases	Affects leprosy, trachoma, Vitamin-A deficiency and congenitally acquired blindness
Control of locally endemic diseases	Affects congenital blindness
Provision of essential drugs	Affects leprosy, Vitamin-A deficiency, trachoma, ocular injuries

5

What is a Vision Center?

A vision center is a permanent eye care facility in the community which acts as the first point of interface of the population with comprehensive eye care services provided by an exclusive skilled eye care worker.



Proposed eye care service delivery pyramid in India



Characteristics of a Vision Center

- It forms the base of the eye care service delivery pyramid
- It is accessible to a catchment (service) population of 50,000
- With an average village population of 1000, one vision center caters to the needs of 50 villages (range 10-50 depending on size of the village)
- It is networked with a secondary eye care institution (service center) preferably within a distance of 50 kilometers for taking care of referrals
- It is financially sustainable within a span of 2-3 years of establishment
- It is a permanent facility available to the local population round the year
- It is managed by a trained eye care technician
- It is linked to primary eye care workers/ primary health care workers/ developmental NGO workers/ community health volunteers/ anganwadi workers for increasing span of services and yield of clients
- It utilizes community resources through community participation and monitoring or community ownership in some cases

Many hospitals provide mobile eye care services or refraction clinics from secondary level hospitals. These are important for increasing the coverage of primary eye care services including refraction to population in remote areas and underprivileged communities but these are not vision centers as they are not a permanent static facility existing within the community.



6

Functions of a Vision Center

The vision center will be responsible for providing comprehensive eye care services to the 'catchment' population which is about 50,000 population as suggested in the 'eye care pyramid'. This includes identification and treatment/ referral of eye problems, refraction services, increasing awareness of local population on different eye conditions and the means of prevention or early detection, referral follow up, post operative follow up, augment skills of village volunteers and provide school health services.

Ideally, there should be no duplication of vision centers between the Government and Non-Government Organization (NGO) set-ups and every effort should be made to avoid overlap.

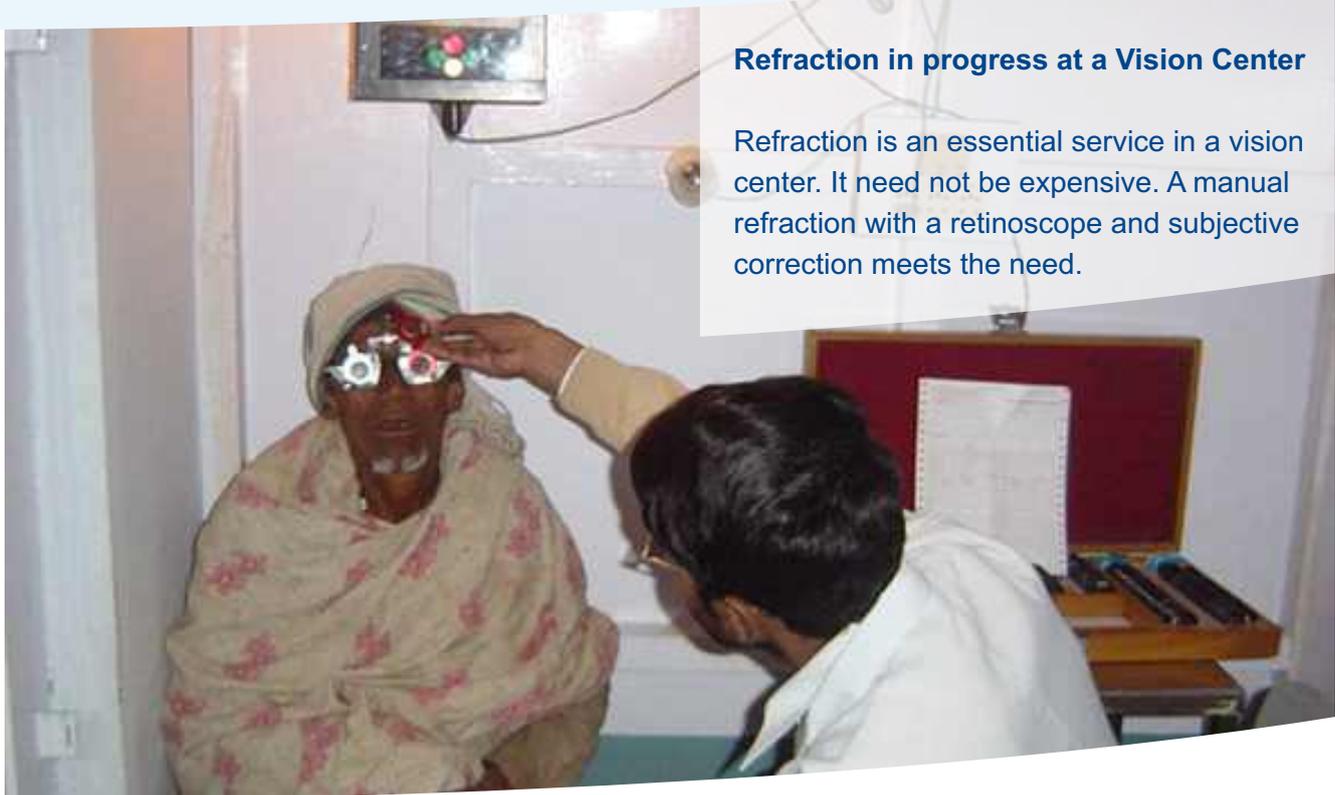
Services provided by Vision Centers

Essential	Desirable
Early detection of eye problems	Treatment of common eye problems
Prepare a register of visually impaired persons	Surveillance of eye diseases by the trained eye health workers
Vision testing and refraction	Surveillance and VC based screening
Dispensing spectacles	Edging and spectacle fitting
Refer individuals needing surgery or specialist attention to the service center (secondary level)	Tele-consultation facility
Referral / post operative follow up	Screening for other specialty
Training of school teachers and preliminary screening by teachers	Develop a follow up system on referrals
School eye screening	Standard training module for teachers to identify extra ocular defects and visual acuity measurement
Support to incurably blind and low vision individuals	Involvement of trained teachers and parents for acceptance and compliance
Training and skill augmentation of other health/ social development functionaries/ volunteers	Follow up; Motivation and counseling; Assist in community based rehabilitation
IEC activities (Health education)	Network with community volunteers/ vision guardians/ anganwadi workers for dispensing ready-made presbyopic spectacles
Networking with community leadership	Initial detection of outbreaks like kerato-conjunctivitis or xerophthalmia during disasters
Networking with ICDS	Rehabilitation of incurably blind
First line management of eye emergencies	

7

Advantages of a Vision Center

- Poverty and absence of an attendant accompanying the needy patients are some of the major barriers for poor uptake of eye care services. It could be addressed by providing the service at convenient times at an accessible location so that people can access without having to lose a day's wage and patients need not be dependant on attendants
- Major eye problems like glaucoma and diabetic retinopathy have to be diagnosed at the earliest stage for better restoration of eye sight. Such kind of eye diseases can be detected and referred at an early stage
- Improves the awareness about eye conditions and their management within the community.
- Increases yield of surgical load at the referral service center
- Provides good quality eye services at an affordable cost to rural and disadvantaged communities.
- Eye health education can scale up the awareness level in rural community
- Efficient management of vision centres can help us to eliminate avoidable blindness and achieve the goal of VISION 2020
- Increases community participation in eye care services



Refraction in progress at a Vision Center

Refraction is an essential service in a vision center. It need not be expensive. A manual refraction with a retinoscope and subjective correction meets the need.

8

Vision Center premises

The vision centre should be established with support from NGOs, government and the local community. The Government of India provides Rs. 50,000/- as approved in 11th five year plan. It is a one-time grant for development of vision centers towards cost of furnishings and equipment.

A vision center can either be a stand-alone exclusive eye care facility or it could be part of a comprehensive health service delivery unit like a primary health center, village dispensaries, community health outpost etc. In either situation, the pre requisites are listed below:

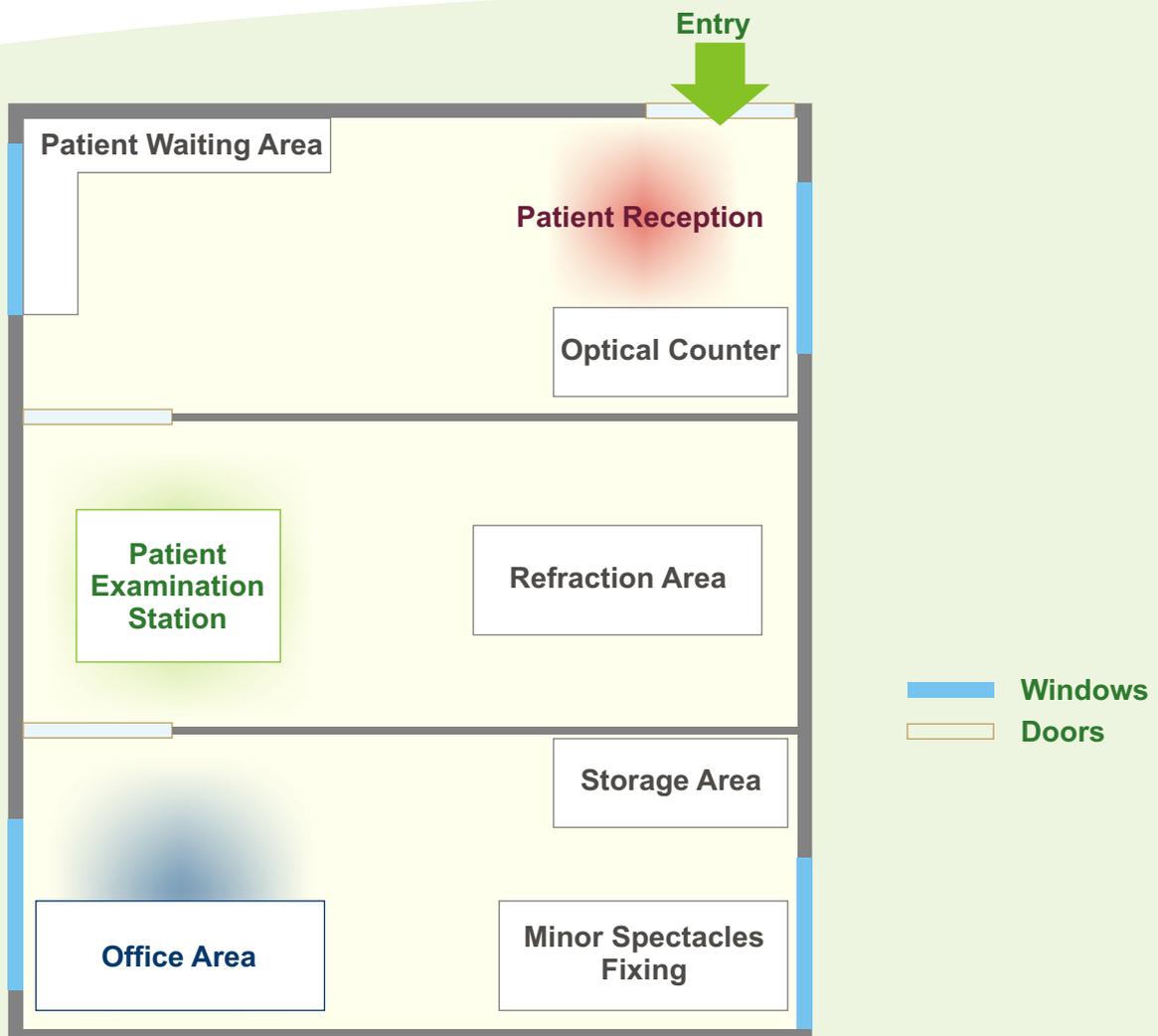
- The vision center can function either from an owned or a rented building
- There should be adequate space for patient consultation, refraction, and dispensing spectacles
- While complete range of spectacles fitting is neither possible nor cost effective, the technician in the vision center should be trained to make minor repairs and adjustments in spectacles
- The first room should provide for the patient reception and waiting area and the spectacle-dispensing unit (preferably 10' x 8')
- A separate area should be available for patient examination and refraction. (preferably 10' x 8')
- A private space should be provided for the office and spectacles workshop (preferably 6'x 6')
- Residential facility provided in the same village will help the technician be more productive



9

Layout of the Vision Center

The vision center should have adequate space for patient reception, optical counter, patient waiting area, client examination station etc. Client comfort should be ensured so that the center is patient friendly and attractive. One such lay out is proposed below.



10

Equipment needs for a Vision Center

Essential

- Flash light
- Distance vision charts
- Near vision charts
- Trial set
- Trial frames
- Pediatric trial frames
- Slit lamp with applanation tonometer
- Streak retinoscope
- Ophthalmoscope direct
- Hand washing solutions
- Generator / Inverter
- Lensometer
- Occluder
- Near vision light
- Big mirror (2'x2')
- Optical rule
- Cross cylinder
- Medicines (see below)
- MRD, documentation & report generation

Desirable

- Schiotz tonometer
- Slit lamp
- Auto refractor
- Colour vision charts
- BP instrument
- Thermometer
- Lister's lamp
- Telephone / Mobile phone
- Computer

'Ideal'

- Lea symbols
- Low vision testing kit
- Glucometer
- Standardised software based medical record system



11

Furniture

Basic furniture required at a vision center

- Chairs / benches for patients
- Optical show case/ rack/ optical display table
- Table and chairs for office work
- Stand/ table for trial set
- Almirahs for storage
- Water jug (20 liters)
- Revolving stools
- Wooden stools
- Book racks
- Storage shelves
- Door mats
- Dustbin
- Display boards
- Tube lights, fans



12

Drugs and consumables at a Vision Center

Essential

Xylocaine 4% eye drops
Vitamin A capsules
Flourescein strips
Cotton and gauze
Eye pads
Plastic eye shield
Savlon solution
Antiseptic hand wash
Normal saline

Desirable

Moisol drops
Blood glucose strips
Urine albumin & sugar strips
Povidone 1% drops

'Ideal'

Room
Room freshener
Mosquito repellent
Diamox 500 mg tablets



13

Stationery at Vision Centers

Essential

OPD cards
OPD register
Blind & visually impaired register
Referral register
Refraction register
Cataract cases register
Optical order register
Medicines stock register
Income register
Cash book
Optical cash register
Optical ledger register
Frames stock register
Advance bill book
Cash bill book
Prescription pads
Spectacle prescription pads
Envelopes
Carbon paper
Paper reams
Stapler and pins
Gum, glue stick etc.
School health register
School Vision Testing Cards
School Health Referral Slips
Vision centre manual
Refraction checklist
Health education material
Pens, pencils etc.

Desirable

Complicated cases log book
Visitor's register
Computer with printer
Specialist clinic register
Daily activity record

EMR and electronic data capturing will help improve efficiency and reduce paper work.

14

Personnel at a Vision Center

Requisite skills and qualifications

The vision center personnel should preferably be from the same community to retain staff and ensure dedication in the work.

- Essential** : Mid level ophthalmic person (Ophthalmic Assistant / Optometrist/ Refractionist / Vision technician etc.)
- Ideal** : Vision technician with one year training and 6-12 months internship will be ideal and adequate.

The vision technician must be trained for a comprehensive eye examination, Schiotz and applanation tonometry, refraction and good knowledge of common eye diseases.

It is also important to remember that a person at a vision center is an independent functionary and will need patience and tact to handle communities with diverse characteristics. Such people should therefore be more experienced compared to those in a hospital set up where the senior doctors and administrators can help out in a problem situation.

The success of the vision centre will be directly proportional to the skill of the vision center staff and their attitude and behavior with patients. Therefore an induction course should be organized for all new personnel before joining the vision center.

Two important elements are keys to long term success of the vision center and the personnel in the Vision Center:

- i. Periodic visit of the ophthalmologist from the affiliated secondary center.
- ii. Build periodic skill enhancement training and a long-term career advancement of the technician.

These are elaborated further below.

A locally hired person can take care of daily cleaning and housekeeping work.

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Support from a Secondary Center (Service Center) for a Vision Center

Service center will be linked to a number of vision centers in a region. Hence the service center must be equipped to receive all the referred cases from the vision center. The service center will act as the mentor of all vision technicians. In order to maintain a standard in quality of service and management of activities, a leadership team can be assigned at the service center levels. The team should consist of an ophthalmologist, optometrist and a coordinator. The leadership team can take care of upgradation, training, coordination, optimum utilization of available resources across the centers linked with each service center.

Telephonic (or mobile phone) connectivity between the Vision Centre and the service center should be ensured for troubleshooting.

It is only necessary that the vision technician returns to the secondary center for one month every year for refresher courses and skill enhancements.

- An ophthalmologist from the service center (secondary level) should hold a 'specialist eye clinic' at the vision center. It is essential that this clinic be scheduled once a week
- The 'specialist eye clinic' should be organized at the same time and same day of the week every time
- The specialist clinic should target problem cases, postoperative cases and complicated refractions.
- A vision center coordinator should be located at the service center and should visit each vision center every fortnight (preferably every week)
- The coordinator should help in augmenting managerial and clinical skills of vision center staff and in training other categories of health personnel

The service center can be linked with district head quarters service providers for better communication and updating activities and performance.

Spectacles need in a population of 50,000

Age	%	No.	% Ref err	Current coverage	No. in need of spectacles	Freq of change of glasses	No. of glasses required/ yr
10-14 yrs	12 %	6,050	5%	10%	275	Every year	275
15-45 yrs	46 %	23,050	8%	10%	1650	Every 2 yrs	825
45+	18 %	9,150	50%	10%	4100	Every 3 yrs	1350

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Expected workload at a Vision Centre

Parameter	Coverage/ Output	Remarks
Population covered	50,000	CHC/ Cottage hospitals cover 100,000 population while PHC cover 30,000 population
No. of days vision centre functions/ year	280 (Minimum)	
No. of hours vision centre functions	4 hours per day for clinical work	Morning session will be spent on outreach services including school screening
Expected number of patients per day	15-20	All problems including refractive errors
Expected number of refractions/ day	3-4	20% of OP clients
Out patient load / year	5,000	4200 – 5,600 per year
Refraction load/year	1,000	20% of OP clients
No. of spectacles sold/year	500	50% of refractions
Referrals/year	500 to 1,000	10% to 20% of OP clients
No. of schools screened/ yr	20	Schools with 500 students in 50,000 population (50% of schools covered in a year)
Training school teachers/ volunteers/ year	30	Includes Anganwadi workers; School teachers; Health workers; CHV; PEC workers etc.

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Scheduling of activities at a Vision Center

The vision center will function six days a week and the vision center personnel should be available for providing first line care for an eye emergency even after normal working hours.

The work at a vision center can be scheduled such that people can consult without having to take a day off from their jobs. Therefore late afternoons would be the most appropriate time for patient contact at the vision center while the morning hours can be used for out reach services including school eye services.

Morning Hours

- Training of school teachers
- Training of volunteers
- School eye screening
- Health talks
- Advocacy with village elders
- Other villages visit under jurisdiction
- Liaison with self help groups
- Spectacles distribution in other villages under jurisdiction

Afternoon/evening hours

- Patient consultation/ examination
- Refraction
- Specialist clinic
- Dispensing spectacles
- Fitting spectacles; edging
- Counseling
- Record keeping
- Correspondence
- Analysis of data

(The above said activities can be interchanged as we serve many patients, visit hospitals, clinics, PHCs in the morning. In general, the rural community is engaged in agriculture work or industrial work in the morning hours and it would be difficult to conduct training, health awareness campaign, liaison activities etc.)

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Financial sustainability

A vision center in the NGO sector should attain financial sustainability within 2-3 years of inception. Since most of the government facilities like PHC/CHC would not have optical units and do not usually charge user-fee, financial sustainability would not be too difficult.

A nominal fee for all patient registrations is recommended, but left to the discretion of the service providers.

Prescription and sale of spectacles may be considered as a major source of revenue for financial sustainability. If we consider half of the annual demand of spectacles, the revenue generated from about 1,200 spectacles may support a major portion of operational cost.

The initial cost of setting up a vision center would be between Rs. 500,000 – Rs. 700,000 depending upon the proposed equipment and facilities to be provided at the vision center. This does not include the capital investment on the building and the rentals.

- Charge a nominal user fee
- Sale of spectacles at vision center should consider the market value of spectacles (vision center should charge less than the market value to attract clients)
- Staff with adequate skills to manage patients and for refraction
- Ensuring a high quality of service and client-interaction
- Delivery time of spectacles should be minimized
- Good quality of spectacles
- Vision center staff should be available in the village for any emergency
- Tailoring vision center timings to suit the population needs

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DO's and DON'Ts for medicines

- Keep medicines in a cool, dry place
- Check for the expiry date of the medicines and do not use after expiry date
- The cap of the vials should be covered
- Do not touch the tip of the vial when instilling medicines in the eye
- Do not use opened vials after one week even if medicine is wasted
- Medicines nearing expiry date should be used first
- Update the medicine stock regularly (twice a month)
- Ask the patient to look up when instilling medicines

Issues related to refraction

- Keep a variety of frames for clients to select from
- Keep the optic centers opposite to the pupil centers
- Measure Inter Pupillary Distance (IPD)
- Ensure correct centering to avoid prism effect and patient discomfort
- Always get the client to wear the spectacles and make adjustments if necessary
- Counsel patients about headaches and blurring of vision when they use spectacles for the first time
- Always do cycloplegic refraction for children especially when prescribing for the first time
- Do a Post Mydriatic Test (PMT) after cycloplegic refraction
- As a rule, undercorrect rather than overcorrect
- 50% of prescriptions can be dispensed from a range of ready made spectacles

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Quality assurance at a Vision Center

The leadership team based at the secondary center has to ensure the maintenance of quality as per the standards. Quality assurance should be given maximal importance if vision centers are to succeed. In the initial stages, 'hand-holding' should be done at very frequent intervals.

Some of the quality assurance protocols to be adopted include:

- Availability of a refraction manual
- Availability of checklist of refraction
- Availability of diagnostic algorithm
- Checking of the process of refraction, in a sample of clients, by the visiting ophthalmologist
- Verification of diagnostic skills by visiting ophthalmologist
- Cross checking of a 10% sample of spectacles by coordinator and visiting ophthalmologist
- Standard follow up process on referred cases
- Client satisfaction surveys
- Spectacle utilization rates among school children
- Regular feedback on performance and financial monitoring indicators from service center
- Supportive supervision
- Monitoring and evaluation of the proposed activities
- Annual CME program for vision center personnel

One of the best ways to ensure quality is by adopting a uniform training curriculum and a standard duration of training for staff to be posted at vision centers. At present there is too much diversity in both the curricula and the duration of training. This impacts the skills of the personnel responsible for managing the vision centers.

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MIS at a Vision Center

- The vision center staff will need to spend 1-2 hours every day to update all the records
- On the last day of the month, the monthly report should be compiled
- The monthly report should be communicated to the service center by the 5th of the subsequent month
- Feedback from the service center should be provided to the vision center by the 15th of the subsequent month based on the periodical visits made by ophthalmologist to upgrade the quality
- If computer facilities are available, all records can be maintained in a dedicated data base and data transmitted online to the service center
- Formats should be designed for data management at all vision centers

Formats to be used at Vision Centers

Performance related formats

- Out patient consultation record
- Refraction record
- Spectacle prescription record
- Spectacles order record
- Drug dispensing record
- Stock and inventory register
- Referral record
- Blind and visually impaired persons record
- Emergencies attended record
- School screening record
- Trainees record

Financial formats

- Money collection from patient registration record
- Money collected from spectacle sale record
- Income from other sources record
- Expense statements detailing salary, drug/ frames purchase other consumable purchase, rentals, electricity, diesel, kerosene etc.

Prototypes of common formats

Out Patient Consultation Format

Serial No.	Date	OP registration No.	Name and Address	Age	Gender	Probable Diagnosis	Action taken / Remarks

Refraction Format

Serial No.	Date	OP registration No.	Name	Age	Gender	Type of RE	Distance Correction						Near
							Right Eye			Left Eye			
							Sph	Cyl	Axis	Sph	Cyl	Axis	

Blind / Visually Impaired Persons Register

Serial No.	Date	Father/ Husband's name	Address	Village	Age	Gender	Vision RE	Vision LE	Probable cause	Action taken/ Remarks

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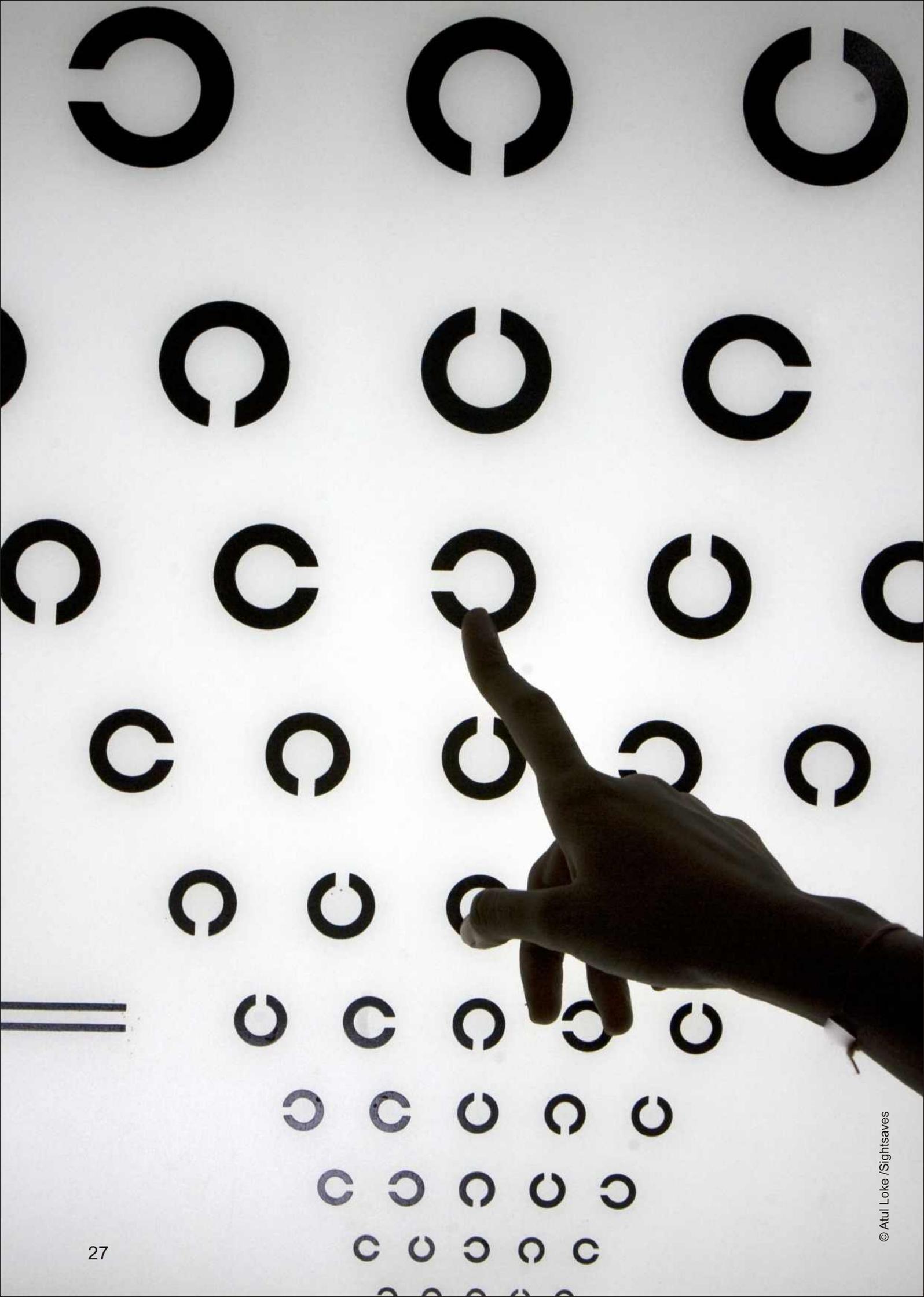
Monitoring of Vision Center activities

Regular monitoring of vision center activities should be ensured from the service center. The Vision Center Coordinator (VCC) should be responsible for data maintenance and submission of periodical reports. The VCC has to help the leadership team in the service center in monitoring performance and evaluation.

A number of monitoring indicators can be used for this purpose.

Monitoring Indicators

- No. of outpatient consultations (weekly/ monthly) – Age/ Gender/ Village
- No. of refractions (weekly/ monthly) – Age/ Gender/ Village
- No. Of spectacles prescribed (weekly/ monthly) – Age/ Gender/ Village
- No. of spectacles dispensed (weekly/ monthly) – Age/ Gender/ Village
- No. of patients referred with remarks by ophthalmic assistant (weekly/ monthly) – Age/ Gender/ Village
- No. of patients attended service center (monthly)
- No. of school children screened (monthly) – Age/ Gender/ Village
- No. of school children advised and received spectacles (monthly – school wise reports)
- No. of teachers/ health workers/volunteers trained – Village
- No. of awareness campaign conducted with details
- Cost Recovery ratio (Income/Expenditure)
- Quality assurance mechanisms adopted
- Client satisfaction surveys



Disclaimer: This document contains a set of broad guidelines for establishment and management of Vision Centres in India. Vision 2020: the Right to Sight - India does not in any way claim that this is the only way to establish and manage a Vision Centre, there will be newer ways that will develop with time. The contents of this document should not be quoted as authority in any court of law or dispute. VISION 2020: The Right to Sight - INDIA will not be involved, either directly or indirectly, in any way for any damages to any persons / group of persons in the event of carrying out any of the activities mentioned in this document

A VISION 2020: The Right to Sight INDIA Publication

VISION 2020: The Right to Sight is the global initiative for the elimination of avoidable blindness, a joint programme of the World Health Organization and the International Agency for the Prevention of Blindness with an international membership of NGOs, professional associations, eye care institutions and corporations. VISION 2020: The Right to Sight INDIA is a key driver of this initiative in India.

Vision

An India free of avoidable blindness, where every citizen enjoys the gift of sight and the visually challenged have enhanced quality of life as a right.

Mission

To work with eye care organizations in India for the elimination of avoidable blindness by provision of equitable and affordable services as well as rehabilitation of visually challenged persons through development of appropriate policies, quality standards, advocacy, training, and promotion of best practices with a special emphasis on the poor and marginalized sections of society and underserved areas.



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With support from



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