

NATIONAL PROGRAMME FOR CONTROL OF BLINDNESS(NPCB)



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1ST YEAR PG

DEPT. OF COMMUNITY MEDICINE

OUTLINE

- DEFINITIONS
- BURDEN
- GOALS & OBJECTIVES
- STRATEGIES
- ORGANIZATIONAL STRUCTURE
- DISTRICT BLINDNESS CONTROL SOCIETY (DBCS)
- ACTIVITIES OF NPCB
- NEW INITIATIVES UNDER THE PROGRAM
- EXTERNALLY AIDED PROJECTS
- VISION 2020

DEFINITION OF BLINDNESS

- WHO Definition:- Visual Acuity **less than 3/60** (Snellens) or its equivalent.
- NPCB Definition:-
 - **Inability** of a person to **count fingers** from a distance of **6 meters** or **20 feet**.
 - **Vision 6/60 or less** with the best possible spectacle correction
 - Diminution of **field vision to 20 degrees or less** in better eye

TYPES OF BLINDNESS

1. Economic Blindness
2. Social Blindness
3. Manifest Blindness
4. Absolute Blindness
5. Curable Blindness
6. Preventable Blindness
7. Avoidable Blindness



- **Visual Acuity:-**

- Sharpness of vision, measured as maximum distance a person can see a certain object, divided by the maximum distance at which a person with normal sight can see the same object

- **Economic blindness:-**

- Inability of a person to count fingers from a distance of 6 meters or 20 feet.

- **Social blindness:-**

- Vision 3/60 or diminution of field of vision to 10 degrees

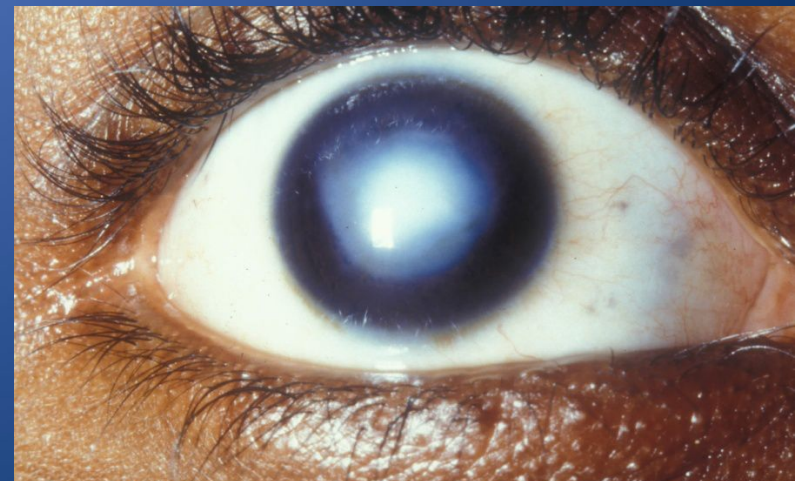


- **Manifest blindness:-**

- Vision 1/60 to just perception of light

- **Absolute blindness:-**

- No perception of light



- **Curable blindness:-**



- That stage of blindness where the damage is reversible by prompt management e.g. cataract

- **Preventable blindness:-**

- The loss of vision that could have been completely prevented by institution of effective preventive or prophylactic measures.eg:- xerophthalmia,Trachoma



- **Avoidable blindness: -**

- The sum total of preventable or curable blindness is often referred to as avoidable blindness.

Comparison of WHO and NPCB definitions

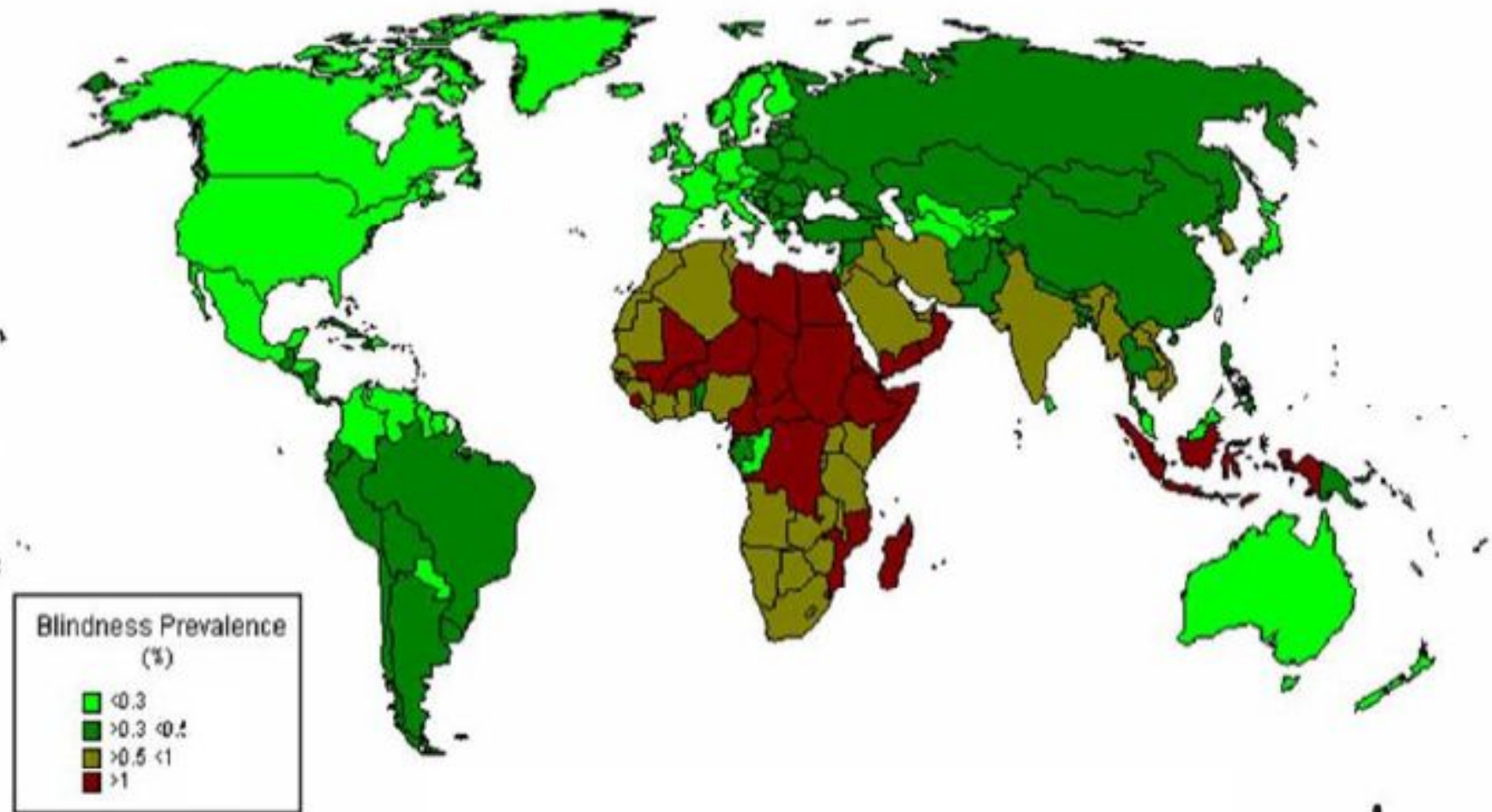
WHO-ICD	VISUAL ACUITY	NPCB
LOW VISION		
Category (1)	<6/18 - 6/60	Low vision
Category (2)	<6/60 - 3/60	Economic blindness
BLINDNESS		
Category (3)	<3/60 – 1/60	Social blindness
Category (4)	<1/60-perception of light	Manifest blindness
Category (5)	No perception of light	Absolute blindness

BURDEN

- GLOBAL BURDEN:- as per WHO statistics 2010
- 285 million people are estimated to be visually impaired worldwide.
- 39 million are blind and 246 million have low vision.
- About 90% of the world's visually impaired live in low income settings.
- 82% of people living with blindness are aged 50 and above.

- Globally, uncorrected refractive errors are the main cause of moderate and severe visual impairment.
- Cataracts remain the leading cause of blindness in middle and low income countries.
- 80% of all visual impairment can be prevented or cured.
- Prevalence is highest in African continent (avg. of 1.2%) followed by Asia (0.75%) and Latin America (0.5%) .

Prevalence of Blindness



**World Health
Organization**

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

- National Burden:-

- Out of 37 million people across Globe who are blind , India has 12 million blind persons

NHS (ICMR-1974) - 1.38%

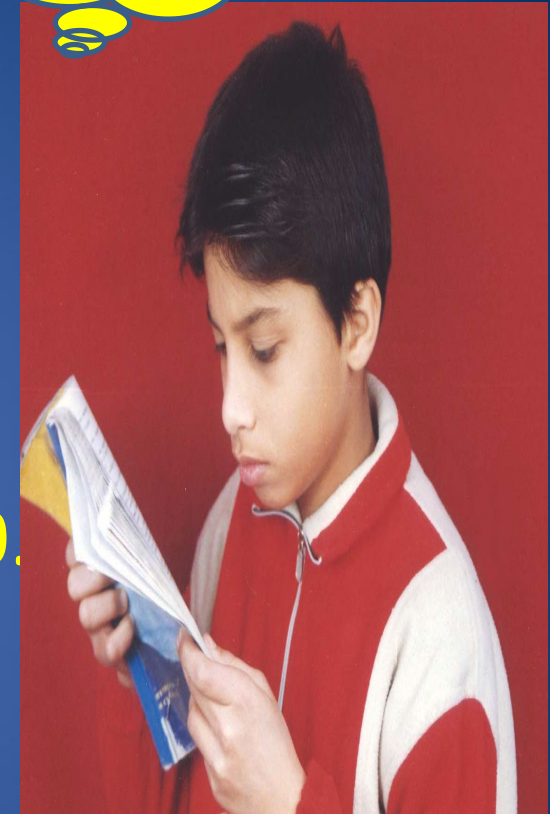
NPCB/ WHO(1986-89) - 1.49%

NPCB(2001-2002) - 1.1%

NPCB (2006-07) - 1%

I am not able
to read
properly

- Prevalence of blindness
 - i. > 50 years was 8.5%.
 - ii. childhood blindness is 0.8/1000.
- In children 5 to 15 years of age
the Visual Impairment is 6.4%



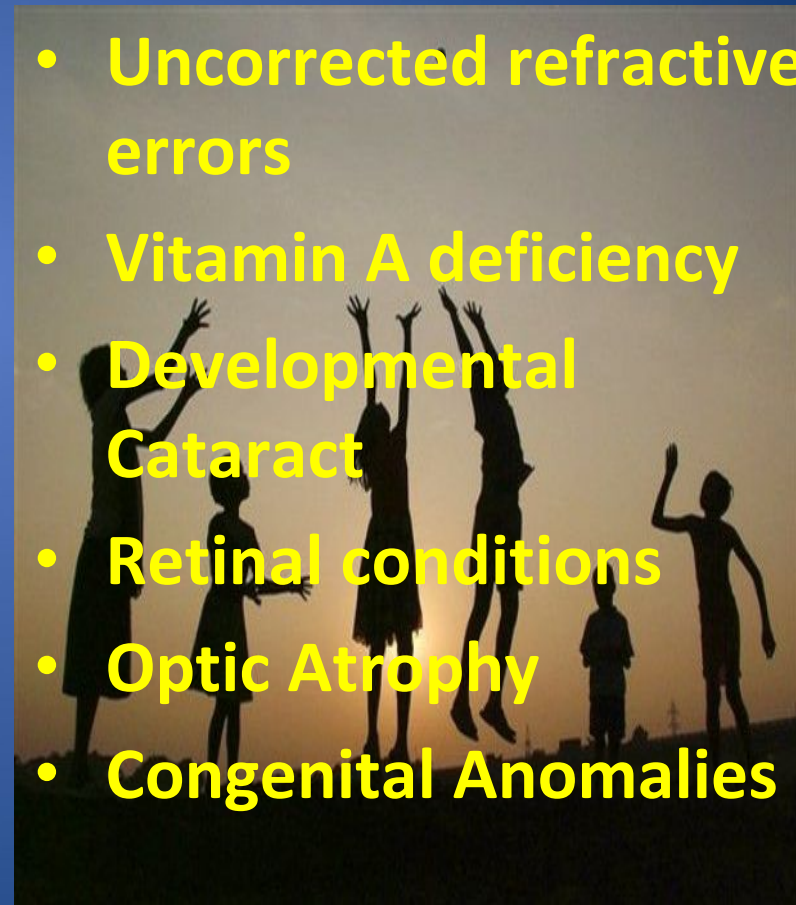
Causes of Blindness in India

Major causes of Blindness



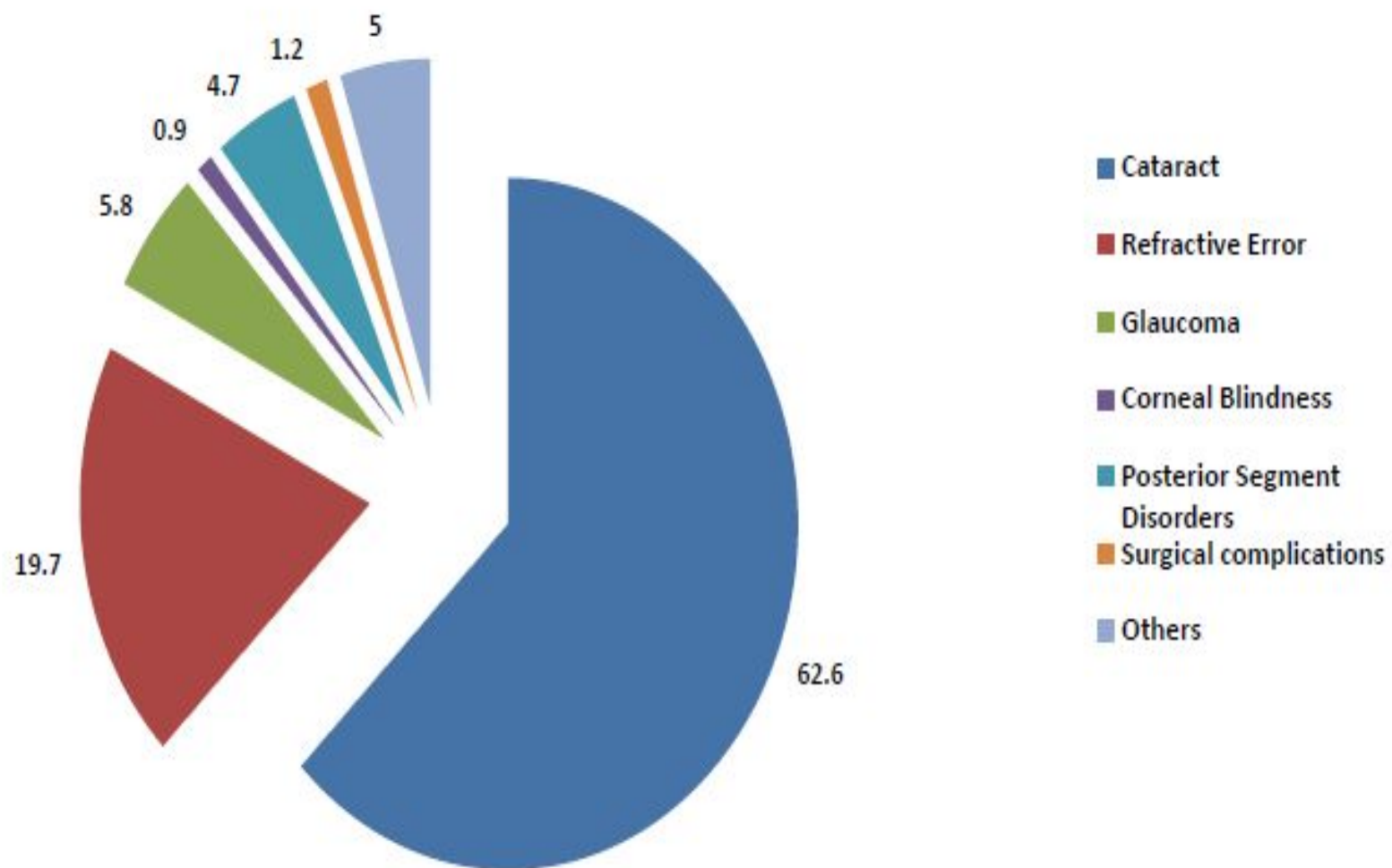
- Cataract
- Uncorrected refractive errors
- Glaucoma
- Corneal opacity

Causes of Childhood Blindness



- Uncorrected refractive errors
- Vitamin A deficiency
- Developmental Cataract
- Retinal conditions
- Optic Atrophy
- Congenital Anomalies

NPCB PILOT SURVEY 2001-2002



PROGRAMME



INDIA was the first country in the world to launch National level Blindness control program.

- **1976** : NPCB launched as 100% centrally sponsored programme.
- **1994-95**: Programme decentralized with formation of District blindness control society(DBCS) in each district.

GOALS

- To reduce the prevalence of blindness from 1.49%(1986-89) to <0.3% by 2020.
- To establish an infrastructure efficiency to cater new cases of blindness each year to prevent future backlog.

OBJECTIVES – 12th FYP

- To reduce the backlog of **Avoidable blindness** through identification and treatment.
- **“Eye Health for All”** through provision of eye care services.
- Strengthening and up gradation of **Regional Institutes of Ophthalmology (RIOs)** and **additional Human Resources and infrastructure facilities.**

- To enhance **Community Awareness** on eye care and lay stress on preventive measures.
- Increase and expand **Research** for prevention of blindness and visual impairment.
- To secure participation of **Voluntary Organizations/Private Practitioners** in eye Care.



STRATEGIES

♥ Take the
#eye
pledge
Get your eyes
tested.

- Continued emphasis on free Cataract Surgeries.
- Emphasis on **Diabetic Retinopathy, Glaucoma, Corneal transplantation, Vitreo retinal surgeries, Childhood Blindness.**
- Active **screening** of population **above 50 years of age.**
- Screening of **school children** for identification and treatment of Refractory errors



- Coverage of underserved areas for Eye care through Public-Private Partnership
- Capacity Building of Health personnel
- IEC activities for Community
- Strengthening of Regional Institute of Ophthalmology (RIOs) and Medical Colleges of States and District Hospitals.



- Continuing emphasis on Primary Eye care.
- Multipurpose District Mobile Ophthalmic Units for better coverage
- Participation of community and Panchayathraj Institutions in organizing services in rural areas
- Involvement of Public-Private Partnership



Organizational structure

Administration :-

Central ----- Oph.section, DGHS, MOHFW.



State ----- State ophthalmic cell,
Directorate of health services,
State health societies



District ----- District blindness control societies

Service delivery & Referral system :

Tertiary level-----Apex, Regional institutes,
Medical Colleges



Secondary level----- District hospital & NGO Eye
hospital



Primary level----- Sub-district level hospitals/CHC
Mobile ophthalmic units
Upgraded PHCs
Link workers/Panchayats

District Blindness Control Society

Goal:- “To achieve maximum reduction in avoidable blindness through optimal utilization of available resources”.

The Programme includes:

- Comprehensive Eye Care
- School Eye Screening
- Community based Rehabilitation

ACTIVITIES of NPCB

- Cataract operations
- Involvement of NGOs
- Civil works
- Commodity Assistant
- IEC activities
- Management Information System
- Monitoring and Evaluation
- School Eye Screening Programme
- Collection and utilization of donated Eyes
- Control of Vitamin A deficiency



CATARACT OPERATIONS

- IOL implantation by government, private and NGO organizations
- **2014- july2015 NPCB statistics**
 - India - 63,31,982
 - Telangana - 2,23,721



IEC activities

- Telecast / Broadcast
- Print materials
- Postal and Railways
- Display messages/ Panels
- Video Messages
- Through NGOs and Stake Holders
- Schools
- Influential people
- SMS(new)



School Eye Screening Programme

- Children aged 10-14 years having vision problem : 6-7 %.
- First screened by trained teachers (1 for 150 students)



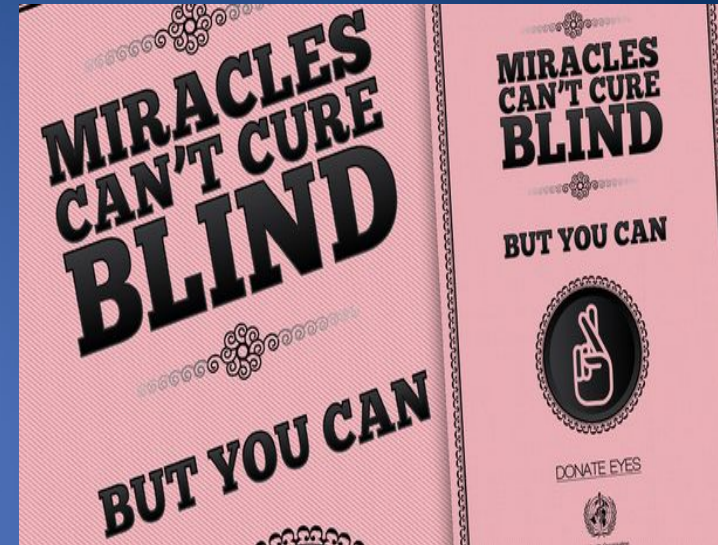
Ophthalmic assistants

- Corrective spectacles are prescribed or given free for BPL.
- 2014- July 2015 NPCB statistics
 - India - 732120
 - Telangana - 14575



Collection and utilization of donated Eyes

- 2014-july 2015
NPCB Statistics
- India - 57250
- Telangana - 4466



NEW INITIATIVES OF THE PROGRAM

1. Provision of **free glasses** in **Presbyopia patients** .
2. Provision of spectacles for school children by conducting **Eye Testing Fortnight** every year in the **month of June**
3. Provision of Multipurpose District Mobile Ophthalmic units(MDMOUs) in all districts all over the country.





4. To promote Eye donation and to urge the Eye banks to perform better in the forthcoming years.

5. Hospital Cornea Retrieval Programme – inclusion of mandatory required request for Eye donation from those who are deceased in the cause of death certificates issued by Hospitals need to be firmly put into practice (NPCB quarterly news letter july-sept. 2012)

Externally Aided Projects

- WHO
- DANIDA
- World Bank



VISION 2020: THE RIGHT TO SIGHT

- Global initiative **to reduce avoidable (preventable and curable) blindness** by the year 2020.

- Target Diseases:-

1. Cataract
2. Refractive errors
3. Childhood blindness
4. Corneal blindness (trachoma, onchocerciasis)
5. Glaucoma
6. Diabetic retinopathy.



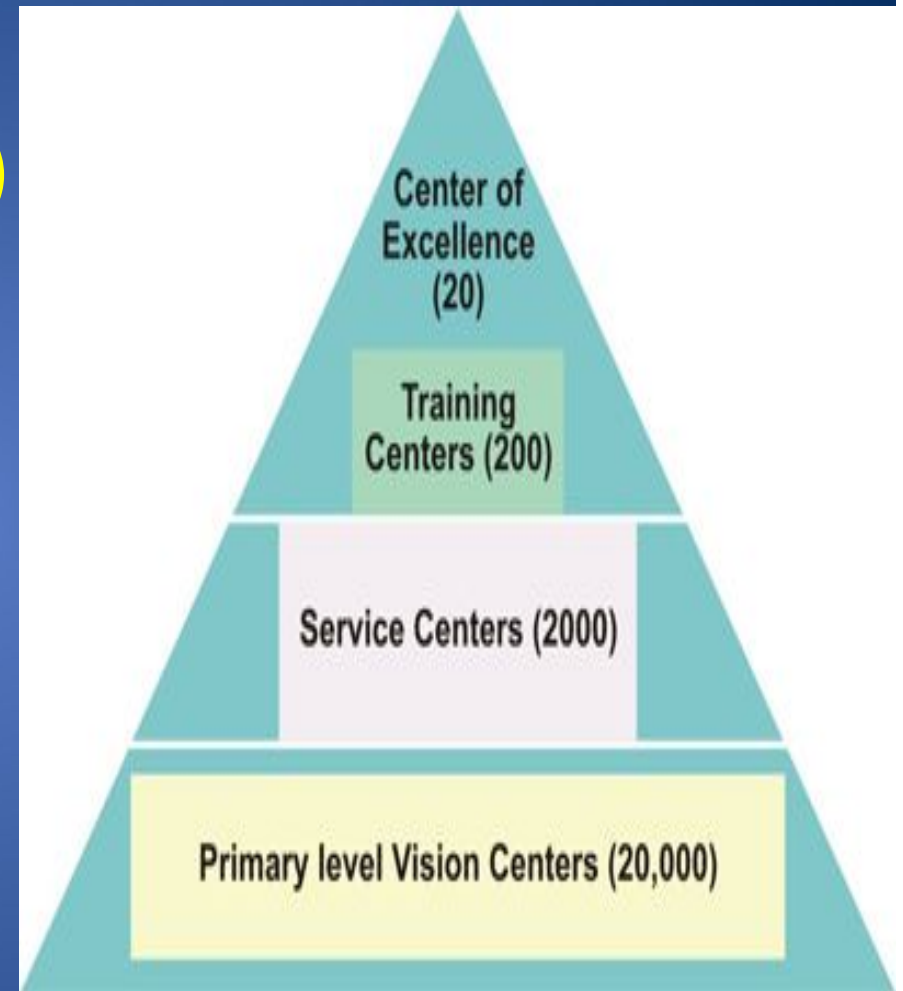
Plan of action for India : Proposed structure

Centers of Excellence (20)

Training Centers (200)

Service Centers (2000)

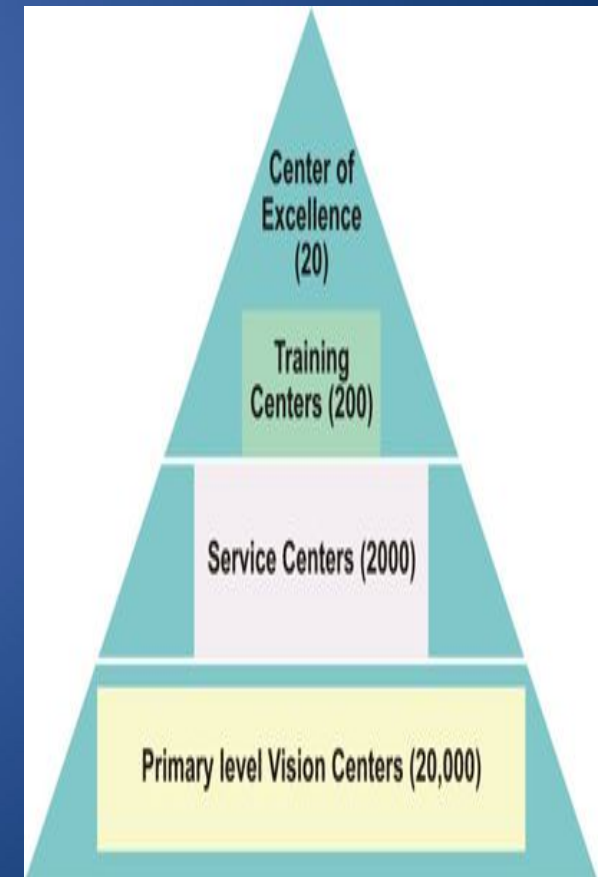
Vision Centers (20,000)



Services at each centre

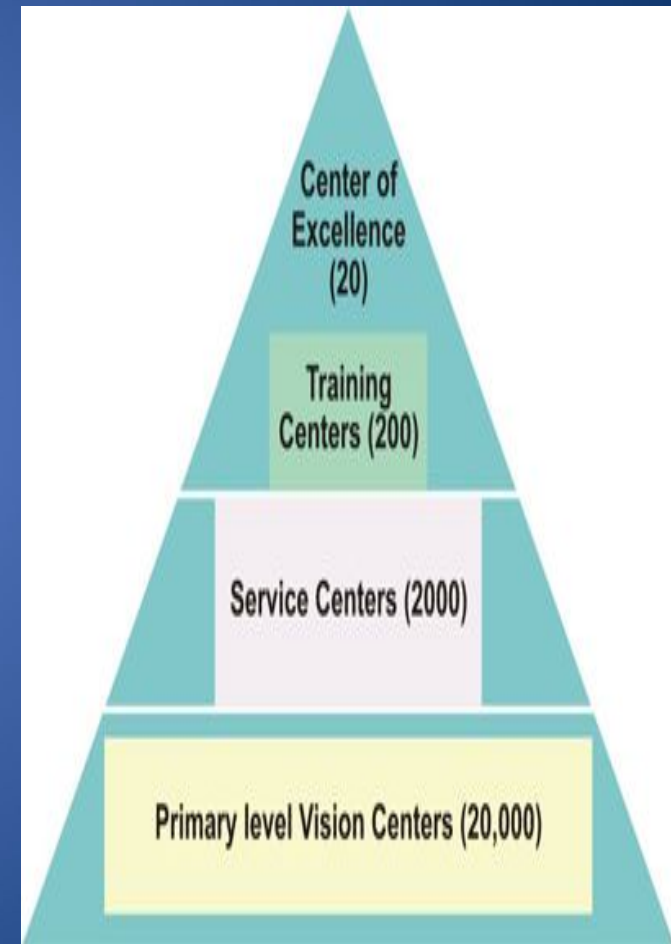
Primary level : Vision centers 20,000

- Screening & referral services
- School eye screening programme
- Primary eye care
- Refraction & prescription of glasses



Secondary level : Service centre 2000

- Cataract surgery.
- Other common eye surgeries.
- Facilities for refraction.
- Referral services.



Tertiary level :

a) Training centers 200

- Tertiary eye care : Retinal surgery
Corneal transplantation
Glaucoma surgery
- Training & CME

b) Centre of excellence 20

- Professional leadership
- Strategy development
- CME
- Laying of standards & quality assurance
- Research



Summary

- Blindness is a great public health problem
- NPCB started in 1976 mainly to achieve goal reduction in prevalence of blindness from **1.4 % to <0.3% by 2020**
- Activities carried out to achieve goals through cataract surgeries, NGOs, screening of school children, eye camps, IEC for eye donation, MDMOUs etc.
- In preventing Preventable Blindness, and treating Curable Blindness.
- Vision 2020 the Right to Sight will be achieved by the help of 3 levels of eye care.

References

- K.Park text book of Preventive and Social Medicine, M/s Bhanot Publishers 23rd Edition 2015
- Jugal Kishore, text book for National health programmes, 9th edition 2011
- www.who.int/mediacentre/factsheets/fs282/en/
- Govt.of India,National Programme for Control of Blindness in India, Ministry of Health and Family Welfare, New Delhi

Thank You



Donate your EYES

to help someone see

National Eye Donation Fortnight

Aug 25- Sept 8

india.gov.in

2nd THURSDAY OF
OCTOBER MONTH

