

# **NATIONAL PROGRAMME FOR CONTROL OF BLINDNESS**

**Taking NPCB ahead in quality**

**World Sight Day celebrations  
on 13<sup>th</sup> October, 2011 at Udaipur**

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# Aims & Objectives

- Aim is to reach every nook and corner of each district including remote areas to provide treatment for all types of eye ailments.
- Objective is to maintain high quality in cataract surgery and other eye care services.

# Role of NPCB

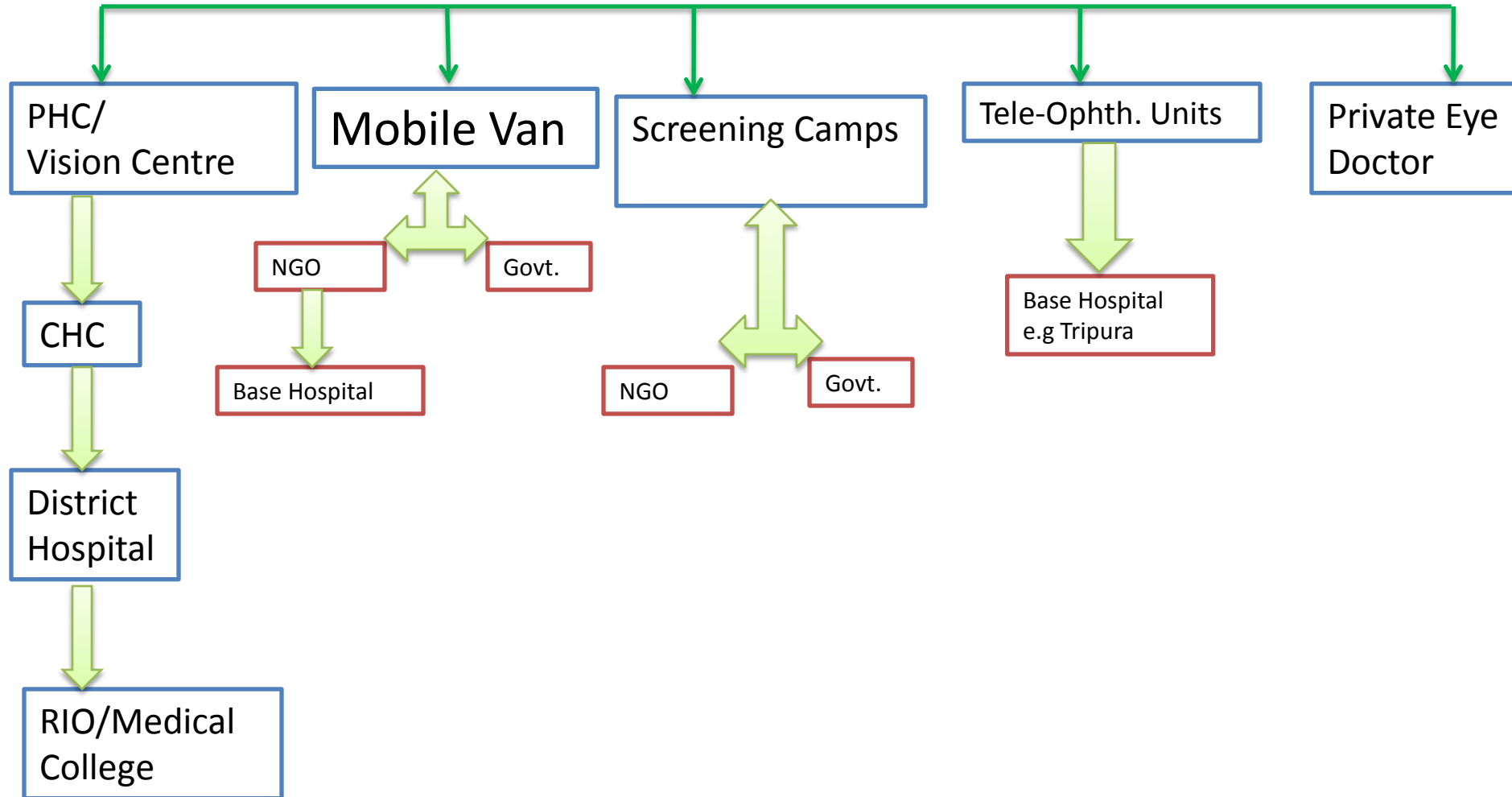
- Collection of ocular morbidity data i.e. identification of all major causes of blindness.
- Policy Maker
- Budget Provider
- Infrastructure developer
- Guide and Supporter of Stake holders (NGOs) including Vision 2020 INDIA
- Identification of modern technology for quality output.
- Logistics
- Nationwide surveys to find out prevalence of blindness and its various components.
- Training of young Ophthalmologists
- Monitor & Evaluator
- To carry out IEC activities and spread message on Eye Care
- To celebrate all major eye care & vision related events like Eye Donation Fortnight, World Sight Day, Glaucoma day etc on a mega level.

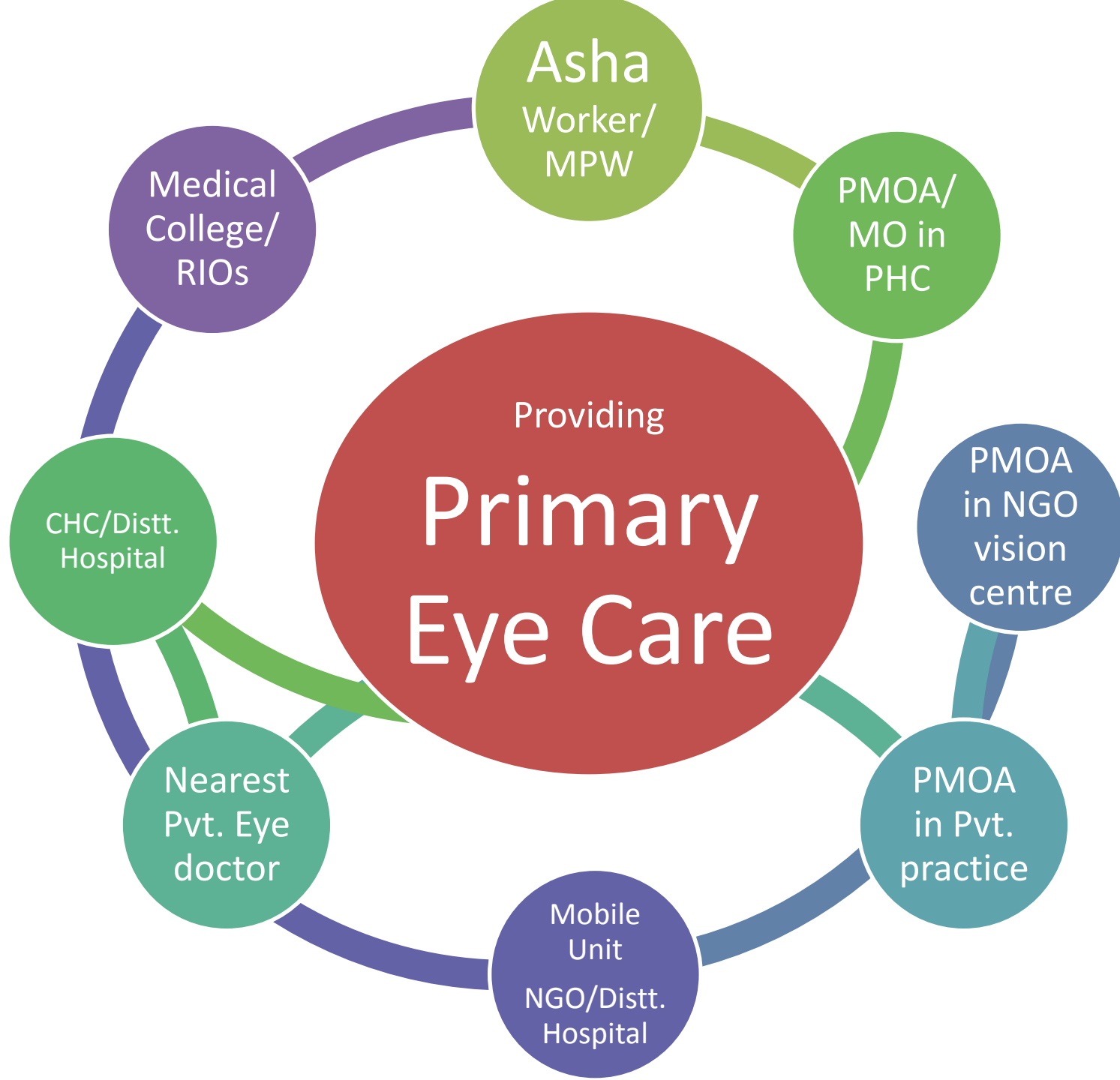
# Pre-requisites of a surgery based programme (NPCB)

- Good screening and diagnosis
- Dedicated OPD, Eye Ward and Eye OT Units
- Fully trained surgical team
- Modern surgical tools and intra-operative patient care apparatus
- Full asepsis at all levels to prevent post operative infection
- High quality pre-sterilized drugs and surgical consumables
- High quality post operative Eye & General care

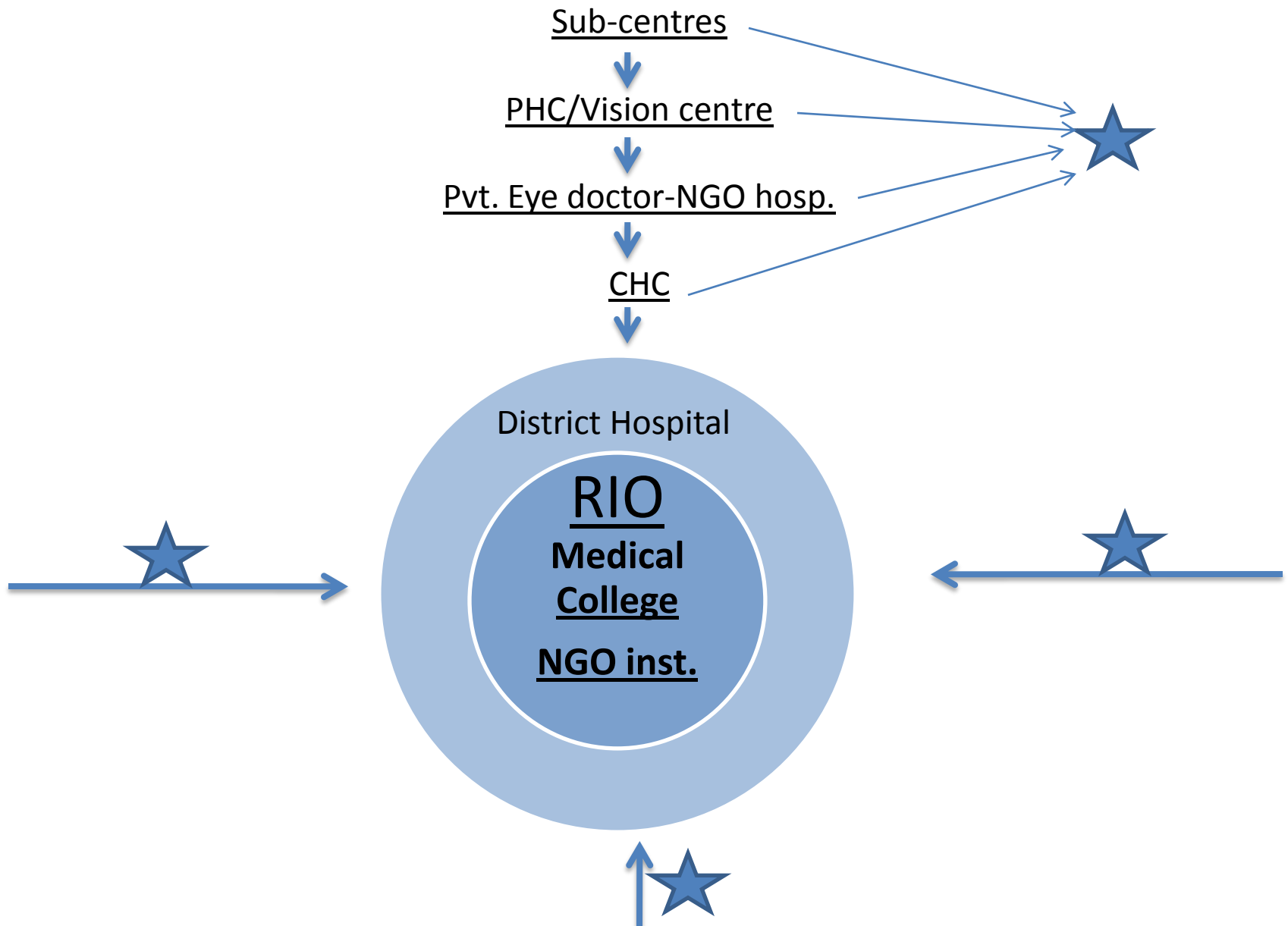
# Delivery of Eye Care Services

Patients screening, Diagnosis and Surgery

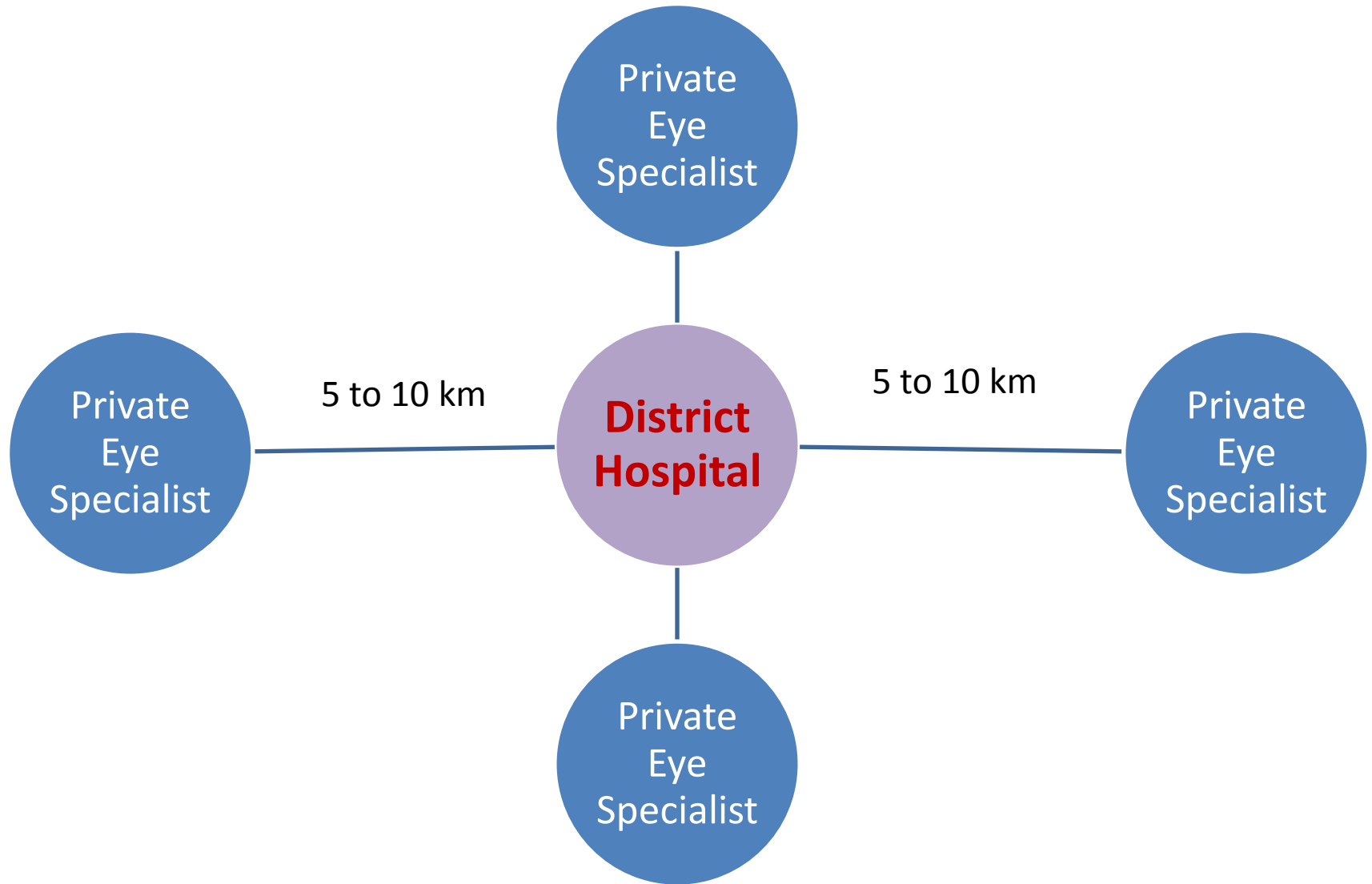




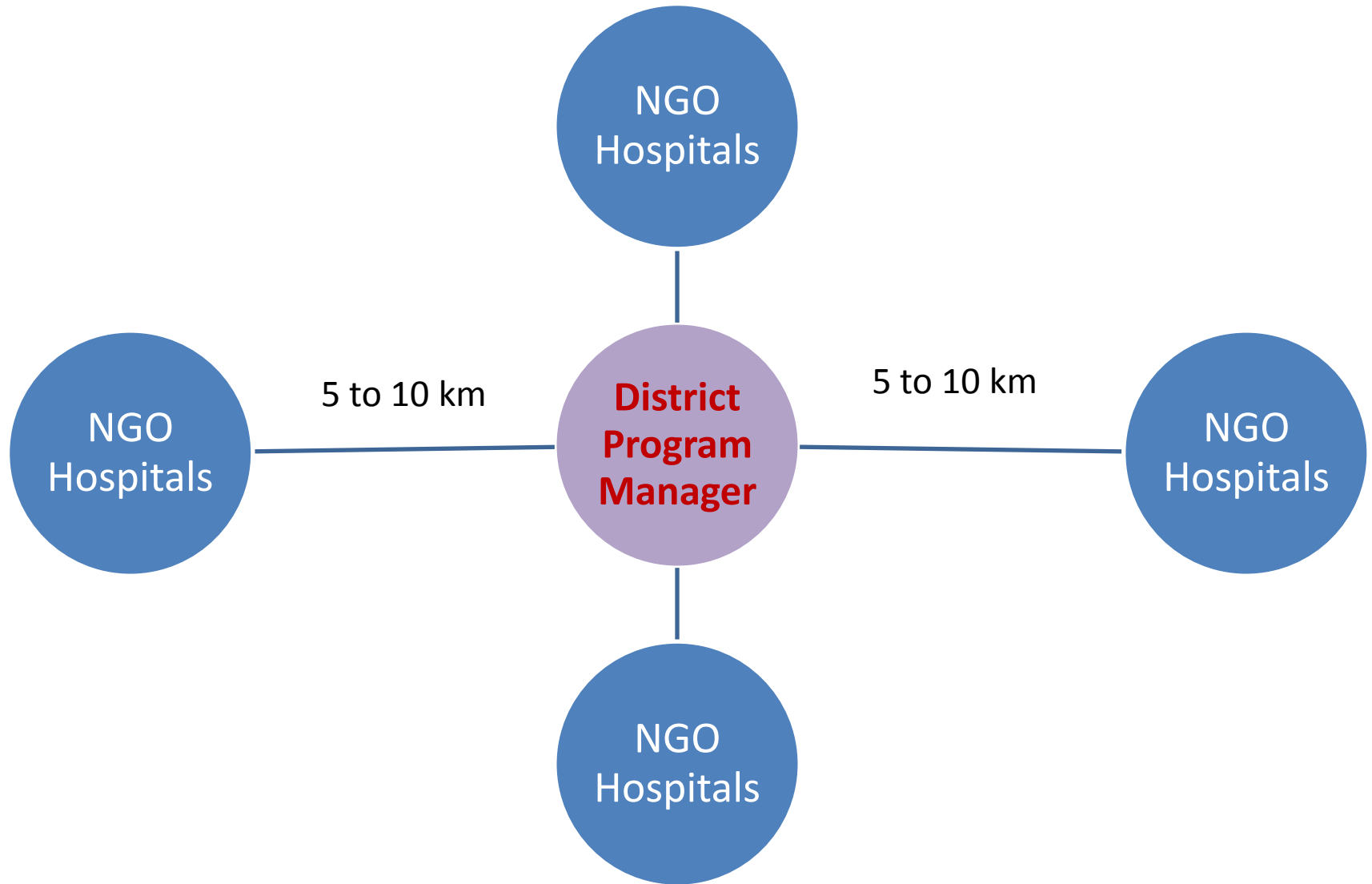
# Eye Care Delivery in each district



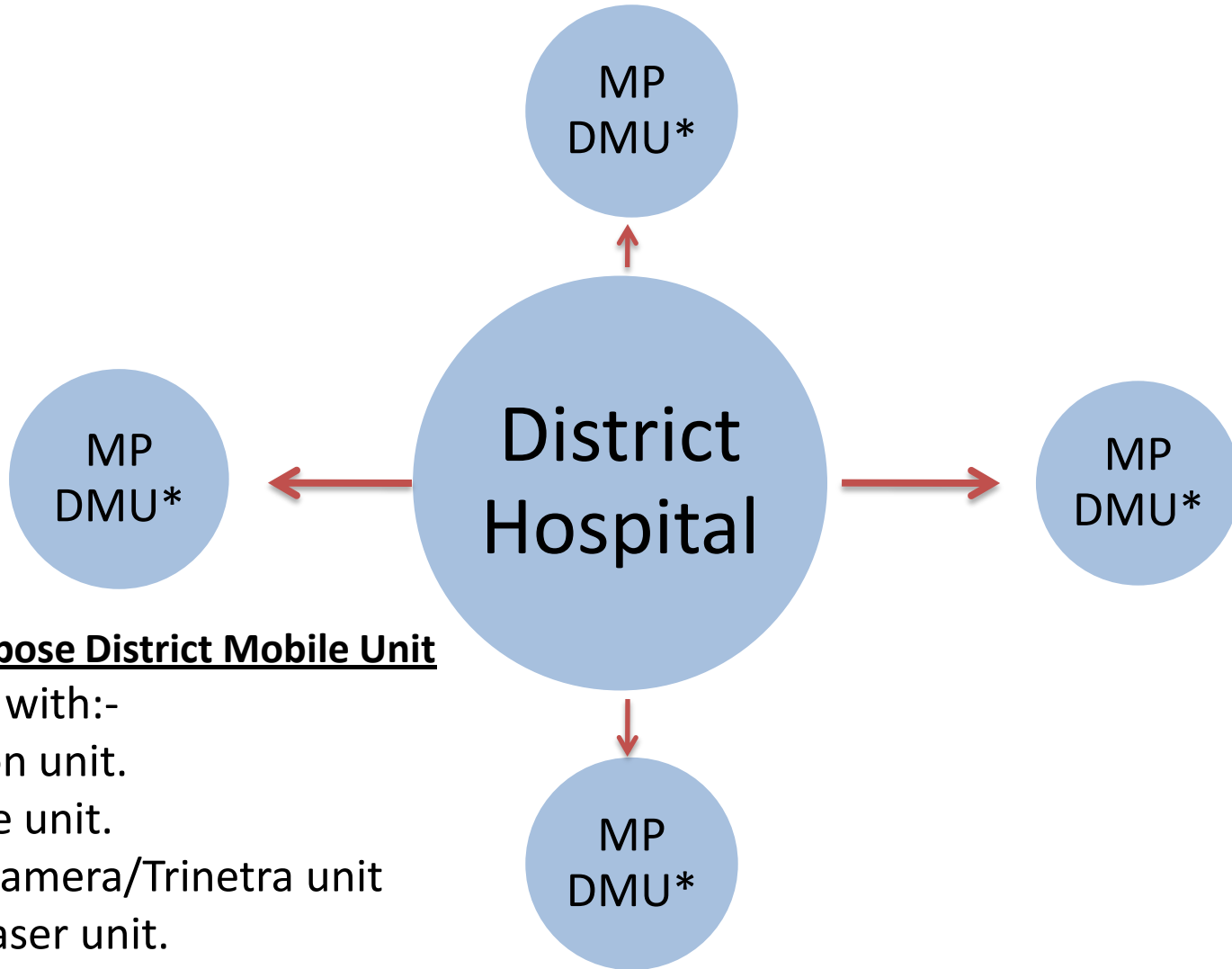
# Empanelling of Private Eye Doctors to see emergency & referred cases



# Strengthening of NGO Hospitals to provide free/subsidised eye care services



# Taking Eye Care Service to door steps



## \*Multipurpose District Mobile Unit

Equipped with:-

- Refraction unit.
- Spectacle unit.
- Fundus camera/Trinetra unit
- Mobile laser unit.
- Mobile Eye OT (Pilot study).

# Up grading PHCs/Vision Centres

- Vision centres to be established wherever non- existent at present.
- Enhanced funds shall be available for upgrading and establishing.
- Provision of a good quality direct ophthalmoscope and a good quality slit lamp to enable the PMOA to pick up common eye diseases and refer the patients to near by eye doctor.

# Up grading Districts Eye Units

- District Eye Units to be upgraded to provide primary and secondary level eye care.
- Up gradation to be done on all fronts as mentioned later in this presentation.
- District Eye Surgeons to collaborate with RIO & Medical college if existing in the district or a private eye hospital/NGO hospital.
- Capacity building to be done for diagnosis and treatment of eye diseases whenever possible.

## ROPING IN SERVICES OF MAJOR PRIVATE EYE HOSPITALS/CLINICS AT DISTRICT LEVEL

- As depicted in the slide earlier, centres for providing primary/ emergency eye care and also for post operative care to be listed by the district eye surgeons/DPM on terms and conditions to be decided later.
- This will save lot of efforts (time,money,travel) to the rural folks living more than five kilometers away from the district hospital.

# Up grading RIOs/Medical Colleges

Instrument	Disease	Instrument	Disease
Phaco Unit (Advanced)	Cataract	Endo laser	Retina
Microscope (High end)	Multipurpose	OCT machine	Retina
A scan	Cataract	Set of Prisms	Squint
Slit lamp with digital imaging	Multipurpose	Prisms bar	Squint
Yag laser	Cataract, GL	Bagolini glasses	Squint
Vitreotomy machine	Vitreo-retinal	Titmus fly-test	Squint
Specular Microscope	Keratoplasty	Giant Magnet	Intra Ocular FB
Applanation tonometer	Glaucoma	B- Scan	Trauma
Non-contact tonometer	Glaucoma	VER	Optic nerve path
Goldman perimeter	Glaucoma	Multipurpose scanner	Mass screening
Nerve fibre layer analyzer	Glaucoma	High-end machine	Sterilization
Indirect Ophthalmoscope	Retina	OT Scrubbing units	Foot operated
Fundus camera	Retina		
Argon-green laser	Retina		

# Networking of Services amongst all Eye Care Units in a districts

S/N	HOSPITALS	Year	Cat-ops	KP	Specs SES	D.R.	GS	VR	Paed S.	Laser
1	RIO									
2	Medical College									
3	District Hospital									
4	Sub District Hospital									
5	NGO Hospital-1									
6	NGO Hospital-2									
7	NGO Hospital-3									
8	Private Eye Hospital -1									
9	Private Eye Hospital -2									
10	Private Eye Hospital -3									
11	Private Practitioners									
12	Religious Social Organization Hospital									

**Cat-ops**      **Cataract Operation**

**D.R.**            **Diabetic Retinopathy**

**KP**              **Keratoplasty**

**GS**              **Glaucoma Surgery**

**Specs SES**    **Spectacles provided under School Eye Screening**

**VR**              **Vitro Retinal Surgery**

**Paed. S.**        **Paediatric Surgery**

# NGOs Eye Institutes / Hospitals

- District wise directory of NGO hospitals.
- Listing of major NGO Eye institutes with tertiary care facilities.
- Capacity building for new initiatives.
- Trainings for eye surgeons available in NGO institutes.
- List of NGO hospitals performing more than 500 cataract surgeries per annum.

# Asha Worker/MPW

Total no. of Asha selected 8,32,640

1 worker/per 1000

## Domain of eye treatment

- Bacterial conjunctivitis
- Ophthalmia Neonatorum
- Eye flu
- Trachoma
- Stye
- Early dry eye
- Night Blindness
- Cataract, Corneal opacity, Refractive error, Squint, diabetes recognition



# Primary Eye Care

## ROLE AND RESPONSIBILITY of PMOAs

**Screening and identification of eye diseases at Primary level:**

- **Cataract**
- **Uncorrected refractive errors**
- **Glaucoma**
- **Childhood blindness**
- **Diabetic retinopathy**
- **Squint**
- **Trachoma**
- **Corneal opacity**
- **Uveitis**
- **Screening for colour vision (not for issuing certificate)**

# Primary Eye Care

## ROLE AND RESPONSIBILITY of PMOAs

Treatment/ Medical intervention at Primary level (PHC) of the following common eye diseases

- Trachoma
- Conjunctivitis
- Allergies of eye lids and conjunctiva
- Dry eye
- Eyelid problems (blepharitis, stye, chalazion)
- Vitamin A Deficiency
- Lacrimal system Disorder,
- Superficial corneal abraisou

# Primary Eye Care

## ROLE AND RESPONSIBILITY OF MEDICAL OFFICER IN PHC

- **Should be able to recognize and treat/refer**

<u>Anterior segment diseases</u>	<u>Posterior segment diseases</u>
All types of lid & lacrimal sac diseases	Vitreous haemorrhage
All types of blunt and penetrating trauma	Diabetic retinopathy
Different types of conjunctivitis ,Keratitis	Glaucomatous optic disc
Superficial and deep corneal foreign bodies	Retinal detachment
Cataract in different stages of development	Macular hole/burn
Narrow and open angle Glaucoma	
Acute and chronic uveitis	
Episcleritis and scleritis	
Ocular dermoids and lid, tumors etc	
Vit –A deficiency –night blindness, dry eyes	



**Screening for Diabetic Retinopathy,  
Glaucoma, refractive errors & Cataract in one  
GO**

# Up-gradation

- Full range of diagnostic instruments
- Spacious OT with separate clean scrubbing area
- Full range of surgical equipment including multiple sets of cataract surgery instruments
- High resolution microscope with x-y coupling
- Vital machines for patient care during surgery
- High speed sterilization units and chemicals
- Procurement of pre-sterilized drapes and gowns etc. for special emergency situations

## Current availability of Equipment in Each District of State

Name of State:-

Sr. no	Name of Equipment	No. & Name of District											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Visual acuity drums												
2	Refraction Units												
3	Ophthalmoscope Direct												
4	Ophthalmoscope indirect												
5	slit lamp												
6	Ishihara color vision book												
7	A scann												
8	Keratometer												
9	Auto refractometer												
10	Gold man Perimeter												

Contd.. On next



Taking NPCB ahead in quality

# Hands-on training for Eye Surgeons

- Keratometer
- A- scan
- Microscope with XY coupling
- Phaco-machine
- ND Yag laser
- Applanation Tonometer
- Goldman perimeter
- Goldman three mirror
- Indirect ophthalmoscope
- Fundus camera
- Flourosein Angiography unit
- OCT in medical college
- Argon green laser
- Slit lamp with digital imaging
- Specular microscope in Eye Banks
- Emailing of files

# Quality issues in cataract surgery

## Dictums- Pre-Operati

**Evaluate - your infrastructure .**

**Know well - Your machines.**

**Procure - what is lacking.**

**Check – The quality of consumables.**

**Engage – An anesthetist for monitored anesthesia surgery whenever required .**

**Instruct – Your associates well about the kind of service you expect from them.**

**Ensure – proper sterilization of OT/OT material.**

**Observe – All universal precautions.**

**Keep – All relevant records.**

# Quality issues in cataract surgery

## Dictums- Intra-operative

Learn- Fully well the technique before trying on a patient

Have the presence - of a senior conversant with the  
technique

Seek help – If complication has occurred, don't try to  
hide it.

Ensure – Presence of minimum support staff.

Maintain - Adequate supply of consumables/non  
consumables in OT premises

# Quality issues in cataract surgery

## Dictums- Post-operative

Provide – Adequate space for post-op recovery.

Remain - Vigilant in the post operative period.

Check – Vision on regular basis.

Deliver – Best corrected vision.

Keep – Records of technique/materials

Contemplate – If complication has occurred.

Admit – Your deficiencies/mistakes.

Rectify – Defects/ Improve technique.

# Barriers in attainment of best visual acuity

## Post cataract/Cataract IOL surgery

- Corneal Diseases
- IOL Defect /displacement/Deposits
- Vitreous opacities
- Chorio- Retinal Diseases
- Optic disc defects
- Visual pathway defects

# Capacity Building in district for new initiatives

Disease	RIO/Medical College	District Hospital	CHCs	PHCs/ Vision Centres	NGO Hospitals	Private Eye Hospitals
Cataract						
Refractive Error						
Eye Bank						
Keratoplasty						
Diabetic Retinopathy						
Glaucoma						
Childhood diseases						
Squint						
Vitreo-retinal diseases						
Blunt & penetrating trauma						
Low Vision						

## Taking NPCB ahead in quality

### Taking stock of equipment at all levels in all districts

1. Regional Institute of Ophthalmology
2. Medical College eye department
3. District Hospital Ophthalmic unit
4. CHCs Ophthalmic Units
5. PHCs /Vision centres

Sr.no	Name of Equipment	No. of items	Year of Purchase	Functional	Non-functional
1					

# Norms for surgical training

Technique	Guidelines to be observed
ECCE	<ul style="list-style-type: none"><li>• Get acquainted with the OT equipment and Staff.</li><li>• Know the surgical steps thoroughly by reading/watching video.</li><li>• Make a list /remember the instruments required.</li><li>• Know your machine mechanics by reading brochure /talking to your guide/OT technician.</li><li>• Make a list of consumables, accessories/ optional</li></ul>
SICS	
Phaco	
Keratoplasty	
Glaucoma etc	
	<p><b>Your trainer/ mentor must be present through out the surgery to avoid any major mishap</b></p>

# Type of Training under NPCB

- ECCE/IOL Implantation
- SICS
- Phaco Emulsification
- Low Vision Services
- Glaucoma Diagnosis and Management
- Pediatric Ophthalmology
- Indirect Ophthalmology & Laser Techniques
- Medical Retina and Vitreoretinal Surgery
- Eye Banking and Corneal Transplantation
- Oculoplasty
- Strabismus Diagnosis Management both Medical and Surgical

# Slots of training for Eye Surgeons in following States during 2011-12

Sr. No.	Name of State/UT	District	No. of Trainee Slots	ECCE/IOL	SICS	PHACO	MR & VR	Ped. Opht	Eye Banking	Glaucoma	Oculoplasty	Low Vision	Stabismus	No. of candidates Nominated in 2011-12
1	Punjab	20	15	1	5	5	1	1	1	1				10
2	Haryana	21	15	2	4	4	1	1	1	1		1		12
3	Delhi	9	5		1	1	1	1	1					2
4	Gujarat	25	15	4	4	2	1	1	1	1		1		Nil
5	Rajasthan	33	20	3	8	5	1	1	1	1				10
6	Madhya Pradesh	56	30	5	10	10	1	1	1	1		1		15
7	Chhattisgarh	16	10	2	3	2	1	1	1					3

Thank  
You

