

Concept of Vision Centre

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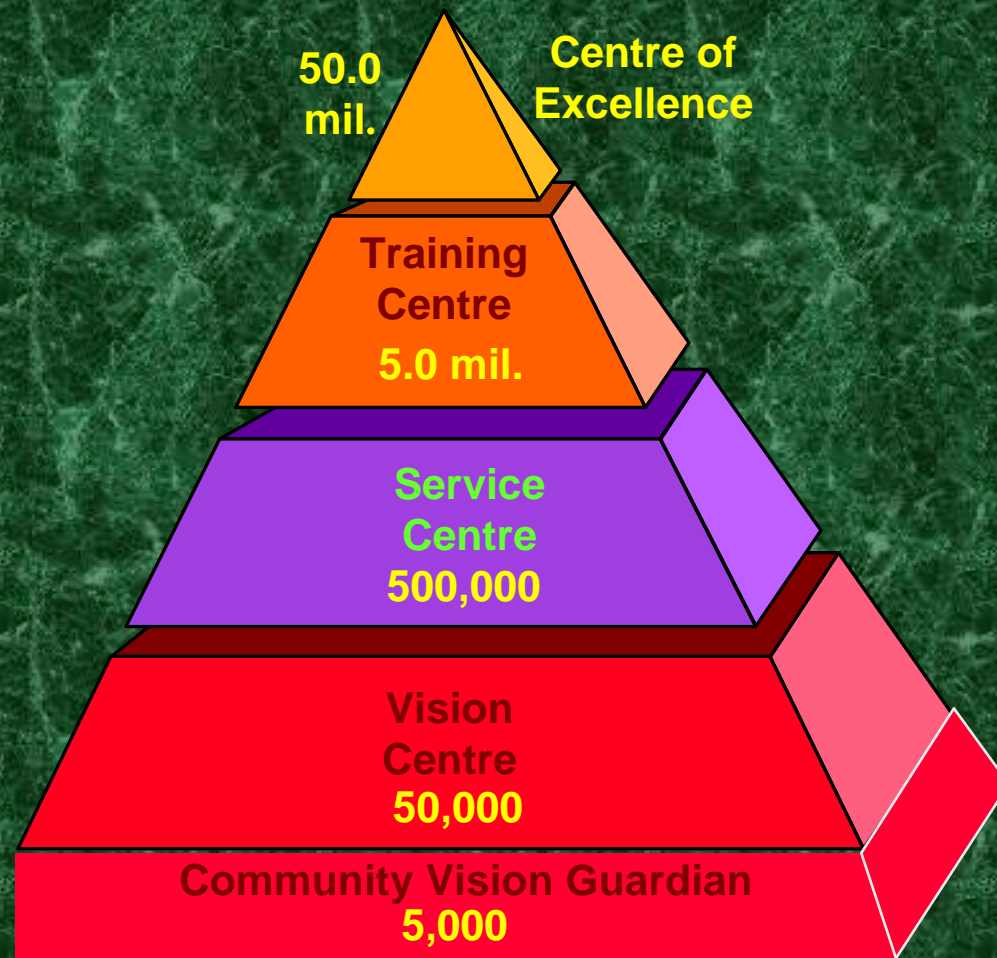
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7 October 2007 at October summit, Madurai





- ❖ **Details of Vision Centre Concept**
- ❖ **Strategies for sustenance**
- ❖ **Learning**
- ❖ **Future Direction**

Vision Centre Concept

❖ Significant proportion of eye problems can be corrected or detected at primary care level

❖ Accessibility and affordability

- **Substantial Savings (Sight & Money)**
- **Issues of equity**

Vulnerable & Un-reached

- ❖ Women
- ❖ Illiterates
- ❖ Underprivileged
- ❖ marginalized
- ❖ Productive age group

Vision Centre Concept

- ❖ Major causes of visual impairment and blindness
- ↓
- ❖ Correcting the Uncorrected Refractive Error & Identify potentially blinding diseases
- ↓
- ❖ Educate and refer further to Service Centre

Vision Centre Concept

- ❖ Capital cost : \$10,000
- ❖ Recurrent cost : \$ 160 - 200 per month

- (a) Sale of low cost spectacles
- (b) Community (kind/cash)
- (c) Service Centre/ TC revenue

Vision Centre Concept

- HOW DOES ONE EAT AN ELEPHANT?
 - We take one bite at a time
 - We take repeated sustained bites as opposed to random bites

Million Population



- 1 Service Centre

- 10 VCs



Infrastructure at VC

No	Infrastructure	Activity
1	Vision Charts (distance and near) and drum	Vision Assessment
2	Streak Retinoscope and Trial set	Refraction
3	Slit Lamp	Anterior segment examinations
4	Applanation tonometer	IOP
5	Direct Ophthalmoscope	Optic Disc and Retinal examination
6	Spectacle frames and optical lenses	Dispensing of spectacles
7	Lensometer	Determining power of current spectacles



Vision Centre in Tanur Village of Adilabad



Vision Centre in Bhainsa Village of Adilabad



VT in action at Kubeer





Accessibility

- ❖ Location near a public transport system
- ❖ Location at the busiest hub of surrounding villages
- ❖ Within a radius of 50 kilometers around a secondary eye care center
- ❖ No permanent Ophthalmologic services

Availability

- ❖ Open 6 days a week
- ❖ 9.00 am to 6.00 pm
- ❖ Human resource always available

Affordable

- ❖ Screening services : free of cost
- ❖ Spectacles : lower than market cost
- ❖ Referral : free of cost to underprivileged

Human Resource

- ❖ **Vision Technician**
- ❖ **Local Recruit, Completed 12th**
- ❖ **Trained for a year at LVPEI**
(Theory and Hands on)
- ❖ **Supervised Internship at Secondary Centers**



Human Resource

- Support Systems (at secondary center)
 - ❖ Optical assistant – 10 Vision Centres
 - ❖ Optician – SC and 10 Vision Centres
 - ❖ Administrator – Service Centre

Quality

- ❖ Rigorous training and certification
(no compromise- stay till he/she is ready)
- ❖ Audit
 - Actual observation of examinations
 - Audit of Clinical Records

Quality

- ❖ Ophthalmologist at Secondary center provides feedback to the vision technician on every referral
- ❖ If performance found not up to the mark, posted back at the secondary center under supervision of ophthalmologist

Financial Sustainability

Cost recovery mechanisms entirely dependent on sale of spectacles

- 26 % of people receive at < \$ 2
- 50 % of people receive at \$ 3 – 4
- 24 % of people receive at \$ 5 - 7

Sustainability

•COMMUNITY INVOLVEMENT:

- ❖ Mobilizing space and resources
- ❖ Help in setting up the vision center
- ❖ Selection of vision technicians
- ❖ Awareness generation

Sustainability through Integration

Health talks by HR

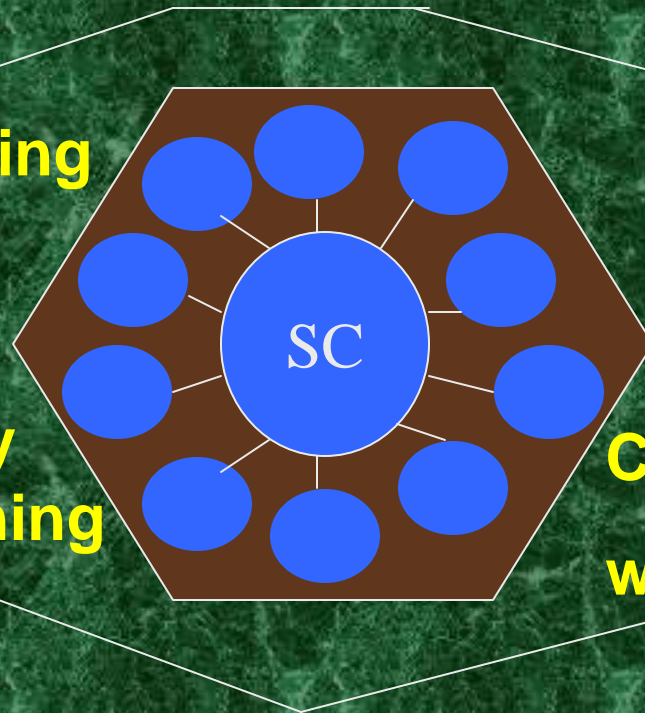
School Screening

Linkage with local medical practitioners

Community Eye Screening

Collaborations with stakeholders

Awareness about Eye Health



MICRO PLANNING

1. GOVERNAMENT

- Dept of education
- Women and Child welfare
- Sarva Shiksha Abhiyan



5 Villages
Around VC

4. Primary Health Centres

3. Registered Medical Practitioners

2. Voluntary Organizations

- NTR Trust

- ❖ Orientation
- ❖ Cross Referral System

MICRO PLANNING

Community Eye Care Activities : CEC



5 Villages
Around VC

Ex :Sarva Shiksha Abhiyan

School Eye Health

Potential supporters

Spectacles at no cost

Surgeries at no cost

Community ownership

STEP 1

Passes information on
Possible SUPPORTERS

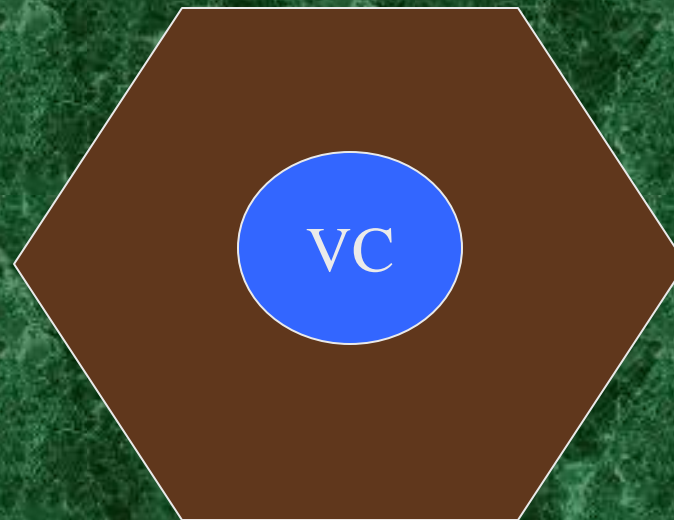
VC - coordinator

While doing survey

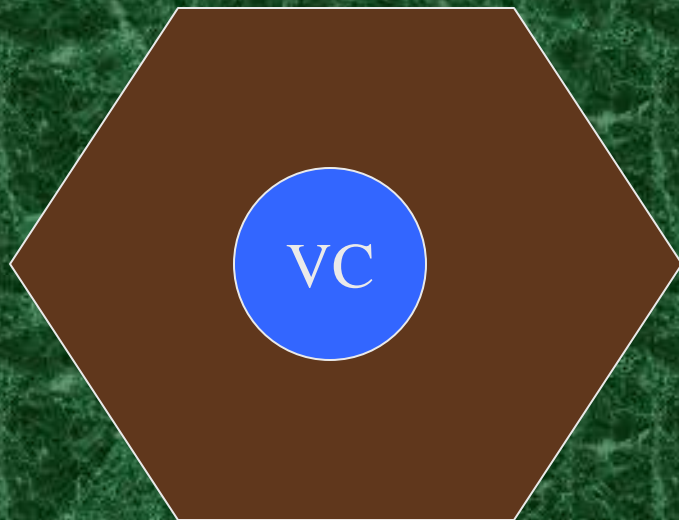
CEC WORKER

Gets the list of Villages for CEC work

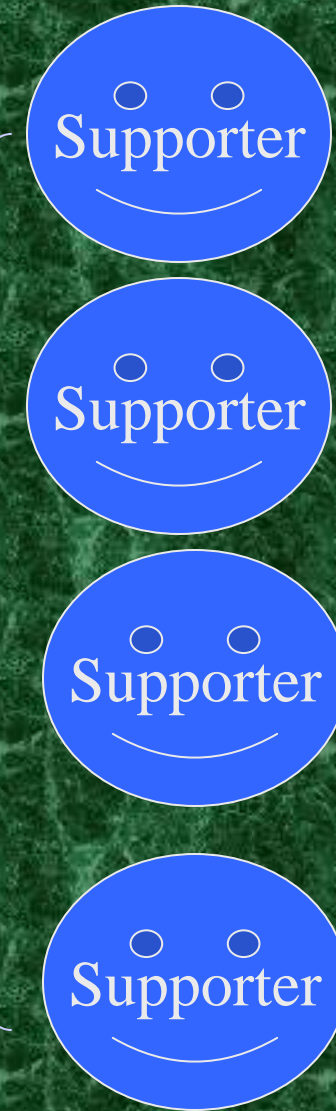
VC – Coordinator/Administrator



STEP 2



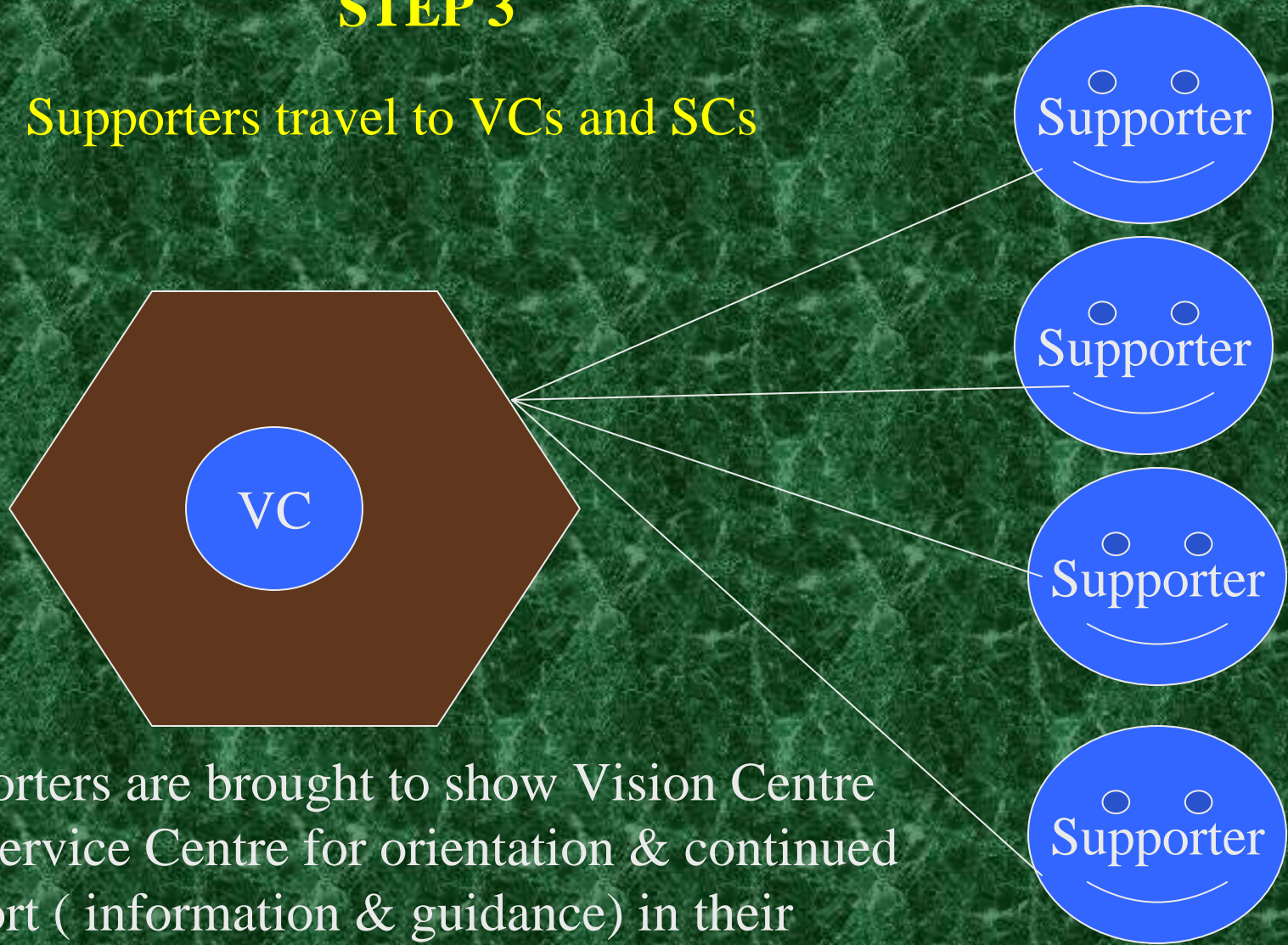
VC – coordinator
(Change agent)



Supporter : the cost of spectacles and logistics
for holding CEC

STEP 3

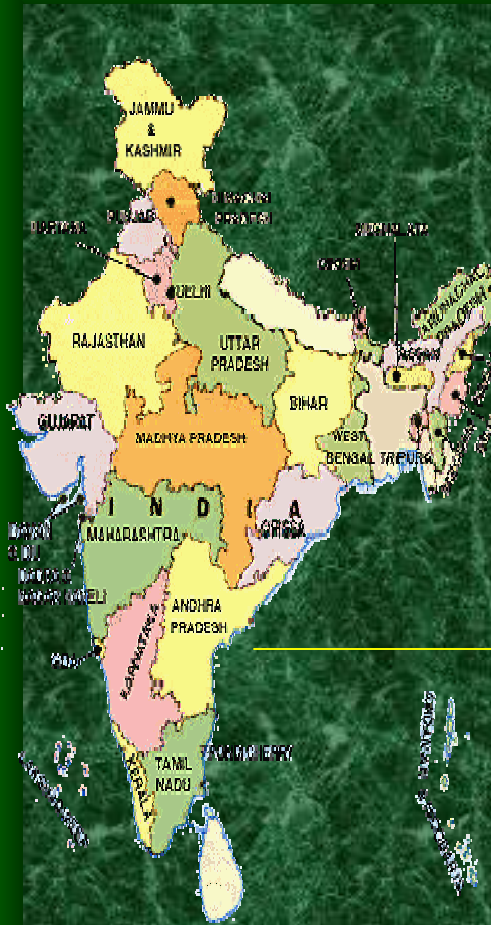
Supporters travel to VCs and SCs



Supporters are brought to show Vision Centre and Service Centre for orientation & continued support (information & guidance) in their villages

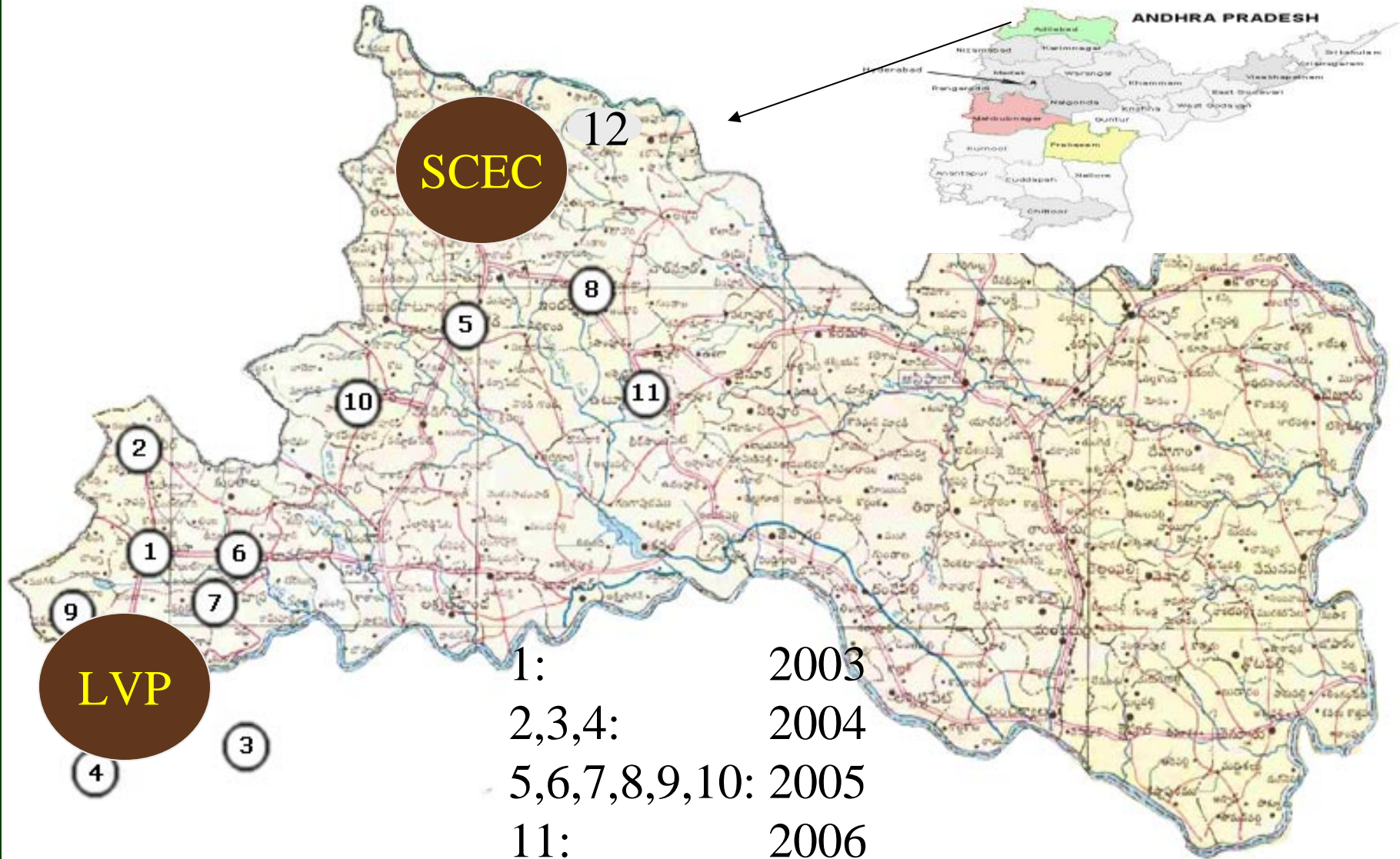
Sustainability

- ❖ HR RETENTION POLICY
- ❖ CONTINUING EDUCATION
- ❖ SUPPLY CHAIN & PRICING SYSTEM



33 Vision Centres

Adilabad District, Andhra Pradesh



Estimations from APEDS 2001, IOVS

❖ **2.4 % blind in rural areas**

❖ **45 % blind due to cataract**

❖ **9.4% Visually impaired**

Based on other reports

❖ **15 % require spectacles**

❖ **20 % use spectacles***

**Dandona R, Dandona L, Vilas K, Giridhar P, Prasad MN, Srinivas M. Population based study of spectacle use in southern India. Indian Journal of Ophthalmology. 2002; 50: 145-155.*

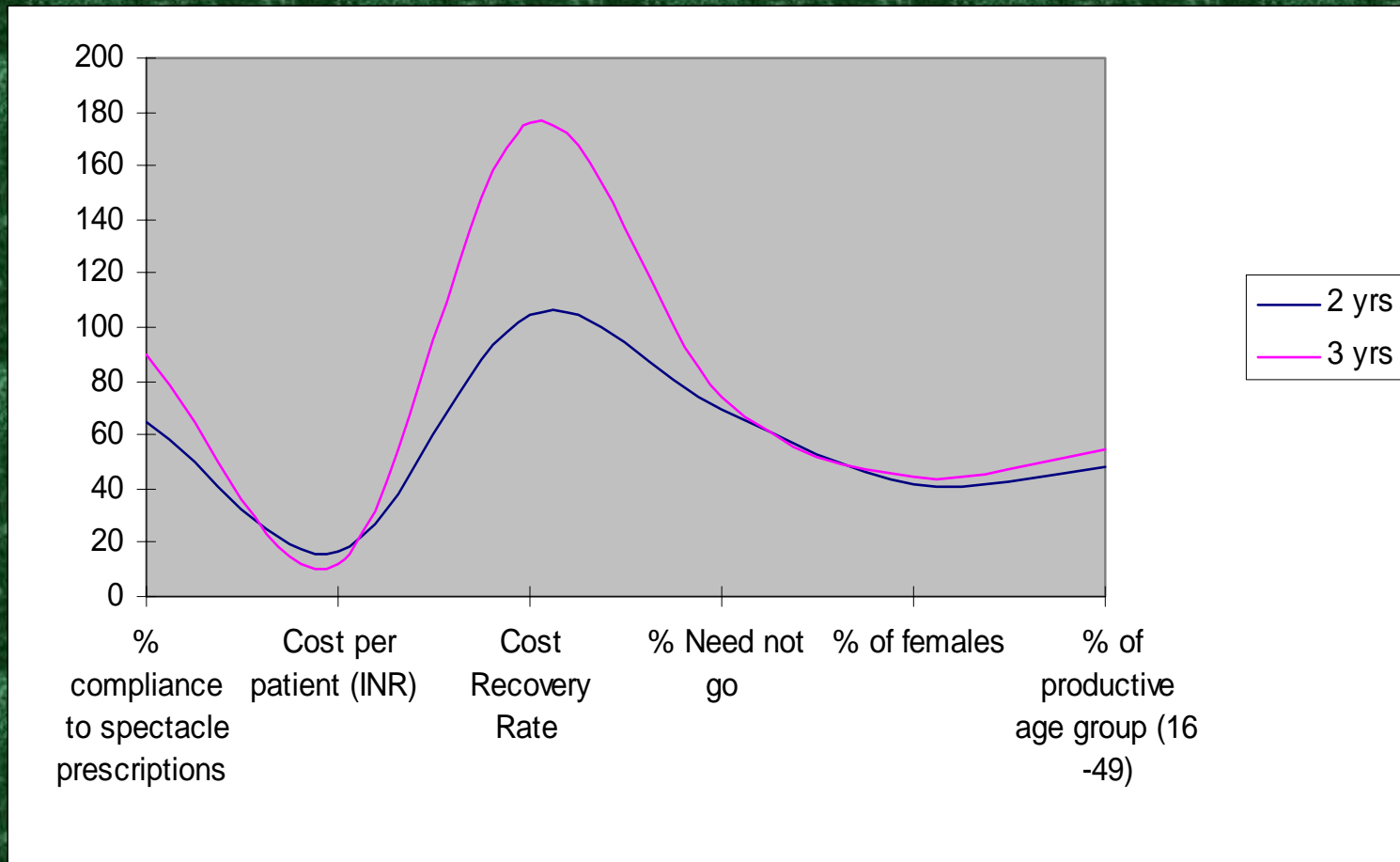


Vision Centre at Well off setting

Performance during April 2004 - March 2007

SERVICES	TARGET	COVERAGE	%
Screened	52,500	18,424	35.09
Dispensed spectacles	7,875	4,338	55.09
Bilateral Blind identified (<6/60)	1,260	881	69.92
Visually impaired (both eyes)	4,935	1525	30.90
No of blind people received cataract surgery at the referred secondary eye centre	567	204	35.98

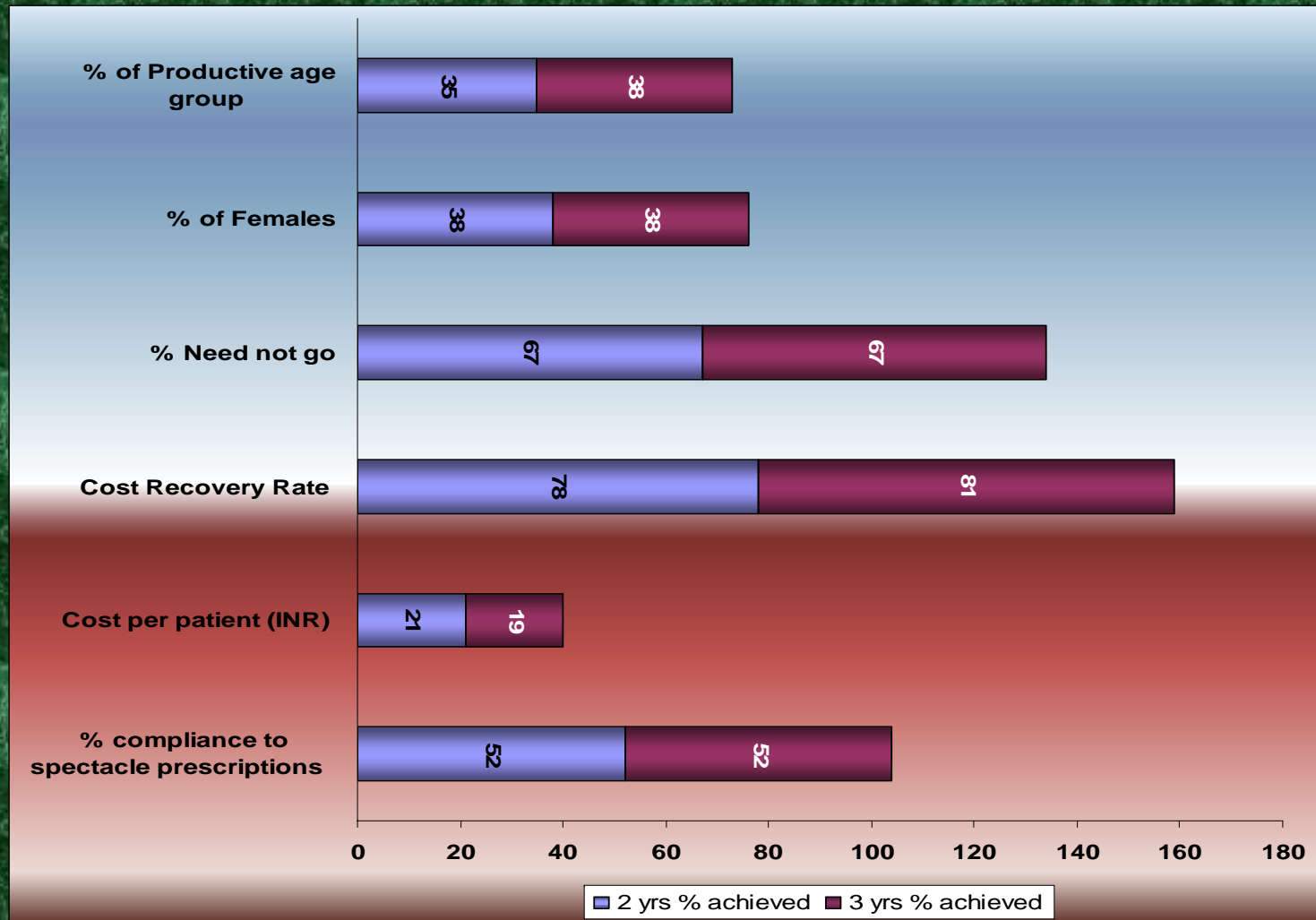
Well off setting



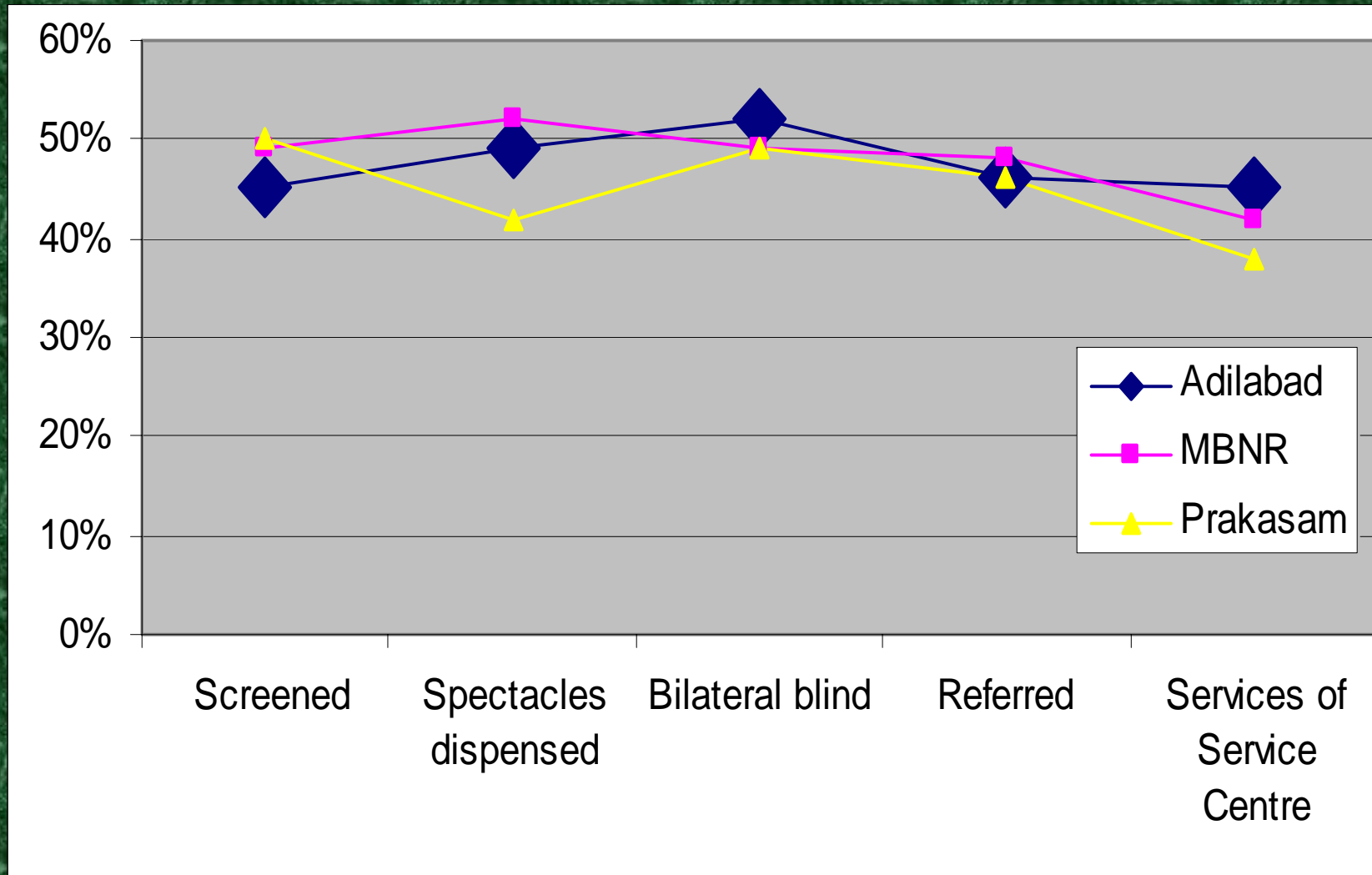
Vision Centre at interior & inaccessible

Performance during April 2004 - March 2007			
SERVICES	TARGET	COVERAGE	%
Screened	52,500	7,879	15.01
Dispensed spectacles	7,875	1,592	20.22
Bilateral Blind identified (<6/60)	1,260	346	27.46
Visually impaired (both eyes)	4,935	1,128	22.86
No of blind people received cataract surgery at the referred secondary eye centre	567	60	10.58

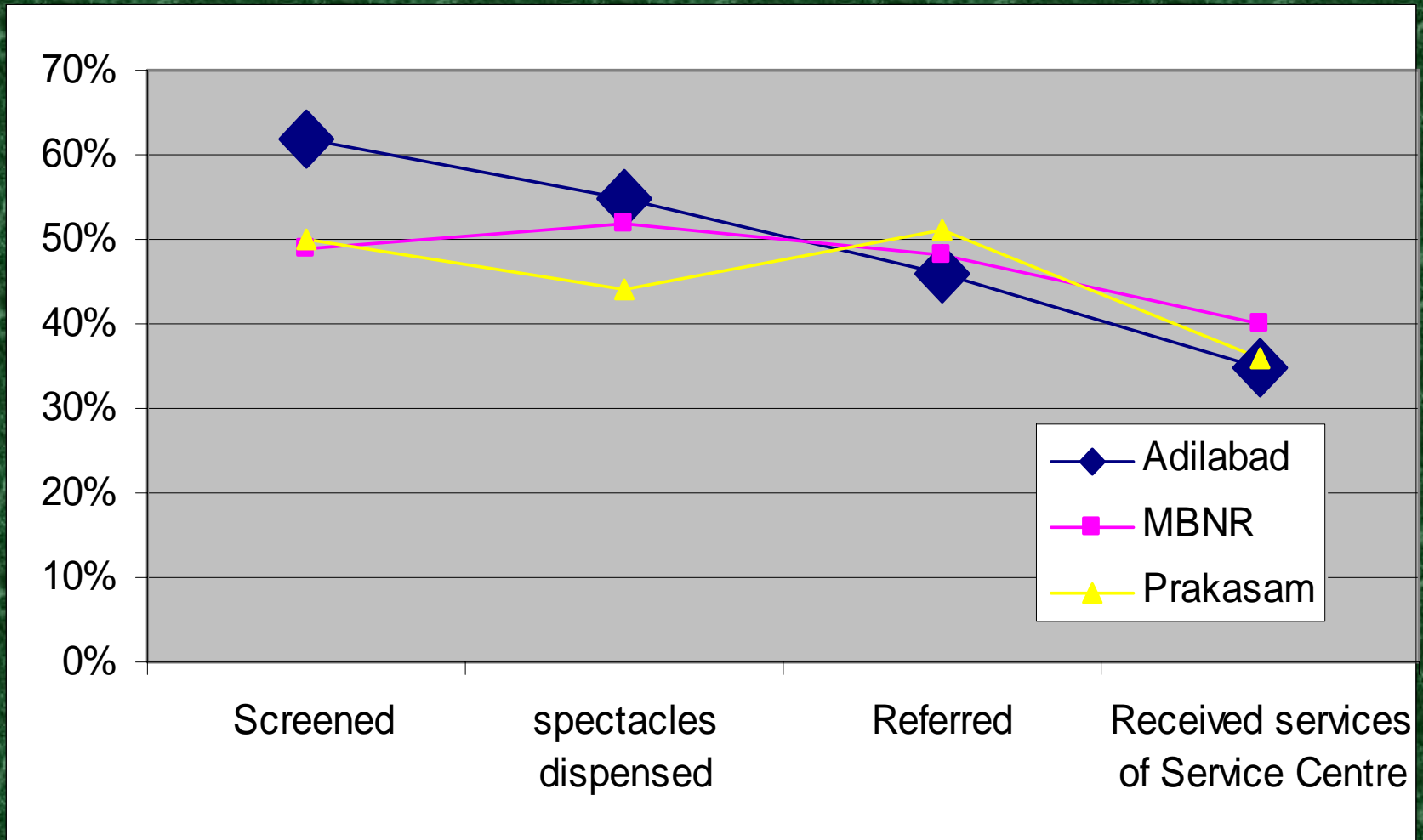
Interior & inaccessible



Participation of women in Vision Centres



Participation of 16 – 49 age group in Vision Centres



Cost of access to Refractive error services at Vision Centre(s) and at town-based clinic (s) (N= 31)

		Vision Centre (N = 31)	Other provider (N = 31)		
	COSTS	Mean	Mean	% difference	Sig. (2tailed)
1	Total indirect costs per patient	65.19	145.96	65	0.000
2	Total direct costs per patient	166.9	208.03	25	0.002
3	Total indirect and direct costs	232	354	55	0.000

Cost Implications

- ❖ Each sampled patient's net benefit was estimated at INR 122 (US \$ 3)
- ❖ Eleven Hundred and Sixty Five patients had received spectacles from the sampled Urban Vision Centre per year
- ❖ If we apply these cost estimates to this Urban Vision Centre, a net benefit of the Urban Vision Centre patients was INR 1,64,265 (US \$ 4106) per year.

- ❖ Similarly 542 spectacles per year were dispensed at the sampled Rural Vision Centre.
- ❖ If we apply cost estimates to the sampled Rural Vision Center, a net benefit of the Vision Centre patients was INR 76,422 (US \$ 1910)

Cost implications (secondary data)

- ❖ Nearly three-fourths of persons who accessed care at Vision Centres in urban setting (n = 13,894, 80.0 %)
- ❖ Vision Centres in rural setting (n = 6,444, 82.0 %) did not require further examination
- ❖ Such a trip would have cost a minimum of INR 65 (US \$ 1.8) as indirect cost for each person.
- ❖ This implies that approximately US \$ 25,009 due to Urban VC and US \$ 11,599 due to Rural VC

Patients' satisfaction with Services of Vision Centres in a well developed and remote Village settings

	Characteristics	Urban	Rural	
		Satisfied	Satisfied	p
	CONVENIENCE			
1	Transport Convenience	21(70.0 %)	13(38.2 %)	< 0.039
2	Easy to identify VC	15 (50 %)	21(61.8 %)	< 0.31
	FACILITY			
3	Working hours			p
4	Waiting room facility	4(13.3%)	23(67.6%)	< 0.0001
5	Waiting time at VC	30(100%)	21 (61.8%)	< 0.0001

Urban (N = 30); Rural (N = 34)

	Characteristics	Urban	Rural	
	HUMAN RESOURCES	Satisfied	Satisfied	p
6	Information and Guidance	28 (93.3%)	15 (44.1 %)	< 0.0001
7	Over all behavior with patient	28 (93.3 %)	8 (23.5 %)	< 0.0001
	VALUE TO PATIENT	Satisfied	Satisfied	
8	Importance of VC facility/Value to the beneficiary	24 (80.0 %)	14 (41.2 %)	< 0.002

	Characteristics	Urban	Rural	
	SERVICES	Satisfied	Satisfied	
9	Cost of spectacles	12 (40.0 %)	2 (5.90%)	< 0.0001
10	Quality of VC to Other provider	12 (40.0 %)	3 (8.80 %)	0.01
11	Spectacles Dispensing time as compared to other facilities	5 (16.7 %)	1 (2.90 %)	0.132
12	Affordability at Vc as compared to other facilities near by (whether VC services are affordable compared to other service providers)	21 (70.0 %)	13 (38.2%)	0.039

Change

- Local unemployed youth now converted to a eye health professional- Improved local respect and standing
- More optical services now establishing themselves within the community
- Ophthalmology “visits” more frequent

Problems

- Certification and career growth
- Dispensing medicines
- Are we setting up a parallel structure?
- Horizontal linkages
- The medical profession

Future Directions

- Improve Community Involvement
 - Vision Guardians
 - Village Health Groups
 - Community based Low Vision and Vision Rehabilitation
 - Dedicated Community worker for each VC
 - Eye Health Insurance
 - School eye health screening

Future Directions

- Community Involvement
 - Transfer ownership to vision technicians
 - Transfer ownership to self help groups
 - Transfer ownership to other NGO's
 - Career growth for VT- develop into optometrist



Decision to seek care

Four non physical triggers

1. Person can't cope up with pain or disability
2. The personal interference of ill health with social or personal relationships
3. Pressure from others
4. Perceived threat – in relation to physical or vocational activity

(N = 30 who did not seek care
N = 30 who sought care)

Factors associated with response to illness
and seeking medical advice (N = 30)

- ❖ Visibility & recognisability of symptoms
- ❖ Disruption to the life- work, family life, social activities
- ❖ Duration of symptom
- ❖ Individual tolerance threshold
- ❖ Level of personal understanding/knowledge
- ❖ Psychological process – fear
- ❖ Competing demands on an individual
- ❖ Opportunity cost

Change

Beliefs about the consequences of performing a behaviour and the value placed

Beliefs about whether other people would wish person to perform behaviour and the influence of other person



Behaviour intention



Behaviour change



Enabling Factors

Current referral channels before seeking from an eye care professional in rural areas of Andhra Pradesh

Villages of VCS : Males : 68 % (n = 22)

Females : 82 % (n = 26)

Villages of non VCS : Males : 78 % (n = 24)

Females : 65 % (n = 24)

1. Family

2. Local healer

3. Medical shop

4. Registered medical practitioners

5. Physician

1 to 6 stages for women in near & distant villages

3, 4, 5 & 6 stages for men

6. Eye care professional

Why is this – Not available and expensive

- Where there is passion, there usually is less science
- Where there is much science, there usually is less heart
- Blend your passion with science- You can make a difference

Thank You

- ✓ Lavelle Fund For the Blind, INC; USA
- ✓ Later-Day Charities, USA
- ✓ Ravi Brothers Foundation, USA
- ✓ Sight Savers International, UK
- ✓ Vision CRC, Australia

