

“Study of determination of optical delivery turnaround time in vision centers of LV Prasad eye institute in Krishna district of Andhra Pradesh”

Presented By:

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Organization Introduction – LVPEI:

- Established in 1987, L V Prasad Eye Institute (LVPEI), a World Health Organization Collaborating Centre for Prevention of Blindness, is a comprehensive eye health facility. The Institute has ten active arms to its areas of operations: Clinical Services, Education, Research, Vision Rehabilitation, Rural and Community Eye Health, Eye Banking, Advocacy and Policy Planning, Capacity Building, Innovation and Product Development.

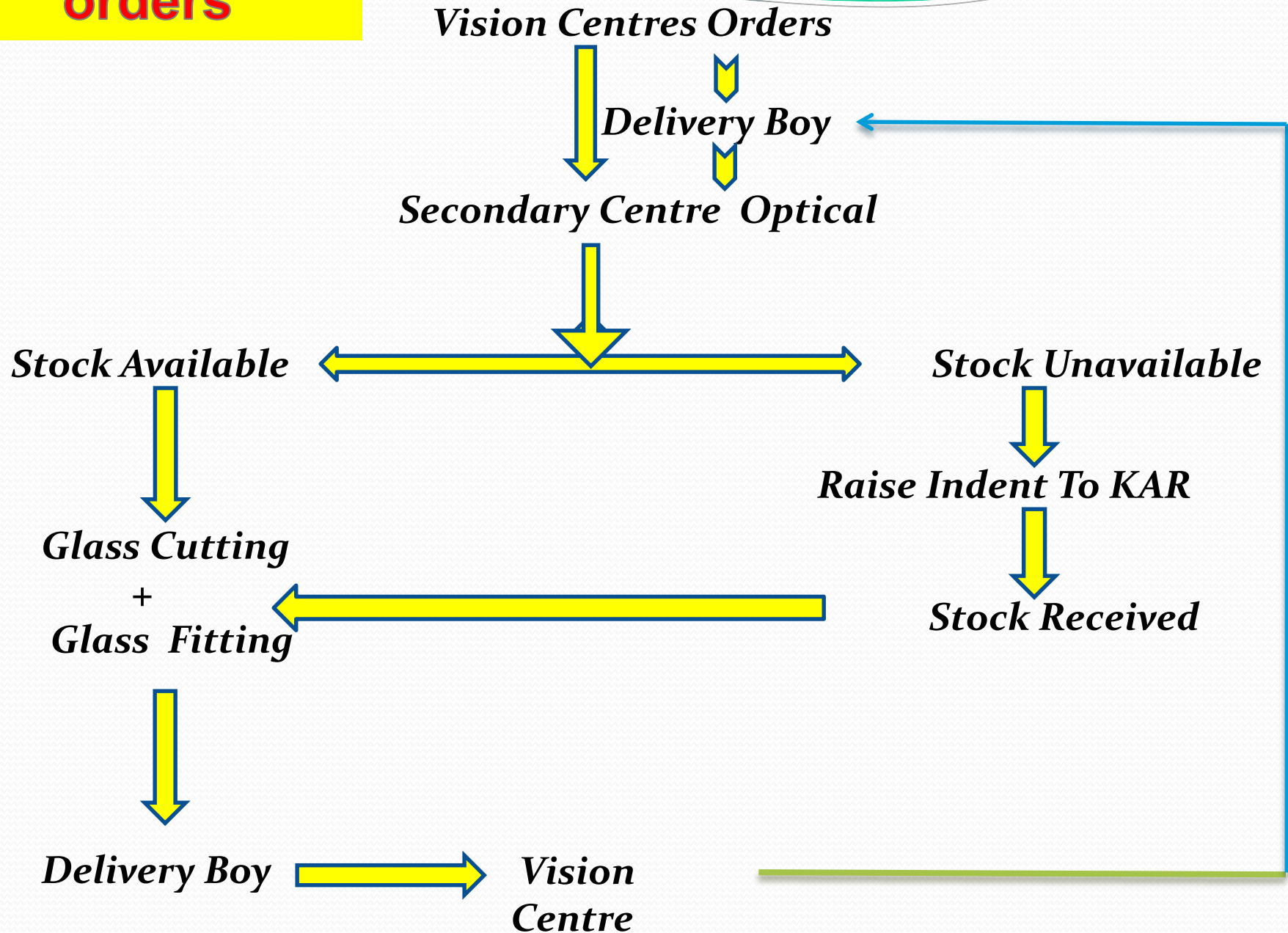


- ***Vision centre*** is an innovative concept of L V Prasad Eye Institute for provision of primary eye care in remote rural areas.
- Each vision centre is intended for serving a population of 50,000-1, 00,000. Each vision centre is staffed by 1 year trained Vision Technician recruited from the local community.
- The centre is free-walk in clinic, well equipped to provide basic eye screening (without pupillary dilatation) & refraction.
- A small optical outlet is an integral part of a vision centre, which is equipped with a good stock of frames. Each Vision Centre is attached to one Secondary level eye centre.
- Ten such vision centers are attached to one secondary centre. The secondary centre acts as a nodal point for fitting & distribution of spectacles for all the vision centers and also provides administrative and logistics support.

3R's : vision center

- *Recognition of common blinding conditions*
- *Refraction and dispensing of spectacles*
- *Referral to higher levels of care, as per the need.*

Vision centre's orders





Aim: To determine the optical delivery turnaround time in vision centers.

Objective:

- To analyze the time taken from order booked at vision centre to order received at vision centre from optical store.
- To provide recommendations based on study findings.

● **METHODS:**

- **Research question:** what is the optical delivery turnaround time in the vision centers of LV Prasad eye institute located in Krishna district of Andhra Pradesh?

- **Study location:**

This study is conducted at vision centers of LV Prasad eye institute located in Krishna district of Andhra Pradesh

- **Inclusion criteria:**

All the optical orders ordered and received at vision center during the study period

- **Exclusion criteria:**

- ☐ Optical orders which are ordered at vision center and didn't received at vision center during the study period.
- ☐ Optical orders which are delivered to patient through courier.
- ☐ Optical orders which are cancelled after order are excluded from the study.

- **Study duration:** 3 months
- **Sample size:** 1538 samples of optical orders are taken for the study
- **Research design:** - cross sectional descriptive study.
- **Data collection type:**
Data is collected from the optical and screening registers present at the vision center .
- **Data collection method:**
A format of data collection was prepared and information from the optical and screening registers present at the 19 vision centers is used to collect data and fill it the format prepared.

Analysis:

- The data was analyzed using Microsoft EXCEL
- Simple tabulation of data

Ethical consideration

- The data collected is handled with confidentiality; permission to carry out the project was obtained from the head of Vision center network.

- **Methodology:**
- This study utilized 1538 optical orders placed at 19 vision centers of LV Prasad eye institute located in Krishna district of Andhra Pradesh between January 1st 2019 to April 15th 2019. Out of 1538 optical orders placed at vision centers during that time period, 1501 orders are used for analysis, excluding cancelled orders, orders delivered to patient directly through courier from tertiary center and orders not yet received at vision center during the time of the study.
- Optical order data of 1538 patients is retrieved from optical and screening registers maintained at the vision center. A format of data collection was prepared and the information from optical and screening registers maintained at the vision center was used to collect data accordingly.

Results

- A total of 1538 samples of optical orders were observed. Out of 1538 samples 1501 samples were taken for analysis. Rest 37 samples were excluded.

1) **SAMPLE DISTRIBUTION :**

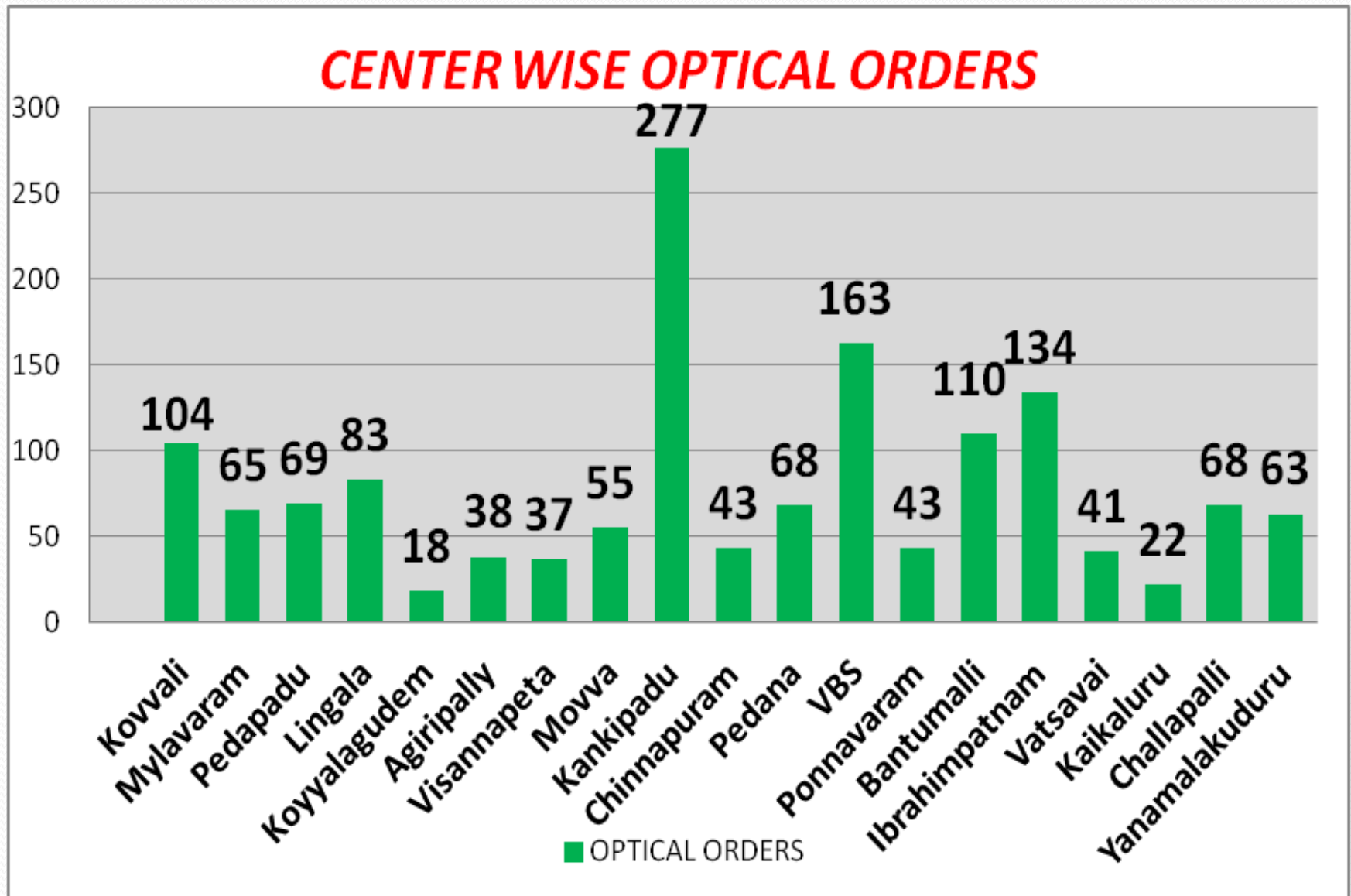
Samples	No of samples	Percentage of samples
Samples included	1501	97.5
Samples excluded	37	2.4
Total	1538	100

❑ Around 98 percent of the total opticle order samples collected are used for data analysis and interpretation.

2) EXCLUDED SAMPLE DISTRIBUTION :

Reasons for exclusion	No of samples	Percentage of samples
Cancelled orders	1	2.7
Orders sent through courier	3	8.1
Orders not yet received at VC	33	89.2
Total	37	100

3)Center wise total optical orders :



Order type :

TYPE OF ORDER

■ LENS ■ ONLY FRAME ■ READING GLASSES ■ SUN GLASSES

1324



47

ONLY FRAME

100

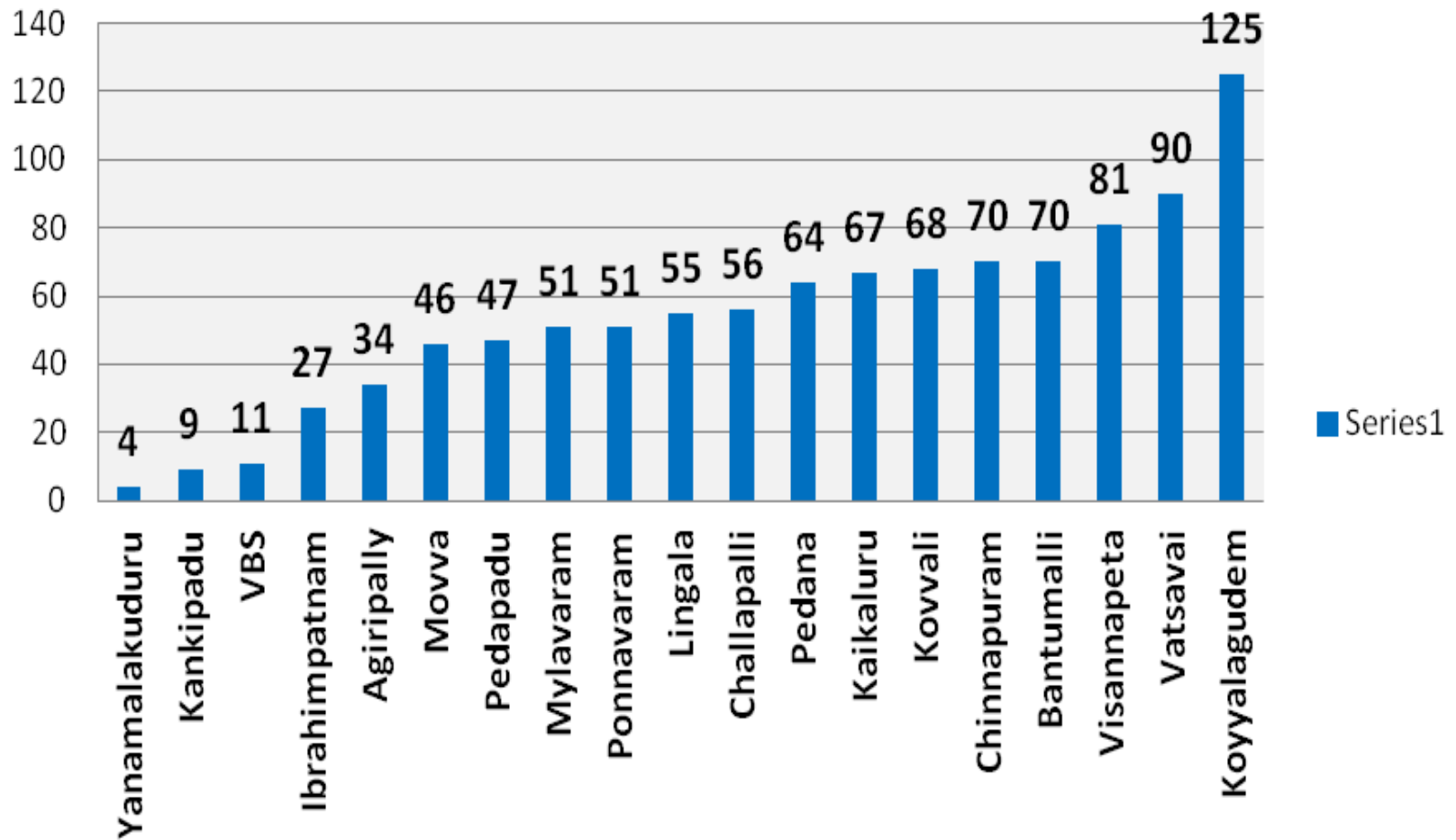
READING
GLASSES

30

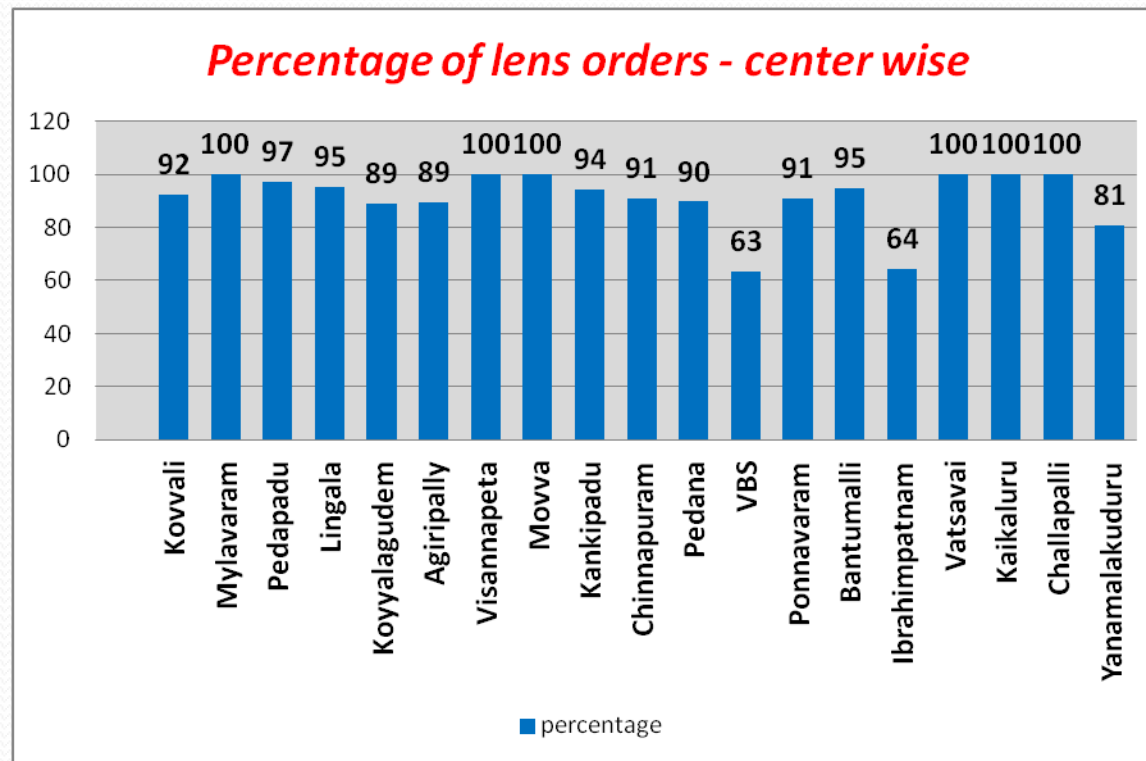
SUN GLASSES

Distance from tertiary center:

DISTANCE FROM TERTIARY CENTER (in KM)

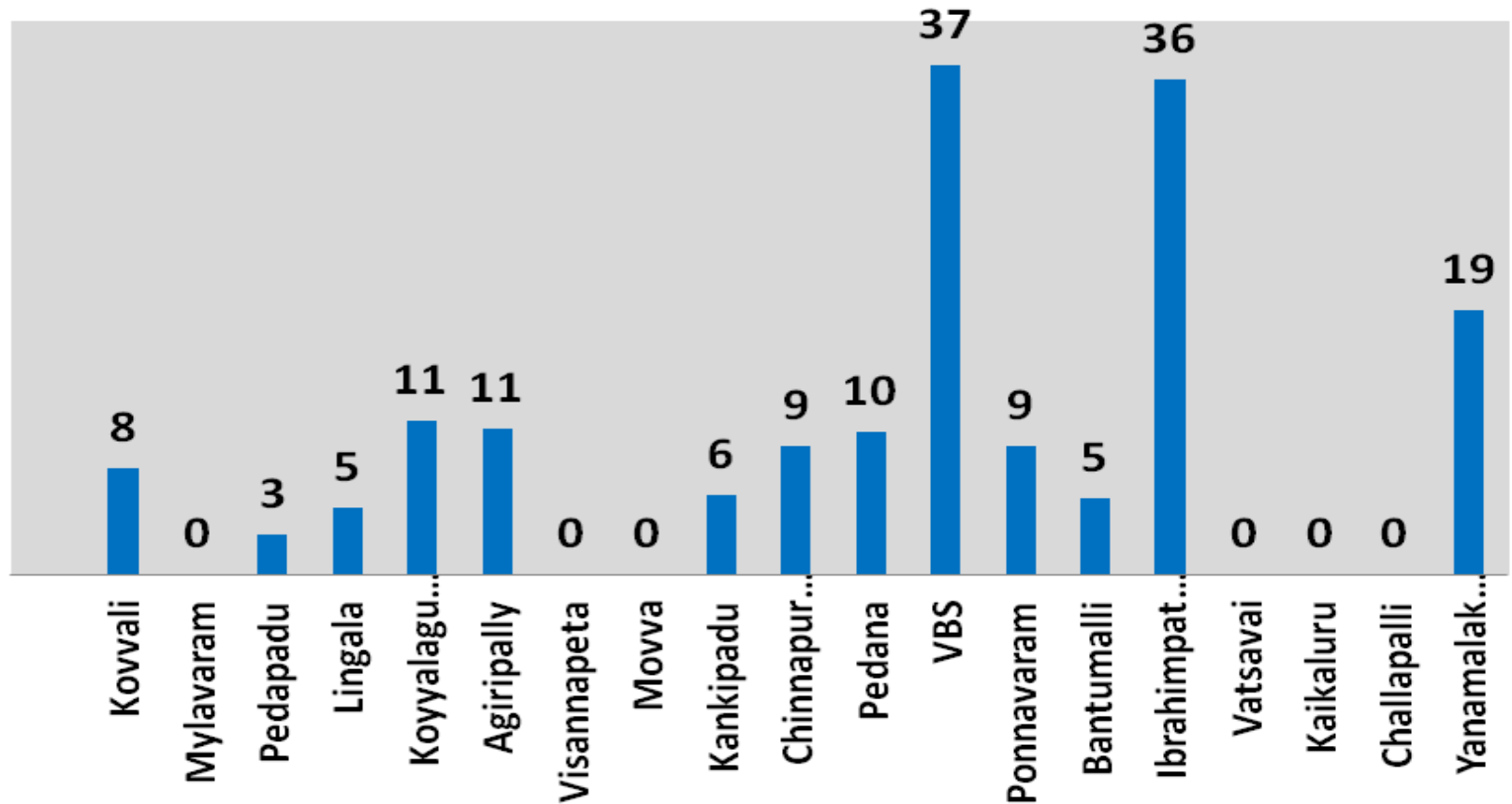


Percentage of lens ordered out of total optical orders at vision center :

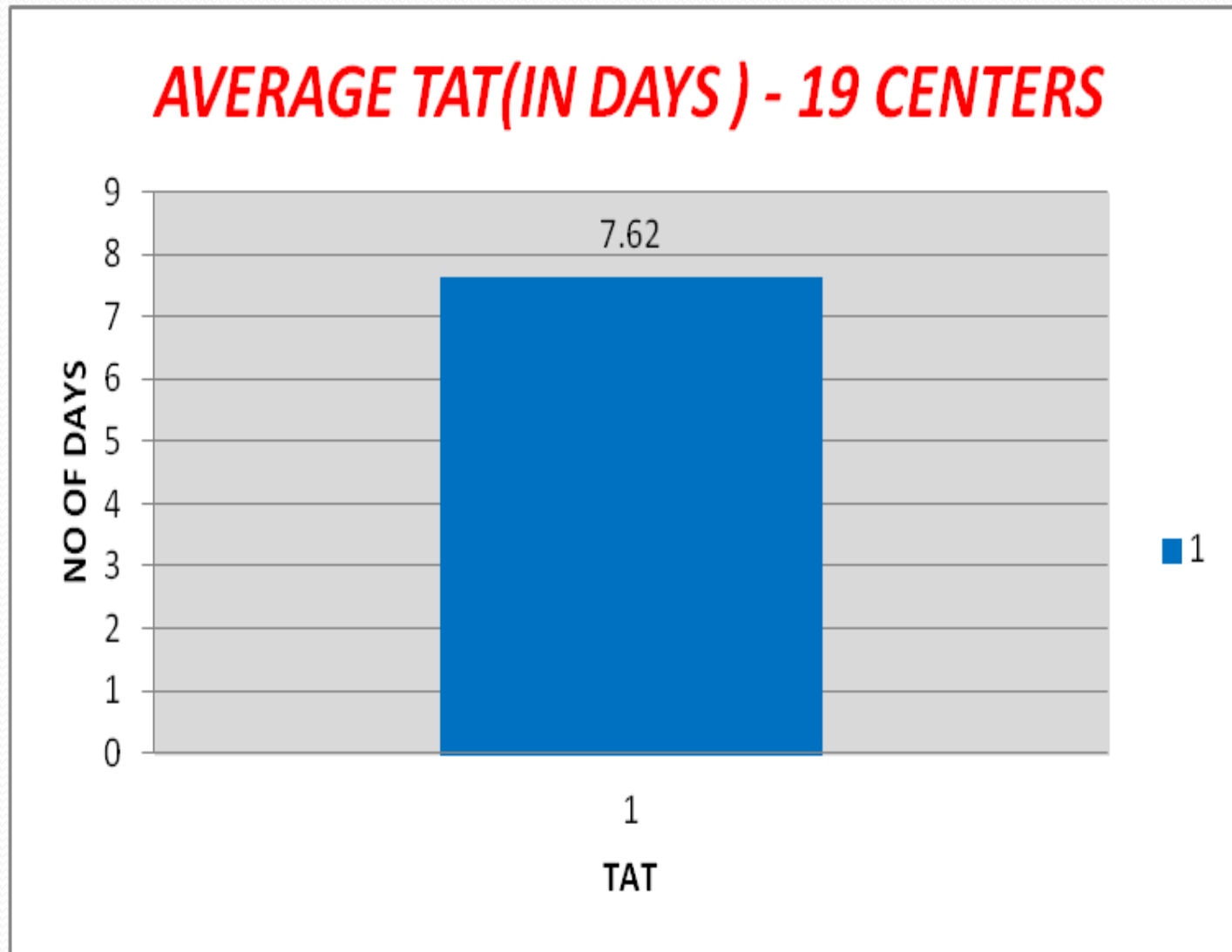


Percentage of sunglasses ,reading glasses and only frames ordered - center wise:

Percentage of sunglasses ,reading glasses and only frames ordered - center wise

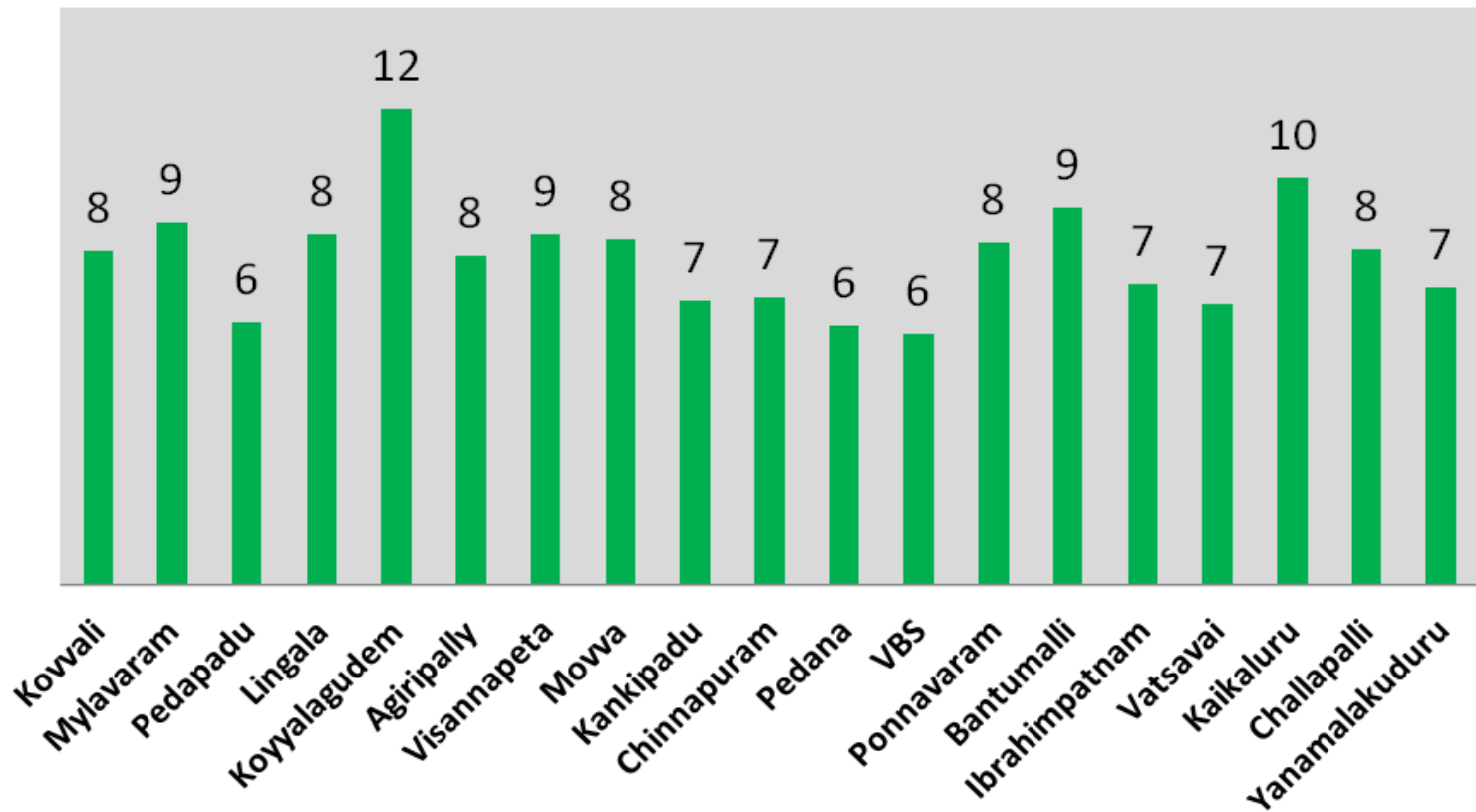


Total average TAT



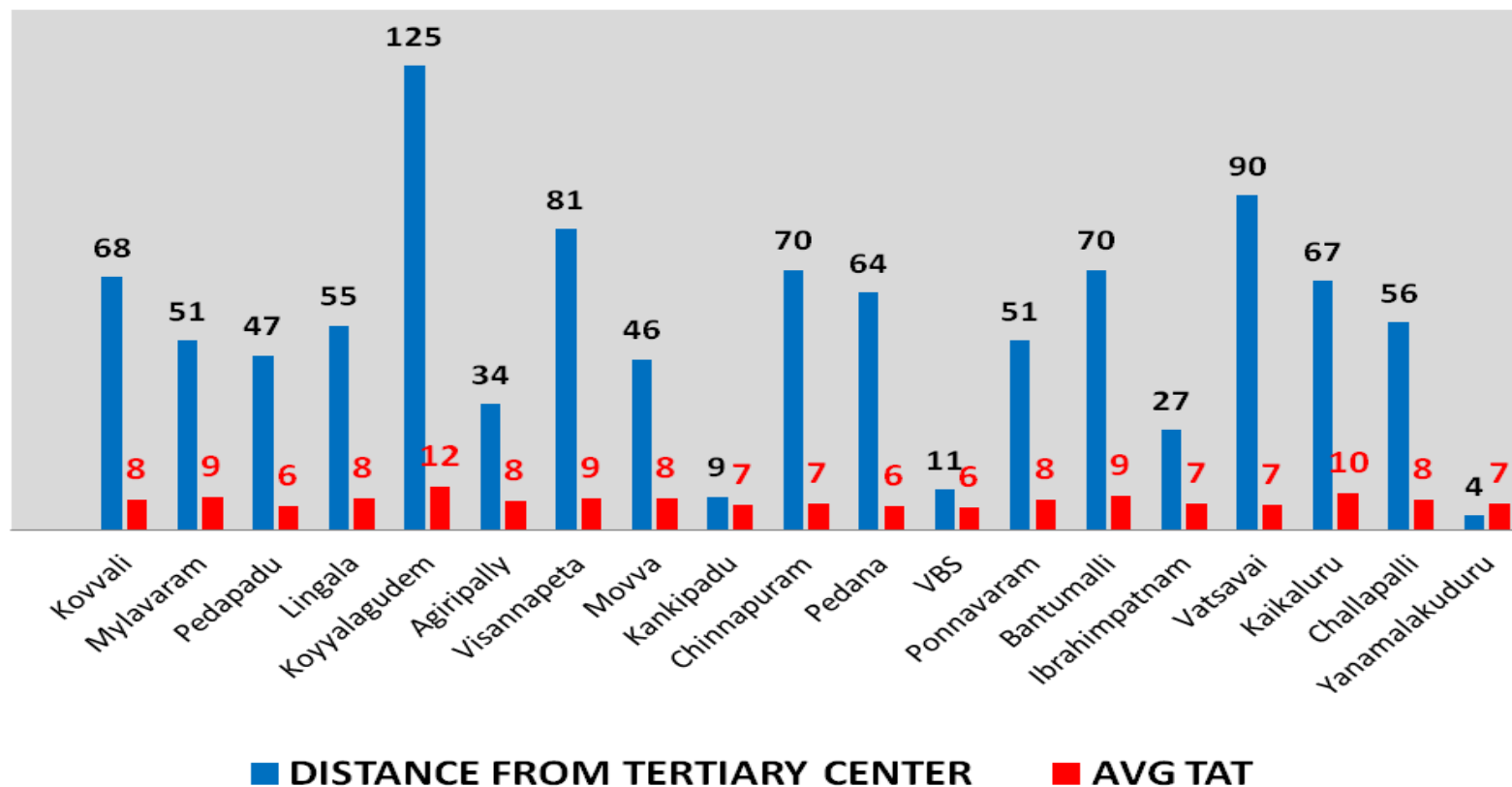
Center wise TAT

CENTER WISE - TAT (IN DAYS)



Distance from tertiary center and TAT

Distance(km) from tertiary center vs TAT(in days):



TAT – Groups

TAT	Frequency	percentage
0days	180	12
1-5days	342	23
6-10 days	781	52
11-15 days	163	11
>15days	36	2



Limitation of the study : As the study was conducted in vision centers , optical department was not included which would have provided the reasons for late delivery of spectacles from tertiary center to vision center .

Conclusion

- The turnaround time of optical delivery in rural vision center plays a crucial role in patient satisfaction with the services of the vision center. Timely delivery of spectacles to the patient helps in improving the performance of the vision center .As the vision centers are located in different directions and at different distances from the tertiary center the optical turnaround time helps to focus vision center wise and improve the turnaround time. This study helps to identify the time taken for receiving the optical ordered at vision center and helps the administrators to understand the situation and plan accordingly to improve the services of vision centers.

- **Suggestions:**

- The optical department should be made aware regarding this issue and explain them about the turnaround time of each vision center and its impact on patients and functioning of vision center and work together to solve this .
- Based on the finding, more focus should be made on vision centers having higher turnaround time.
- Regarding the type of order, reasons for fewer sales of sunglasses, only frames and reading glasses in vision centers should be known and the stock should be mobilized if required.
- The schedules of delivery boy and performance should be assessed with supporting data.
- Utilize the data in optical registers present at secondary centers at what date they are receiving the telephonic orders and physical orders and see if there is any significant gap.

References :

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