

A brief report on Mapping of visually impaired +40 population of Aspur, Dungarppur, Rajasthan-conducted by NIRA with support of Alakhnayan Mandir

National Programme for Control of Blindness and Visual Impairment (NPCB&VI) was launched in the year 1976 as a 100% centrally sponsored scheme (now 60:40 in all states and 90:10 in NE States) with the goal of reducing the prevalence of blindness to 0.3% by 2020. The current projected rate of prevalence of blindness is 0.45%. Prevalence of Blindness target - 0.3%. Cataract (62.6%) Refractive Error (19.70%) Corneal Blindness (0.90%), Glaucoma (5.80%), Surgical Complication (1.20%) Posterior Capsular Opacification (0.90%) Posterior Segment Disorder (4.70%), Others (4.19%) Estimated National Prevalence of Childhood Blindness /Low Vision is 0.80 per thousand are some of the main causes of blindness.

As per the recent study of blindness and visual impairment by AIIMS the prevalence of blindness in 50+ population is 2.69% and prevalence of visual impairment is 12.22% in population aged 50+ in



Rajasthan. Cataract and Uncorrected refractive error are the leading causes of visual impairment and blindness in Rajasthan. Government of India in May 2022 has planned “Motiyabind Mukh Bharat” campaign which aims at reduction in prevalence of blindness and clear the backlog for which door to door mapping is being planned. A thorough mapping will facilitate identification of all people having

any kind of visual impairment who need the services of the eye health especially in the age group of 40+. These identified people will be referred to nearest eye hospital/camps or vision centres for further diagnosis and treatment.

OBJECTIVES OF THIS MAPPING

NIRA Rajasthan in coordination with Alakh Nayan Mandir – Udaipur to undertake mapping of people with visual impaired in Aspur block of Dungarpur district. Door to door screening of people using E chart and 6m tape was conducted in a strategic approach of involving PRI, School Teachers and Community organizations.

Training of Investigators

A training and handholding support was ensured for the field level investigators. Selection of investigators was done from local young interns of nursing schools /volunteers on eye screening, identification of cataract and refractive error.

The field level volunteer supervised and monitored through online tools and provide required inputs as and when required. A list of beneficiaries was prepared incorporating the 40+ population of the 97 villages.

After obtaining the training from Alakhnayan Team screened all selected villages covering each household and perform screening,



note down the visual acuity of right and left eye, enquire from the person screened for any kind of eye problem faced and update the details in the database. This database after collection was reviewed and all those people who have any kind of visual impairment were further filtered out and the ophthalmic team undertake follow-up with those who reported having visual impairment. This database has given an idea of the status of visual impairment and after ensuring further diagnosis and treatment of all identified.

- To identify and map people having any kind of visual impairment in each village for enabling effective planning and implementing of the activities focusing on those identified.
- Facilitate in undertaking interventions to clear all the backlog of visual impairment and saturate the identified blocks.



STEPS FOR THE MAPPING.

- Training of team on identification of the people with visual impairment.
- Engagement of team to undertake the basic screening of the population in each village using an e chart, 6 m tape.
- Target group was all people in villages for visually impaired and with special focus on 40+ for cataract identification
- Identify the people with visual impairment with special focus on cataract.
- Data of persons was included the components of -Name, Age, Gender, Contact, Village, Visual Acuity of Left and Right Eye, Type of Eye Problem, Remarks (refer enclosed Blind Register template.)

Development of a software and questioned in ODK form –To ensure the accuracy in data collection a CAPI based information toll was developed. Data collection questioner was formulated and converted in ODK format. Dash board was also created to see the survey progress daily basis data was captured from each village.

Role of NIRA in MAPPING

NIRA had developed the methodology and tools and shared with Alakhnayan Sansthan for collecting primary data through Screening of 40+ population

- Design digital form of questionnaire for digital
- Create server for online data collection
- Identifying and finalize the research team including surveyors and supervisor
- Training to the field investigators and supervisors on collecting data using smart phone and submitting the collected data on the server
- Facilitating data collection from specified area of Aspurn of Dungarpur districts



- The field data was submitted in excel files along with all output tables, with analysis
- Draft report shared covering all indicators and sector wise analysis.

Sample for the Mapping

- Aspur Block of Dungarpur District
- Number of Village -97
- Respondents covered 40+ population of all 171 villages

Sampling process

After finalizing the required number of samplings units, the research team will visit each of the village interact with community and key stakeholders. Collect information from BLO about Voter List identify the total number of 50+ population of the village. Identify the point of screening in the village. Number of screening points will be decided in consultation with village representatives- ASHA, ANM and PRIs. Each field investigator will identify a fixed central point in each village and follow a survey pathway; will walk south, east, north and west. This process will be continued until the recommended number is not obtained.



Data Collection

All interviews were conducted on a one-on-one basis through door-to-door visits in the community. Then screening was done at common place. Written informed consent was taken from the identified respondents. Supervisors were involved to check the quality of data.



Key Deliverables

The key deliverables would include the following:

1. Data collection
2. Development of ODK/googleform programme for data collection and data entry of completed schedules.
3. Raw data files in Excel and SPSS formats.
4. Draft report (with interim findings, instruments of data collection used etc)
5. Tabulated comparison of various variables
6. Development of final report in hard and soft copy in printable format

Key findings-

Profile of respondents								
Male	Female	Total	ST	SC	OBC	General	Illiterate	Literate
3396	3154	6550	3618	736	1051	1145	3984	2566

Out of total 6550 screened respondents 2282 were economically empowered to bear the cost of treatment of eye problem including operation but rest 4268 were from BPL group.

Out of total respondents 2756 were using spectacle for daily work like sewing or reading but rest 3794 were not using any device but simultaneously about 5026 screened respondents were facing problem during evening or morning time to recognize the people. Only 2481 respondents consulted doctor for vision issue rest were silent.

Respondents raise the vision problem to data collector			
Right Eye	Left Eye	Both Eye	No problem
984	888	732	1726

Type of Problem		
Type of Vision Problem	Problem identified in Right Eye	Problem identified in left Eye
General	4135	2186
visual impairment	2362	939
Blindness	53	8

Type of problem Identified	
Category of vision problem	Number of persons identified with vision impairment
pterygium	47
refractive error	5680
Glaucoma	148
Cataract Bind	626
coronal opacity	23
DCR	26

Key functionaries involved

Deepak Bhatnagar, Ganesh Labana, Kapil Trivedi, Jayesh Mehta, Sujal Trivedy, Indra Pal Singh Rao, Arpit Trivedi, Manoj Kumar Darji, and Yogesh Meena Dr. Vishal Singh, Vinod Rathore, and Deepak Bhatanagar

