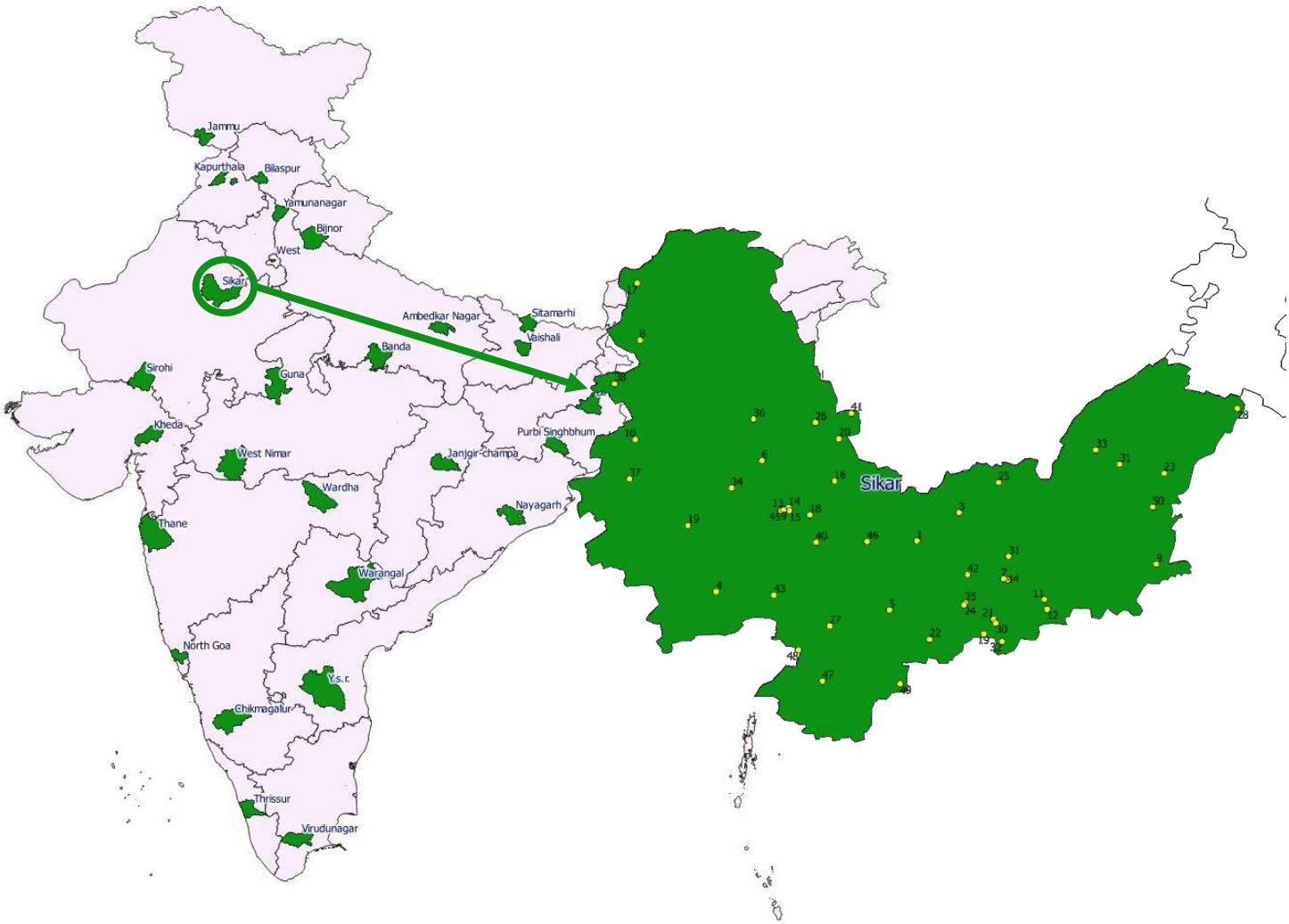
NPCB National Blindness Survey: 2015-2018

DISTRICT SUMMARY REPORT

Sikar, Rajasthan



Community Ophthalmology

Dr. Rajendra Prasad Centre for Ophthalmic Sciences

AIIMS, New Delhi - 110029

NPCB National Blindness Survey: 2015-2018

DISTRICT SUMMARY REPORT

Sikar, Rajasthan

April 2017

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RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SUMMARY REPORT

Date and time of report: 13-Jan-16 1:52:23PM

This report is for the survey area: SIKAR

Year and month when survey was conducted: 2015-12 until 2015-12

This report shows the most important results from all the other reports. The 95% confidence interval (95% CI) is based on the sampling error in cluster sampling. More detailed information is provided in the other reports.

1. Eligible persons, coverage, absentees and refusals

	Examined		Not available		Refused		Not capable		Total	
	n	%	n	%	n	%	n	%	n	%
Males	1,291	93.3%	89	6.4%	2	0.1%	2	0.1%	**1,384**	**100.0%**
Females	1,546	95.7%	55	3.4%	8	0.5%	7	0.4%	**1,616**	**100.0%**
Total	**2,837**	94.6%	**144**	4.8%	**10**	0.3%	**9**	0.3%	**3,000**	**100.0%**

2. Age and gender distribution of people examined in the sample

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	546	42.3%	750	48.5%	**1,296**	**45.7%**
60 - 69 years	440	34.1%	451	29.2%	**891**	**31.4%**
70 - 79 years	229	17.7%	242	15.7%	**471**	**16.6%**
80+ years	76	5.9%	103	6.7%	**179**	**6.3%**
Total	**1,291**	**100.0%**	**1,546**	**100.0%**	**2,837**	**100.0%**

3. Sample prevalence of blindness, severe (SVI), moderate (MVI) and early (EVI) visual impairment - bilateral PVA

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Blindness	29	2.3 (1.4 - 3.1)	48	3.1 (2.2 - 4.0)	77	2.7 (2.1 - 3.4)
Severe VI	14	1.1 (0.6 - 1.6)	26	1.7 (1.1 - 2.3)	40	1.4 (1.0 - 1.8)
Moderate VI	101	7.8 (6.1 - 9.5)	129	8.3 (6.5 - 10.1)	230	8.1 (6.8 - 9.5)
Early VI	126	9.8 (8.2 - 11.3)	148	9.6 (8.0 - 11.2)	274	9.7 (8.5 - 10.9)
Functional Low Vision	15	1.2 (0.6 - 1.7)	23	1.5 (0.8 - 2.1)	38	1.3 (0.9 - 1.8)

4. Extrapolated magnitude of blindness, severe (SVI), moderate (MVI) and early (EVI) visual impairment - bilateral PVA

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Blindness	3,713	2.0 (1.2 - 2.9)	6,984	3.5 (2.6 - 4.5)	10,699	2.8 (2.2 - 3.4)
Severe VI	1,847	1.0 (0.5 - 1.5)	3,750	1.9 (1.3 - 2.5)	5,594	1.5 (1.0 - 1.9)
Moderate VI	13,175	7.2 (5.5 - 8.9)	18,155	9.1 (7.3 - 10.9)	31,330	8.2 (6.9 - 9.6)
Early VI	16,428	9.0 (7.5 - 10.5)	19,993	10.0 (8.5 - 11.6)	36,417	9.6 (8.3 - 10.8)
Functional Low Vision	1,961	1.1 (0.5 - 1.6)	3,355	1.7 (1.0 - 2.3)	5,311	1.4 (0.9 - 1.8)

5. Blindness prevalence (PVA<3/60 in better eye) by age group

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
50 - 59 years	3	0.6 (0.0 - 1.2)	1	0.1 (0.0 - 0.4)	4	0.3 (0.0 - 0.6)
60 - 69 years	6	1.4 (0.2 - 2.5)	13	2.9 (1.1 - 4.7)	19	2.1 (1.0 - 3.2)
70 - 79 years	8	3.5 (1.3 - 5.7)	12	5.0 (2.4 - 7.5)	20	4.3 (2.4 - 6.0)
80+ years	12	15.8 (6.3 - 25.3)	22	21.4 (13.0 - 29.7)	34	19.0 (12.9 - 25.1)
All 50+ years	29	2.3 (1.4 - 3.1)	48	3.1 (2.2 - 4.0)	77	2.7 (2.1 - 3.4)

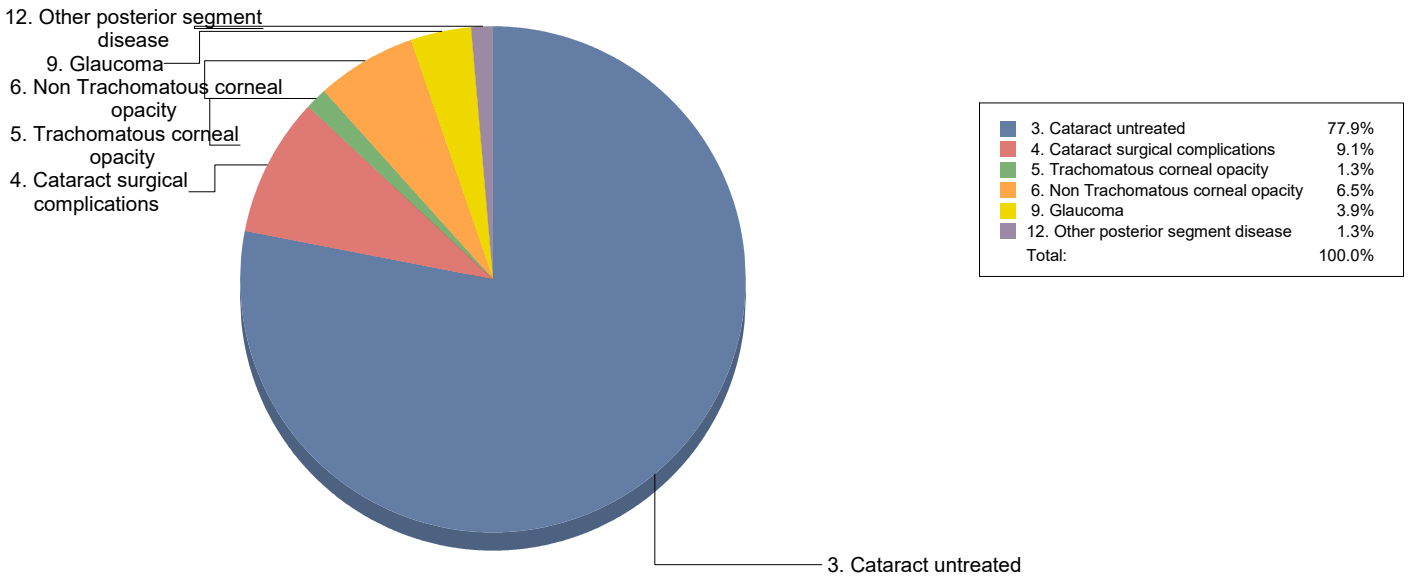
6. Principal cause of blindness, severe (SVI), moderate (MVI) and early (EVI) visual impairment in persons (PVA)

	Blindness		Severe VI		Moderate VI		Early VI	
	n	%	n	%	n	%	n	%
1. Refractive error	0	0.0%	1	2.5%	79	34.3%	176	64.2%
2. Aphakia uncorrected	0	0.0%	1	2.5%	1	0.4%	2	0.7%
3. Cataract untreated	60	77.9%	25	62.5%	117	50.9%	79	28.8%
4. Cataract surgical complications	7	9.1%	5	12.5%	19	8.3%	10	3.6%
5. Trachomatous corneal opacity	1	1.3%	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	5	6.5%	3	7.5%	3	1.3%	2	0.7%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	3	3.9%	1	2.5%	4	1.7%	2	0.7%
10. Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%	2	0.7%
11. ARMD	0	0.0%	1	2.5%	1	0.4%	0	0.0%
12. Other posterior segment disease	1	1.3%	3	7.5%	6	2.6%	1	0.4%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	**77**	**100.0%**	**40**	**100.0%**	**230**	**100.0%**	**274**	**100.0%**

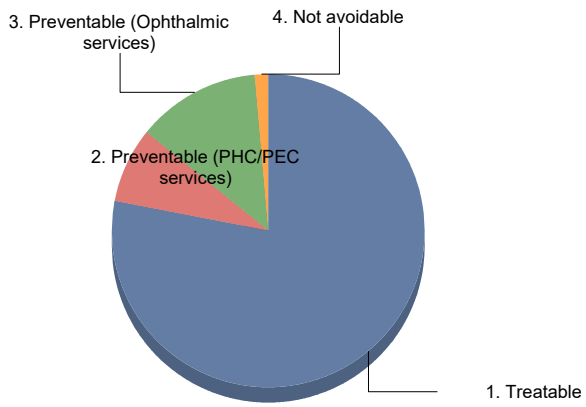
Blindness, SVI, MVI and EVI in persons by intervention category

A. Treatable (1,2,3)	60	77.9%	27	67.5%	197	85.7%	257	93.8%
B. Preventable (PHC/PEC services) (5,6,7,8)	6	7.8%	3	7.5%	3	1.3%	2	0.7%
C. Preventable (Ophthalmic services) (4,9,10)	10	13.0%	6	15.0%	23	10.0%	14	5.1%
D. Avoidable (A+B+C)	76	98.7%	36	90.0%	223	97.0%	273	99.6%
E. Posterior segment causes (8,9,10,11,12)	4	5.2%	5	12.5%	11	4.8%	5	1.8%

7. Graph: main cause of blindness in persons

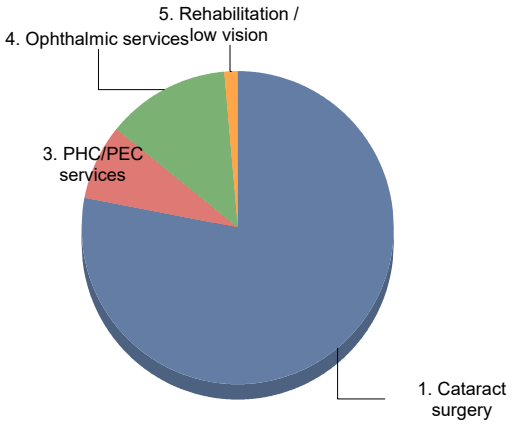


8. Graph: main category of blindness in persons



1. Treatable	77.9%
2. Preventable (PHC/PEC services)	7.8%
3. Preventable (Ophthalmic services)	13.0%
4. Not avoidable	1.3%
Total:	100.0%

9. Graph: action required to reduce blindness



1. Cataract surgery	77.9%
3. PHC/PEC services	7.8%
4. Ophthalmic services	13.0%
5. Rehabilitation / low vision	1.3%
Total:	100.0%

10. Cataract surgical coverage (persons) - percentage

	Males	Females	Total
VA < 3/60	91.5	87.0	89.0
VA < 6/60	88.2	83.2	85.4
VA < 6/18	79.2	72.3	75.2

11. Barriers to cataract surgery - bilateral VA<6/60 due to cataract

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	5	23.8%	8	22.2%	**13**	**22.8%**
Fear	3	14.3%	4	11.1%	**7**	**12.3%**
Cost	5	23.8%	3	8.3%	**8**	**14.0%**
Treatment denied by provider	5	23.8%	6	16.7%	**11**	**19.3%**
Unaware treatment is possible	0	0.0%	2	5.6%	**2**	**3.5%**
Cannot access treatment	2	9.5%	4	11.1%	**6**	**10.5%**
Local reason	1	4.8%	9	25.0%	**10**	**17.5%**
Total	**21**	**100.0%**	**36**	**100.0%**	**57**	**100.0%**

12. Outcome after cataract surgery with available correction (eyes)

	Males		Females		Total	
	n	%	n	%	n	%
Very good: can see 6/12	186	58.7%	206	56.1%	392	57.3%
Good: can see 6/18	41	12.9%	40	10.9%	81	11.8%
Borderline: can see 6/60	49	15.5%	65	17.7%	114	16.7%
Poor: cannot see 6/60	41	12.9%	56	15.3%	97	14.2%
Total	**317**	**100.0%**	**367**	**100.0%**	**684**	**100.0%**

13. Outcome by type of cataract surgery with available correction (eyes)

	Non-IOL		IOL		Total	
	n	%	n	%	n	%
Very good: can see 6/12	9	18.0%	383	60.4%	**392**	**57.3%**
Good: can see 6/18	7	14.0%	74	11.7%	**81**	**11.8%**
Borderline: can see 6/60	11	22.0%	103	16.2%	**114**	**16.7%**
Poor: cannot see 6/60	23	46.0%	74	11.7%	**97**	**14.2%**
Total	**50**	**100.0%**	**634**	**100.0%**	**684**	**100.0%**

14. Cause of PVA<6/12 (good, borderline and poor outcome) after cataract surgery

	Selection		Surgery		Spectacles		Sequelae		Can see 6/12	
	n	%	n	%	n	%	n	%	n	%
Very good: can see 6/12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	392	100.0%
Good: can see 6/18	2	3.7%	37	25.3%	42	47.2%	0	0.0%	0	0.0%
Borderline: can see 6/60	11	20.4%	60	41.1%	41	46.1%	2	66.7%	0	0.0%
Poor: cannot see 6/60	41	75.9%	49	33.6%	6	6.7%	1	33.3%	0	0.0%
Total	**54**	**100.0%**	**146**	**100.0%**	**89**	**100.0%**	**3**	**100.0%**	**392**	**100.0%**

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report: 13-Jan-16 1:55:19PM

This report is for the survey area: SIKAR

Year and month when survey was conducted: 2015-12 until 2015-12

The sample size of the RAAB is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral blindness (best corrected VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data.

1. Eligible persons, coverage, absentees and refusals in survey

	Examined		Not available		Refused		Not capable		Total	
	n	%	n	%	n	%	n	%	n	%
Males	1,291	93.3%	89	6.4%	2	0.1%	2	0.1%	**1,384**	**100.0%**
Females	1,546	95.7%	55	3.4%	8	0.5%	7	0.4%	**1,616**	**100.0%**
Total	**2,837**	**94.6%**	**144**	**4.8%**	**10**	**0.3%**	**9**	**0.3%**	**3,000**	**100.0%**

2. Prevalence of blindness, severe (SVI), moderate (MVI) and early visual impairment (EVI) - all causes

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with best correction or pinhole						
All bilateral blindness	28	2.2% (1.3-3.0)	43	2.8% (1.8-3.7)	**71**	**2.5% (1.9-3.1)**
All blind eyes	199	7.7% (6.5-8.9)	258	8.3% (7.0-9.7)	**457**	**8.1% (7.1-9.0)**
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	29	2.3% (1.4-3.1)	48	3.1% (2.2-4.0)	**77**	**2.7% (2.1-3.4)**
All blind eyes	221	8.6% (7.3-9.9)	288	9.3% (8.0-10.6)	**509**	**9.0% (8.0-10.0)**
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral Severe VI	14	1.1% (0.6-1.6)	26	1.7% (1.1-2.3)	**40**	**1.4% (1.0-1.8)**
All Severe VI eyes	62	2.4% (1.7-3.1)	81	2.6% (2.0-3.2)	**143**	**2.5% (2.0-3.0)**
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral MVI	101	7.8% (6.1-9.5)	129	8.3% (6.5-10.1)	**230**	**8.1% (6.8-9.5)**
All Moderate VI eyes	263	10.2% (8.6-11.8)	299	9.7% (8.3-11.1)	**562**	**9.9% (8.7-11.1)**
Early visual impairment (EVI) - VA<6/12 - 6/18 in the better eye with available correction						
All bilateral EVI	126	9.8% (8.2-11.3)	148	9.6% (8.0-11.2)	**274**	**9.7% (8.5-10.9)**
All Early VI eyes	269	10.4% (9.1-11.8)	344	11.1% (9.8-12.5)	**613**	**10.8% (9.8-11.8)**

3. Prevalence of presenting VA<3/60, VA<6/60, VA<6/18 and VA<6/12 - all causes (cumulative categories)

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	29	2.3% (1.4-3.1)	48	3.1% (2.2-4.0)	**77**	**2.7% (2.1-3.4)**
All blind eyes	221	8.6% (7.3-9.9)	288	9.3% (8.0-10.6)	**509**	**9.0% (8.0-10.0)**
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	43	3.3% (2.3-4.3)	74	4.8% (3.6-6.0)	**117**	**4.1% (3.3-4.9)**
All eyes	283	11.0% (9.6-12.3)	369	11.9% (10.4-13.4)	**652**	**11.5% (10.4-12.6)**
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	144	11.2% (9.3-13.0)	203	13.1% (10.8-15.5)	**347**	**12.2% (10.6-13.8)**
All eyes	546	21.2% (19.3-23.0)	668	21.6% (19.3-23.9)	**1,214**	**21.4% (19.7-23.1)**
VA<6/12 in the better eye, with available correction (presenting VA)						
All bilateral cases	270	20.9% (18.6-23.3)	351	22.7% (20.1-25.3)	**621**	**21.9% (20.0-23.8)**
All eyes	815	31.6% (29.2-33.9)	1,012	32.7% (30.0-35.4)	**1,827**	**32.2% (30.1-34.3)**

4. Principal cause of blindness in persons: VA<3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	0	0.0%	0	0.0%	**0**	**0.0%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	20	69.0%	40	83.3%	**60**	**77.9%**
4. Cataract surgical complications	2	6.9%	5	10.4%	**7**	**9.1%**
5. Trachomatous corneal opacity	1	3.4%	0	0.0%	**1**	**1.3%**
6. Non Trachomatous corneal opacity	4	13.8%	1	2.1%	**5**	**6.5%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	1	3.4%	2	4.2%	**3**	**3.9%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	0	0.0%	**0**	**0.0%**
12. Other posterior segment disease	1	3.4%	0	0.0%	**1**	**1.3%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**29**	**100.0%**	**48**	**100.0%**	**77**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	20	69.0%	40	83.3%	60	77.9%
B. Preventable (PHC/PEC services) (5,6,7,8)	5	17.2%	1	2.1%	6	7.8%
C. Preventable (Ophthalmic services) (4,9,10)	3	10.3%	7	14.6%	10	13.0%
D. Avoidable (A+B+C)	28	96.6%	48	100.0%	76	98.7%
E. Posterior segment causes (8,9,10,11,12)	2	6.9%	2	4.2%	4	5.2%

5. Main cause of blindness in eyes - VA<3/60 with available correction, no pinhole

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	2	0.9%	3	1.0%	**5**	**1.0%**
2. Aphakia uncorrected	1	0.5%	2	0.7%	**3**	**0.6%**
3. Cataract untreated	124	56.1%	196	68.1%	**320**	**62.9%**
4. Cataract surgical complications	15	6.8%	18	6.3%	**33**	**6.5%**
5. Trachomatous corneal opacity	3	1.4%	1	0.3%	**4**	**0.8%**
6. Non Trachomatous corneal opacity	28	12.7%	28	9.7%	**56**	**11.0%**
7. Phthisis	15	6.8%	12	4.2%	**27**	**5.3%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	11	5.0%	13	4.5%	**24**	**4.7%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	1	0.5%	2	0.7%	**3**	**0.6%**
12. Other posterior segment disease	13	5.9%	9	3.1%	**22**	**4.3%**
13. All other globe/CNS abnormalities	8	3.6%	4	1.4%	**12**	**2.4%**
Total	**221**	**100.0%**	**288**	**100.0%**	**509**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	127	57.5%	201	69.8%	328	64.4%
B. Preventable (PHC/PEC services) (5,6,7,8)	46	20.8%	41	14.2%	87	17.1%
C. Preventable (Ophthalmic services) (4,9,10)	26	11.8%	31	10.8%	57	11.2%
D. Avoidable (A+B+C)	199	90.0%	273	94.8%	472	92.7%
E. Posterior segment causes (8,9,10,11,12)	25	11.3%	24	8.3%	49	9.6%

6. Principal cause severe visual impairment in persons: VA<6/60 - 3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	0	0.0%	1	3.8%	**1**	**2.5%**
2. Aphakia uncorrected	0	0.0%	1	3.8%	**1**	**2.5%**
3. Cataract untreated	11	78.6%	14	53.8%	**25**	**62.5%**
4. Cataract surgical complications	2	14.3%	3	11.5%	**5**	**12.5%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	0	0.0%	3	11.5%	**3**	**7.5%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	1	3.8%	**1**	**2.5%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	1	3.8%	**1**	**2.5%**
12. Other posterior segment disease	1	7.1%	2	7.7%	**3**	**7.5%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**14**	**100.0%**	**26**	**100.0%**	**40**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	11	78.6%	16	61.5%	27	67.5%
B. Preventable (PHC/PEC services) (5,6,7,8)	0	0.0%	3	11.5%	3	7.5%
C. Preventable (Ophthalmic services) (4,9,10)	2	14.3%	4	15.4%	6	15.0%
D. Avoidable (A+B+C)	13	92.9%	23	88.5%	36	90.0%
E. Posterior segment causes (8,9,10,11,12)	1	7.1%	4	15.4%	5	12.5%

7. Main cause of severe visual impairment in eyes - VA<6/60 - 3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	6	9.7%	9	11.1%	**15**	**10.5%**
2. Aphakia uncorrected	0	0.0%	1	1.2%	**1**	**0.7%**
3. Cataract untreated	36	58.1%	45	55.6%	**81**	**56.6%**
4. Cataract surgical complications	6	9.7%	10	12.3%	**16**	**11.2%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	3	4.8%	4	4.9%	**7**	**4.9%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	2	3.2%	2	2.5%	**4**	**2.8%**
10. Diabetic retinopathy	0	0.0%	1	1.2%	**1**	**0.7%**
11. ARMD	0	0.0%	1	1.2%	**1**	**0.7%**
12. Other posterior segment disease	8	12.9%	8	9.9%	**16**	**11.2%**
13. All other globe/CNS abnormalities	1	1.6%	0	0.0%	**1**	**0.7%**
Total	**62**	**100.0%**	**81**	**100.0%**	**143**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	42	67.7%	55	67.9%	97	67.8%
B. Preventable (PHC/PEC services) (5,6,7,8)	3	4.8%	4	4.9%	7	4.9%
C. Preventable (Ophthalmic services) (4,9,10)	8	12.9%	13	16.0%	21	14.7%
D. Avoidable (A+B+C)	53	85.5%	72	88.9%	125	87.4%
E. Posterior segment causes (8,9,10,11,12)	10	16.1%	12	14.8%	22	15.4%

8. Principal cause moderate visual impairment in persons: VA<6/18 - 6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	36	35.6%	43	33.3%	**79**	**34.3%**
2. Aphakia uncorrected	0	0.0%	1	0.8%	**1**	**0.4%**
3. Cataract untreated	50	49.5%	67	51.9%	**117**	**50.9%**
4. Cataract surgical complications	8	7.9%	11	8.5%	**19**	**8.3%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	2	2.0%	1	0.8%	**3**	**1.3%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	2	2.0%	2	1.6%	**4**	**1.7%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	1	0.8%	**1**	**0.4%**
12. Other posterior segment disease	3	3.0%	3	2.3%	**6**	**2.6%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**101**	**100.0%**	**129**	**100.0%**	**230**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	86	85.2%	111	86.1%	197	85.7%
B. Preventable (PHC/PEC services) (5,6,7,8)	2	2.0%	1	0.8%	3	1.3%
C. Preventable (Ophthalmic services) (4,9,10)	10	9.9%	13	10.1%	23	10.0%
D. Avoidable (A+B+C)	98	97.0%	125	96.9%	223	97.0%
E. Posterior segment causes (8,9,10,11,12)	5	5.0%	6	4.7%	11	4.8%

9. Main cause of moderate visual impairment in eyes - VA<6/18 - 6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	82	31.2%	98	32.8%	**180**	**32.0%**
2. Aphakia uncorrected	0	0.0%	1	0.3%	**1**	**0.2%**
3. Cataract untreated	125	47.5%	150	50.2%	**275**	**48.9%**
4. Cataract surgical complications	30	11.4%	30	10.0%	**60**	**10.7%**
5. Trachomatous corneal opacity	0	0.0%	1	0.3%	**1**	**0.2%**
6. Non Trachomatous corneal opacity	8	3.0%	3	1.0%	**11**	**2.0%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	4	1.5%	4	1.3%	**8**	**1.4%**
10. Diabetic retinopathy	1	0.4%	0	0.0%	**1**	**0.2%**
11. ARMD	0	0.0%	3	1.0%	**3**	**0.5%**
12. Other posterior segment disease	13	4.9%	8	2.7%	**21**	**3.7%**
13. All other globe/CNS abnormalities	0	0.0%	1	0.3%	**1**	**0.2%**
Total	**263**	**100.0%**	**299**	**100.0%**	**562**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	207	78.7%	249	83.3%	456	81.1%
B. Preventable (PHC/PEC services) (5,6,7,8)	8	3.0%	4	1.3%	12	2.1%
C. Preventable (Ophthalmic services) (4,9,10)	35	13.3%	34	11.4%	69	12.3%
D. Avoidable (A+B+C)	250	95.1%	287	96.0%	537	95.6%
E. Posterior segment causes (8,9,10,11,12)	18	6.8%	15	5.0%	33	5.9%

10. Principal cause early visual impairment in persons: VA<6/12 - 6/18 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	85	67.5%	91	61.5%	**176**	**64.2%**
2. Aphakia uncorrected	1	0.8%	1	0.7%	**2**	**0.7%**
3. Cataract untreated	31	24.6%	48	32.4%	**79**	**28.8%**
4. Cataract surgical complications	6	4.8%	4	2.7%	**10**	**3.6%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	1	0.8%	1	0.7%	**2**	**0.7%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	1	0.8%	1	0.7%	**2**	**0.7%**
10. Diabetic retinopathy	1	0.8%	1	0.7%	**2**	**0.7%**
11. ARMD	0	0.0%	0	0.0%	**0**	**0.0%**
12. Other posterior segment disease	0	0.0%	1	0.7%	**1**	**0.4%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**126**	**100.0%**	**148**	**100.0%**	**274**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	117	92.9%	140	94.6%	257	93.8%
B. Preventable (PHC/PEC services) (5,6,7,8)	1	0.8%	1	0.7%	2	0.7%
C. Preventable (Ophthalmic services) (4,9,10)	8	6.4%	6	4.1%	14	5.1%
D. Avoidable (A+B+C)	126	100.0%	147	99.3%	273	99.6%
E. Posterior segment causes (8,9,10,11,12)	2	1.6%	3	2.0%	5	1.8%

11. Main cause of early visual impairment in eyes - VA<6/12 - 6/18 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	184	68.4%	235	68.3%	**419**	**68.4%**
2. Aphakia uncorrected	1	0.4%	0	0.0%	**1**	**0.2%**
3. Cataract untreated	62	23.0%	83	24.1%	**145**	**23.7%**
4. Cataract surgical complications	17	6.3%	20	5.8%	**37**	**6.0%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	1	0.4%	1	0.3%	**2**	**0.3%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	1	0.4%	2	0.6%	**3**	**0.5%**
10. Diabetic retinopathy	1	0.4%	2	0.6%	**3**	**0.5%**
11. ARMD	0	0.0%	0	0.0%	**0**	**0.0%**
12. Other posterior segment disease	1	0.4%	1	0.3%	**2**	**0.3%**
13. All other globe/CNS abnormalities	1	0.4%	0	0.0%	**1**	**0.2%**
Total	**269**	**100.0%**	**344**	**100.0%**	**613**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	247	91.8%	318	92.4%	565	92.2%
B. Preventable (PHC/PEC services) (5,6,7,8)	1	0.4%	1	0.3%	2	0.3%
C. Preventable (Ophthalmic services) (4,9,10)	19	7.1%	24	7.0%	43	7.0%
D. Avoidable (A+B+C)	267	99.3%	343	99.7%	610	99.5%
E. Posterior segment causes (8,9,10,11,12)	3	1.1%	5	1.5%	8	1.3%

12. Prevalence of cataract with VA<3/60, VA<6/60, VA<6/18 and VA<6/12 - best corrected VA or pinhole

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Cataract and VA<3/60 with best correction or pinhole						
Bilateral cataract	12	0.9% (0.4-1.4)	24	1.6% (0.9-2.2)	**36**	**1.3% (0.8-1.7)**
Unilateral cataract	85	6.6% (5.1-8.0)	127	8.2% (6.7-9.8)	**212**	**7.5% (6.4-8.6)**
Cataract eyes	109	4.2% (3.3-5.1)	175	5.7% (4.7-6.7)	**284**	**5.0% (4.3-5.8)**
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	18	1.4% (0.8-2.0)	33	2.1% (1.4-2.8)	**51**	**1.8% (1.3-2.3)**
Unilateral cataract	95	7.4% (6.9-10.2)	131	8.5% (7.2-10.4)	**226**	**8.0% (7.5-10.0)**
Cataract eyes	131	5.1% (4.0-6.2)	197	6.4% (5.4-7.4)	**328**	**5.8% (5.0-6.6)**
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	40	3.1% (2.2-4.0)	73	4.7% (3.5-5.9)	**113**	**4.0% (3.2-4.7)**
Unilateral cataract	148	11.5% (9.5-13.4)	176	11.4% (9.7-13.1)	**324**	**11.4% (10.0-12.8)**
Cataract eyes	228	8.8% (7.4-10.2)	322	10.4% (9.1-11.8)	**550**	**9.7% (8.7-10.7)**
Cataract and VA<6/12 with best correction or pinhole						
Bilateral cataract	84	6.5% (5.2-7.8)	129	8.3% (6.8-9.9)	**213**	**7.5% (6.4-8.6)**
Unilateral cataract	182	14.1% (11.8-16.4)	217	14.0% (12.2-15.9)	**399**	**14.1% (12.6-15.5)**
Cataract eyes	350	13.6% (11.8-15.3)	475	15.4% (13.6-17.1)	**825**	**14.5% (13.1-15.9)**

13. Sample prevalence of (pseudo)aphakia

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Bilateral (pseudo)aphakia	90	7.0% (5.4-8.5)	91	5.9% (4.7-7.1)	**181**	**6.4% (5.4-7.4)**
Unilateral (pseudo)aphakia	137	10.6% (8.9-12.4)	185	12.0% (10.1-13.8)	**322**	**11.4% (10.0-12.7)**
(Pseudo)aphakic eyes	317	12.3% (10.5-14.1)	367	11.9% (10.3-13.4)	**684**	**12.1% (10.8-13.3)**

14. Cataract Surgical Coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	74.4	67.7	70.7
VA < 6/60	70.8	65.1	67.6
VA < 6/18	58.2	53.3	55.4
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	91.6	87.0	89.0
VA < 6/60	88.2	83.2	85.4
VA < 6/18	79.2	72.4	75.2

15. Number and percentage of first eyes and second eyes operated

	Males		Females		Total	
	n	%	n	%	n	%
First eyes	227	71.6	276	75.2	**503**	**73.5**
Second eyes	90	28.4	91	24.8	**181**	**26.5**

16. Uncorrected refractive error and uncorrected presbyopia

	Males		Females		Total	
	n	%	n	%	n	%
Total refractive errors	355	27.5	347	22.5	**702**	**24.7**
Uncorrected refractive errors	122	9.5	138	8.9	**260**	**9.2**
Uncorrected presbyopia	930	72.0	1,321	85.5	**2,251**	**79.3**

17. Persons with Functional Low Vision: BCVA<6/18 - PL+ in the better eye; incurable

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59	2	0.4	1	0.1	**3**	**0.2**
60 - 69	6	1.4	4	0.9	**10**	**1.1**
70 - 79	3	1.3	6	2.5	**9**	**1.9**
80+	4	5.3	12	11.7	**16**	**8.9**
Total	15	1.2	23	1.5	**38**	**1.3**

18. Principal cause of functional low vision in persons: BCVA<6/18 - PL+ in better eye, incurable

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	0	0.0%	0	0.0%	**0**	**0.0%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	0	0.0%	0	0.0%	**0**	**0.0%**
4. Cataract surgical complications	7	46.7%	9	39.1%	**16**	**42.1%**
5. Trachomatous corneal opacity	1	6.7%	0	0.0%	**1**	**2.6%**
6. Non Trachomatous corneal opacity	3	20.0%	3	13.0%	**6**	**15.8%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	1	6.7%	4	17.4%	**5**	**13.2%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	2	8.7%	**2**	**5.3%**
12. Other posterior segment disease	3	20.0%	5	21.7%	**8**	**21.1%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**15**	**100.0%**	**23**	**100.0%**	**38**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	0	0.0%	0	0.0%	0	0.0%
B. Preventable (PHC/PEC services) (5,6,7,8)	4	26.7%	3	13.0%	7	18.4%
C. Preventable (Ophthalmic services) (4,9,10)	8	53.3%	13	56.5%	21	55.3%
D. Avoidable (A+B+C)	12	80.0%	16	69.6%	28	73.7%
E. Posterior segment causes (8,9,10,11,12)	4	26.7%	11	47.8%	15	39.5%

19. Persons with FLV and proportion of all persons in corresponding category of visual impairment with available correction

	Males		Females		Total	
	n	%	n	%	n	%
BCVA<3/60 - PL+	7	24.1	6	12.5	**13**	**16.9**
BCVA<6/60 - 3/60	2	14.3	5	19.2	**7**	**17.5**
BCVA<6/18 - 6/60	6	5.9	12	9.3	**18**	**7.8**
Total	15	10.4	23	11.3	**38**	**11.0**

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

REASONS WHY PEOPLE, BLIND DUE TO CATARACT, HAVE NOT BEEN OPERATED

Date and time of report: 13-Jan-16 1:57:10PM

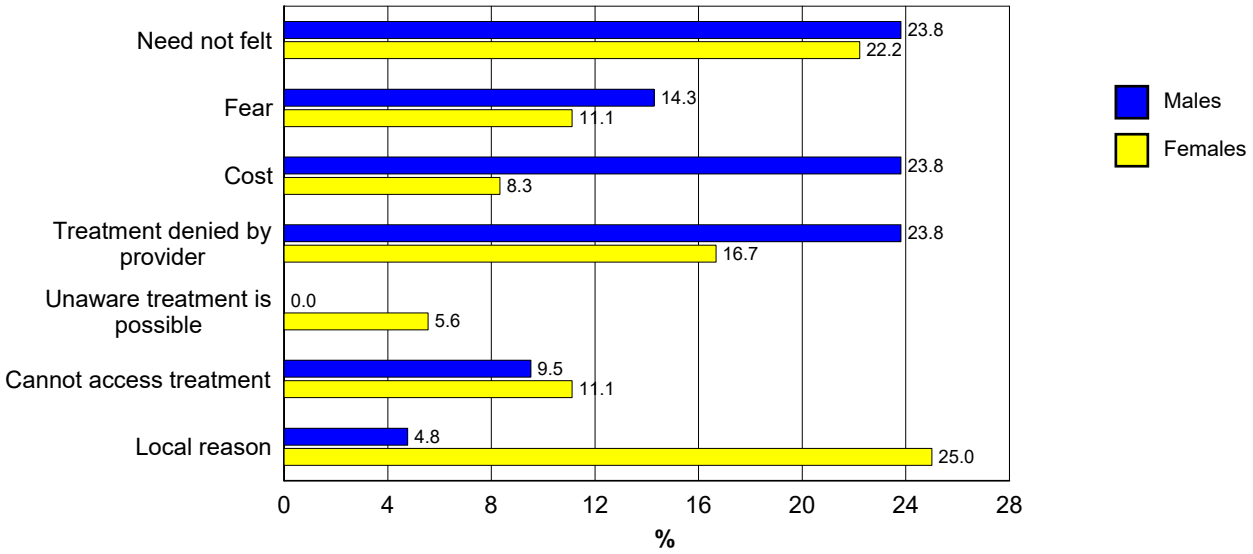
This report is for the survey area: SIKAR

Year and month when survey was conducted: 2015-12 until 2015-12

RAAB is designed as a rapid procedure and there is not enough time during the RAAB to hold in-dept interviews why people blind from cataract have not yet been operated. Hence, the data on barriers should be regarded as an indication whether more detailed qualitative studies are required.

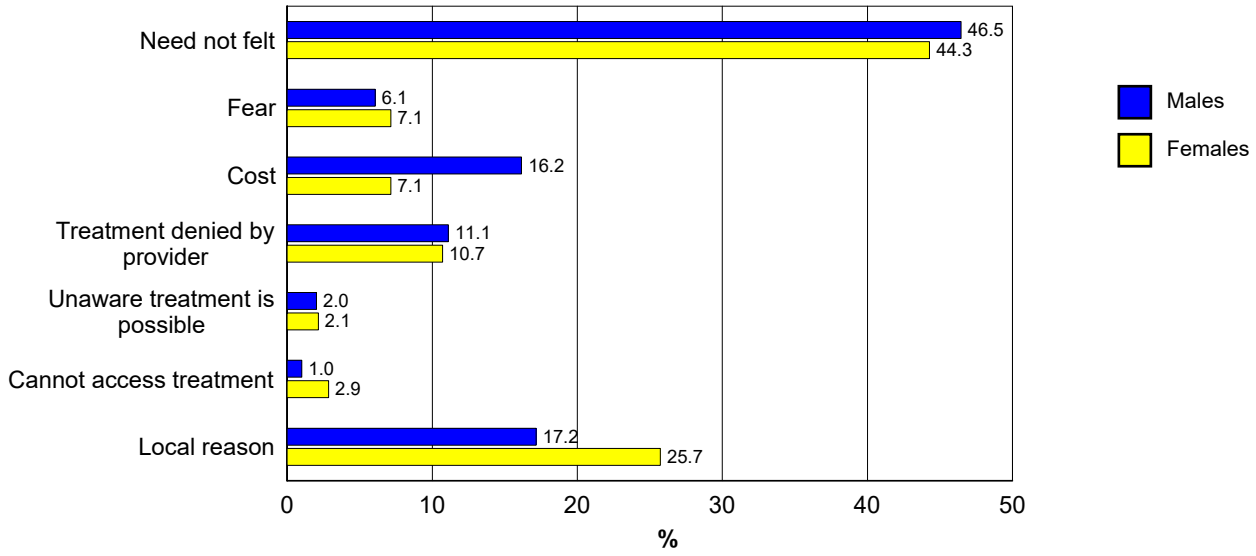
1. Barriers to cataract surgery in sample (bilateral BCVA<6/60 due to cataract)

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	5	23.8%	8	22.2%	13	22.8%
Fear	3	14.3%	4	11.1%	7	12.3%
Cost	5	23.8%	3	8.3%	8	14.0%
Treatment denied by provider	5	23.8%	6	16.7%	11	19.3%
Unaware treatment is possible	0	0.0%	2	5.6%	2	3.5%
Cannot access treatment	2	9.5%	4	11.1%	6	10.5%
Local reason	1	4.8%	9	25.0%	10	17.5%
Total	**21**	**100.0%**	**36**	**100.0%**	**57**	**100.0%**



2. Barriers to cataract surgery in sample (unilateral BCVA<6/60 due to cataract)

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	46	46.5%	62	44.3%	108	45.2%
Fear	6	6.1%	10	7.1%	16	6.7%
Cost	16	16.2%	10	7.1%	26	10.9%
Treatment denied by provider	11	11.1%	15	10.7%	26	10.9%
Unaware treatment is possible	2	2.0%	3	2.1%	5	2.1%
Cannot access treatment	1	1.0%	4	2.9%	5	2.1%
Local reason	17	17.2%	36	25.7%	53	22.2%
Total	**99**	**100.0%**	**140**	**100.0%**	**239**	**100.0%**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

VISUAL OUTCOME AFTER CATARACT SURGERY (LONG-TERM OUTCOME)

Date and time of report:	13-Jan-16	1:58:26PM
This report is for the survey area:	SIKAR	
Year and month when survey was conducted:	2015-12 until 2015-12	

The visual acuity of all subjects operated earlier is measured with available correction and with a pinhole. This report gives population based data on visual outcome, not specific for one surgeon or one hospital and with follow-up periods ranging from one month to several decades. When cataract surgery took place several years earlier, the chance of vision loss due to other causes than cataract increases. If the proportion of eyes with a visual outcome less than 6/60 is higher than 10%, research into the possible causes of poor visual outcome is indicated.

1. VA in operated eyes in sample with available correction (PVA)

	Non-IOL		IOL		Couching		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Very good: can see 6/12	9	18.0%	383	60.4%	0	0.0%	**392**	**57.3%**
Good: can see 6/18	7	14.0%	74	11.7%	0	0.0%	**81**	**11.8%**
Borderline: can see 6/60	11	22.0%	103	16.2%	0	0.0%	**114**	**16.7%**
Poor: cannot see 6/60	23	46.0%	74	11.7%	0	0.0%	**97**	**14.2%**
Total	**50**	**100.0%**	**634**	**100.0%**	**0**	**0.0%**	**684**	**100.0%**

2. VA in operated eyes in sample with best correction (BCVA)

	Non-IOL		IOL		Couching		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Very good: can see 6/12	13	26.0%	449	70.8%	0	0.0%	**462**	**67.5%**
Good: can see 6/18	10	20.0%	70	11.0%	0	0.0%	**80**	**11.7%**
Borderline: can see 6/60	9	18.0%	59	9.3%	0	0.0%	**68**	**9.9%**
Poor: cannot see 6/60	18	36.0%	56	8.8%	0	0.0%	**74**	**10.8%**
Total	**50**	**100.0%**	**634**	**100.0%**	**0**	**0.0%**	**684**	**100.0%**

3. VA in operated eyes in sample by years after surgery

	3 yrs postop		4 - 6 yrs postop.		7+ yrs postop		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Very good: can see 6/12	195	65.9%	101	58.4%	96	44.7%	**392**	**57.3%**
Good: can see 6/18	28	9.5%	23	13.3%	30	14.0%	**81**	**11.8%**
Borderline: can see 6/60	43	14.5%	25	14.5%	46	21.4%	**114**	**16.7%**
Poor: cannot see 6/60	30	10.1%	24	13.9%	43	20.0%	**97**	**14.2%**
Total	**296**	**100.0%**	**173**	**100.0%**	**215**	**100.0%**	**684**	**100.0%**

4. Age at time of surgery in males and females

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
1 - 29	1	0.3%	0	0.0%	**1**	**0.1%**
30 - 39	1	0.3%	0	0.0%	**1**	**0.1%**
40 - 49	18	5.7%	34	9.3%	**52**	**7.6%**
50 - 59	71	22.4%	89	24.3%	**160**	**23.4%**
60 - 69	125	39.4%	138	37.6%	**263**	**38.5%**
70 - 79	88	27.8%	82	22.3%	**170**	**24.9%**
80+	13	4.1%	24	6.5%	**37**	**5.4%**
Total	**317**	**100.0%**	**367**	**100.0%**	**684**	**100.0%**

5. Place of surgery by sex

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Government Hosp.	121	38.2	149	40.6	**270**	**39.5**
Voluntary/charitable hospital	18	5.7	22	6.0	**40**	**5.8**
Private hospital	138	43.5	143	39.0	**281**	**41.1**
Eyecamp	40	12.6	53	14.4	**93**	**13.6**
Total	**317**	**100.0**	**367**	**100.0**	**684**	**100.0**

6. Post-op VA with available correction by place of surgery

	Gov. Hosp.		Vol. Hosp.		Priv. Hosp.		Eye camp		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Very good: can see 6/12	138	51.1	22	55.0	195	69.4	37	39.8	**392**	**57.3**
Good: can see 6/18	40	14.8	7	17.5	21	7.5	13	14.0	**81**	**11.8**
Borderline: can see 6/60	50	18.5	6	15.0	37	13.2	21	22.6	**114**	**16.7**
Poor: cannot see 6/60	42	15.6	5	12.5	28	10.0	22	23.7	**97**	**14.2**
Total	**270**	**100.0**	**40**	**100.0**	**281**	**100.0**	**93**	**100.0**	**684**	**100.0**

7. Post-op presenting VA and causes of borderline and poor outcome

	Selection		Surgery		Spectacles		Sequelae		Can see 6/12		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Very good: can see 6/12	0	0.0	0	0.0	0	0.0	0	0.0	392	100.0	**392**	**57.3**
Good: can see 6/18	2	3.7	37	25.3	42	47.2	0	0.0	0	0.0	**81**	**11.8**
Borderline: can see 6/60	11	20.4	60	41.1	41	46.1	2	66.7	0	0.0	**114**	**16.7**
Poor: cannot see 6/60	41	75.9	49	33.6	6	6.7	1	33.3	0	0.0	**97**	**14.2**
Total	**54**	**100.0**	**146**	**100.0**	**89**	**100.0**	**3**	**100.0**	**392**	**100.0**	**684**	**100.0**

8. Proportion and type of surgery

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Non-IOL	18	5.7	32	8.7	**50**	**7.3**
IOL	299	94.3	335	91.3	**634**	**92.7**
Couching	0	0.0	0	0.0	**0**	**0.0**
Total	**317**	**100.0**	**367**	**100.0**	**684**	**100.0**

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

INDICATORS BY SEX AND BY AGE GROUP - FINDINGS FROM SAMPLE

Date and time of report:	13-Jan-16	1:59:15PM
This report is for the survey area:	SIKAR	
Year and month when survey was conducted:	2015-12 until 2015-12	

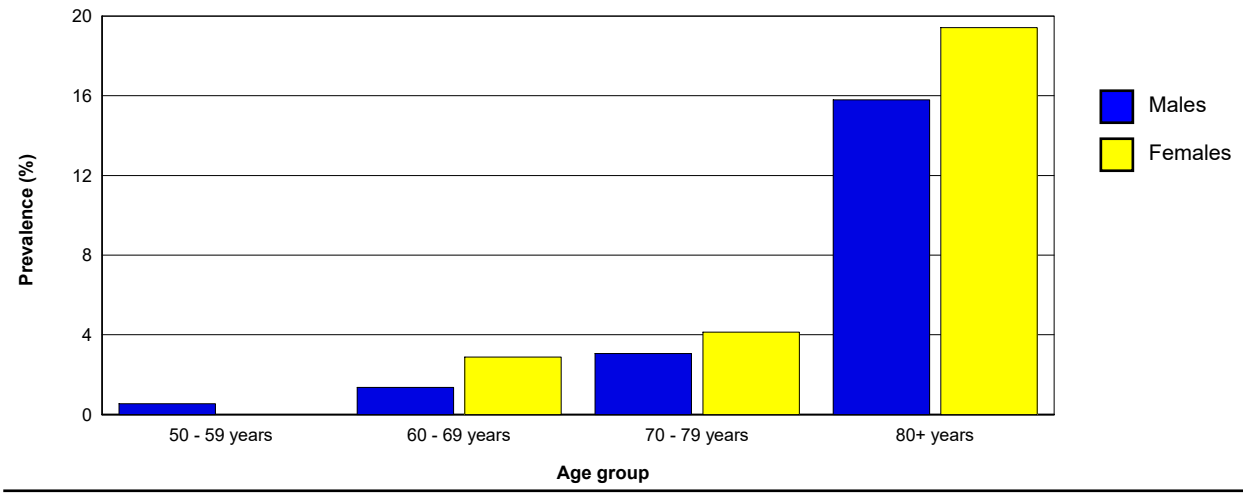
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals for prevalence of various conditions can be calculated with menu Reports / Sampling error & Design Effect.

1. Age and sex distribution of people examined in the sample

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	546	42.3%	750	48.5%	1,296	45.4%
60 - 69 years	440	34.1%	451	29.2%	891	31.6%
70 - 79 years	229	17.7%	242	15.7%	471	16.7%
80+ years	76	5.9%	103	6.7%	179	6.3%
Total	**1,291**	**100.0%**	**1,546**	**100.0%**	**2,837**	**100.0%**

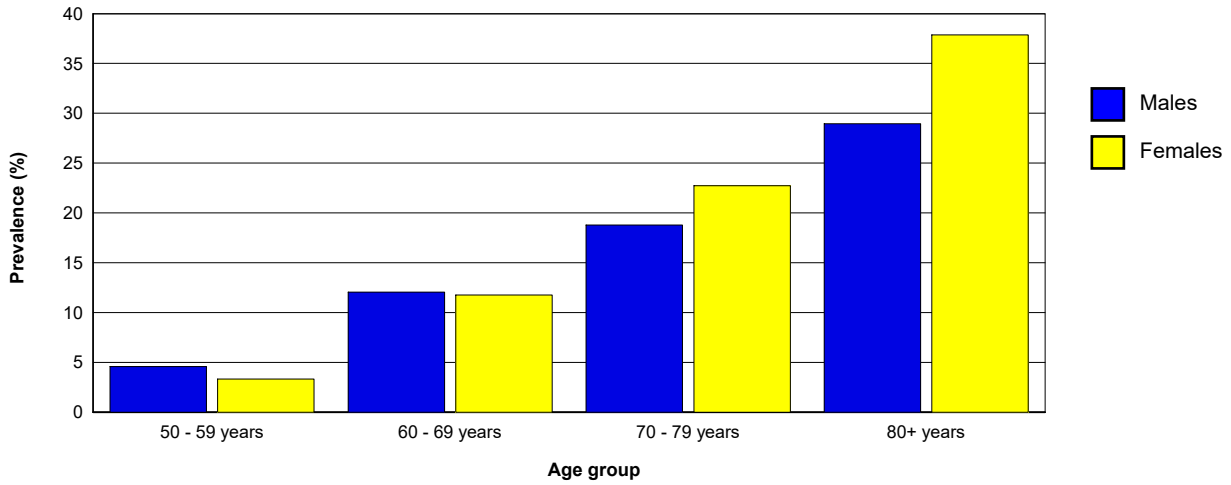
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.5%	0	0.0%	3	0.2%
60 - 69 years	6	1.4%	13	2.9%	19	2.1%
70 - 79 years	7	3.1%	10	4.1%	17	3.6%
80+ years	12	15.8%	20	19.4%	32	17.9%
Total	**28**	**2.2%**	**43**	**2.8%**	**71**	**2.5%**



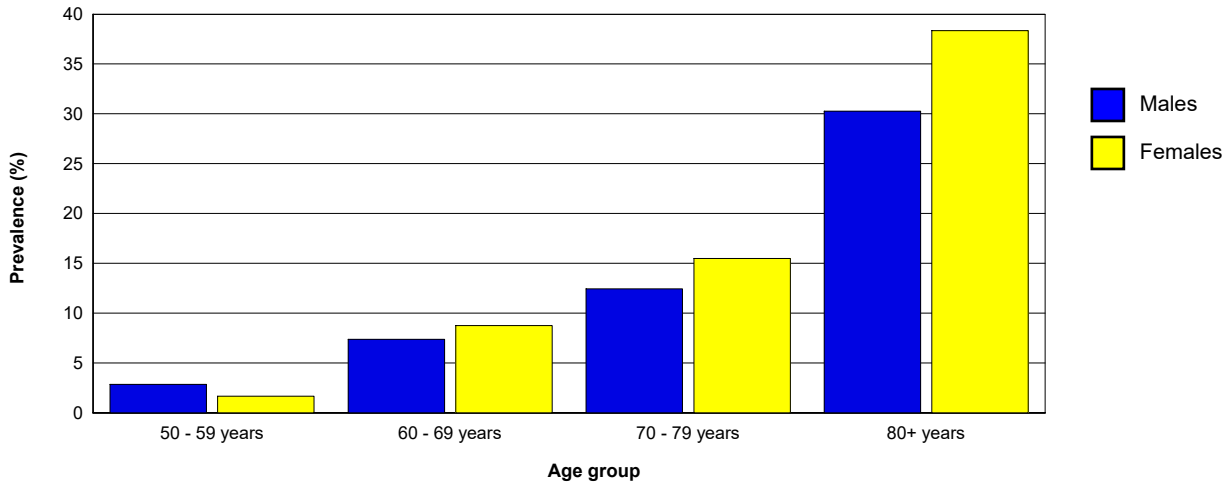
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	25	4.6%	25	3.3%	50	3.9%
60 - 69 years	53	12.0%	53	11.8%	106	11.9%
70 - 79 years	43	18.8%	55	22.7%	98	20.8%
80+ years	22	28.9%	39	37.9%	61	34.1%
Total	**143**	**11.1%**	**172**	**11.1%**	**315**	**11.1%**



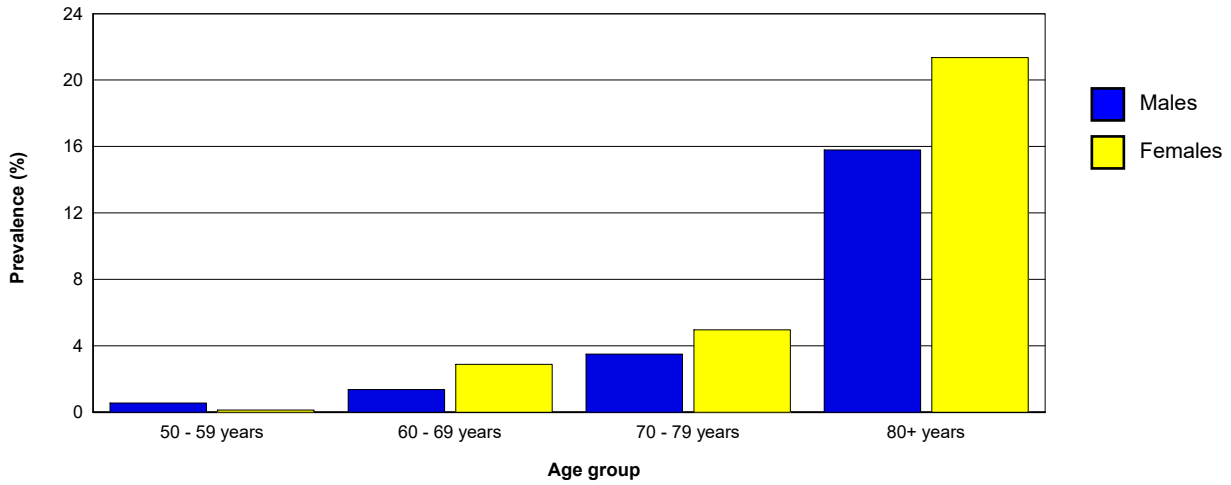
4. Prevalence of blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	31	2.8%	25	1.7%	56	2.2%
60 - 69 years	65	7.4%	79	8.8%	144	8.1%
70 - 79 years	57	12.4%	75	15.5%	132	14.0%
80+ years	46	30.3%	79	38.3%	125	34.9%
Total	**199**	**7.7%**	**258**	**8.3%**	**457**	**8.1%**



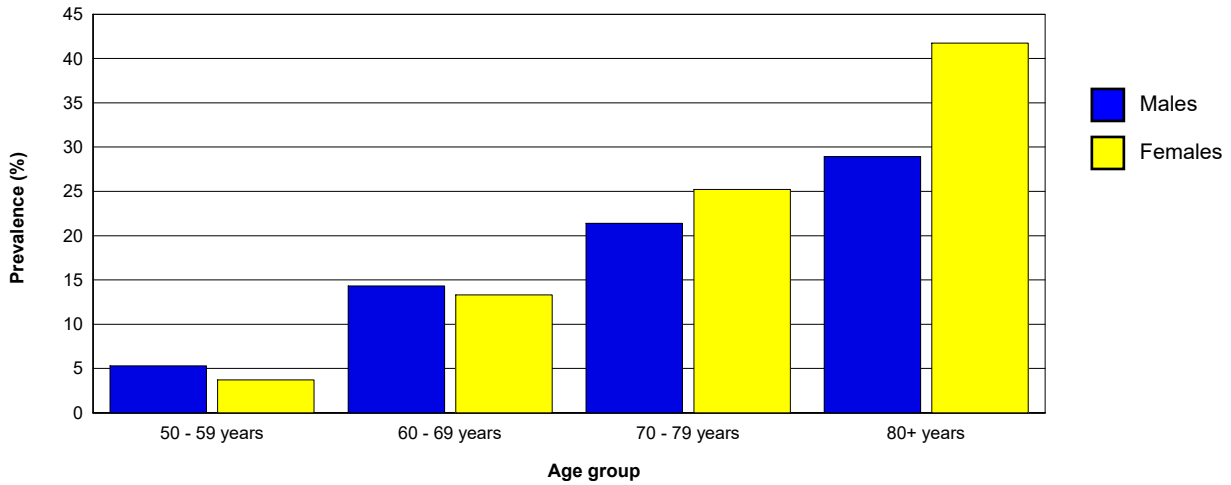
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.5%	1	0.1%	4	0.3%
60 - 69 years	6	1.4%	13	2.9%	19	2.1%
70 - 79 years	8	3.5%	12	5.0%	20	4.2%
80+ years	12	15.8%	22	21.4%	34	19.0%
Total	**29**	**2.2%**	**48**	**3.1%**	**77**	**2.7%**



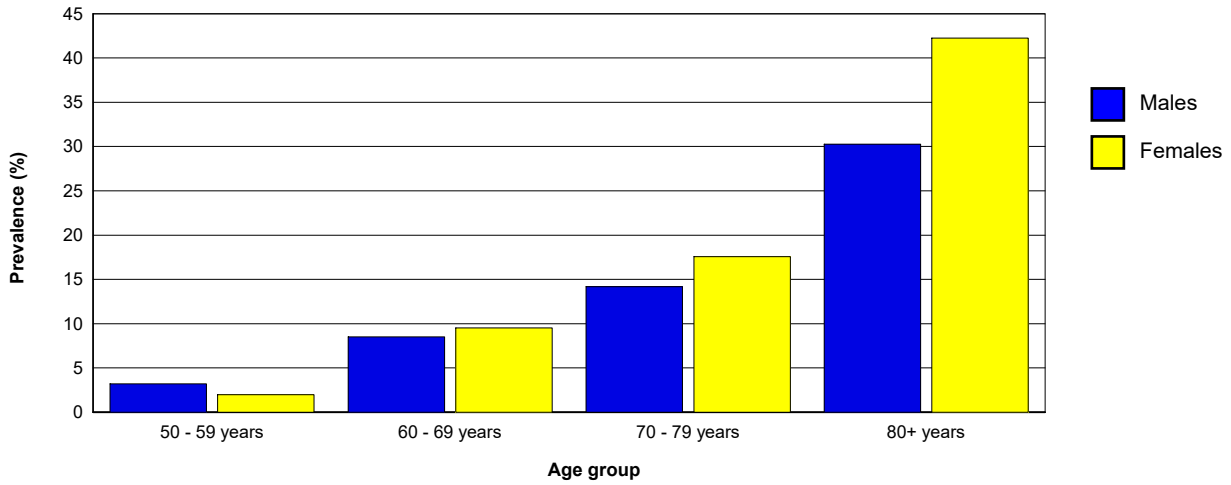
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	29	5.3%	28	3.7%	57	4.4%
60 - 69 years	63	14.3%	60	13.3%	123	13.8%
70 - 79 years	49	21.4%	61	25.2%	110	23.4%
80+ years	22	28.9%	43	41.7%	65	36.3%
Total	**163**	**12.6%**	**192**	**12.4%**	**355**	**12.5%**



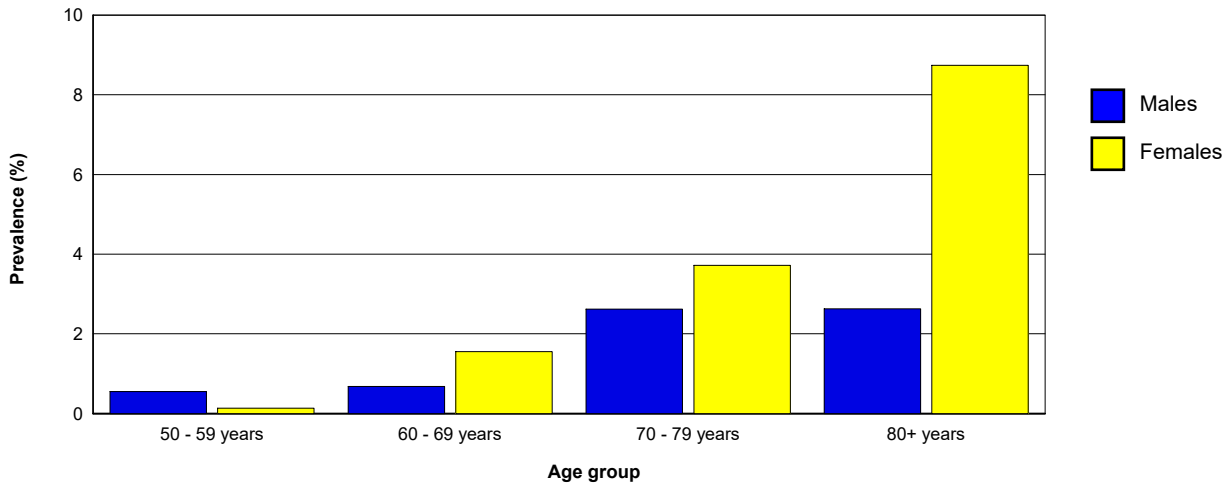
7. Prevalence of blind eyes - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	35	3.2%	30	2.0%	65	2.5%
60 - 69 years	75	8.5%	86	9.5%	161	9.0%
70 - 79 years	65	14.2%	85	17.6%	150	15.9%
80+ years	46	30.3%	87	42.2%	133	37.2%
Total	**221**	**8.6%**	**288**	**9.3%**	**509**	**9.0%**



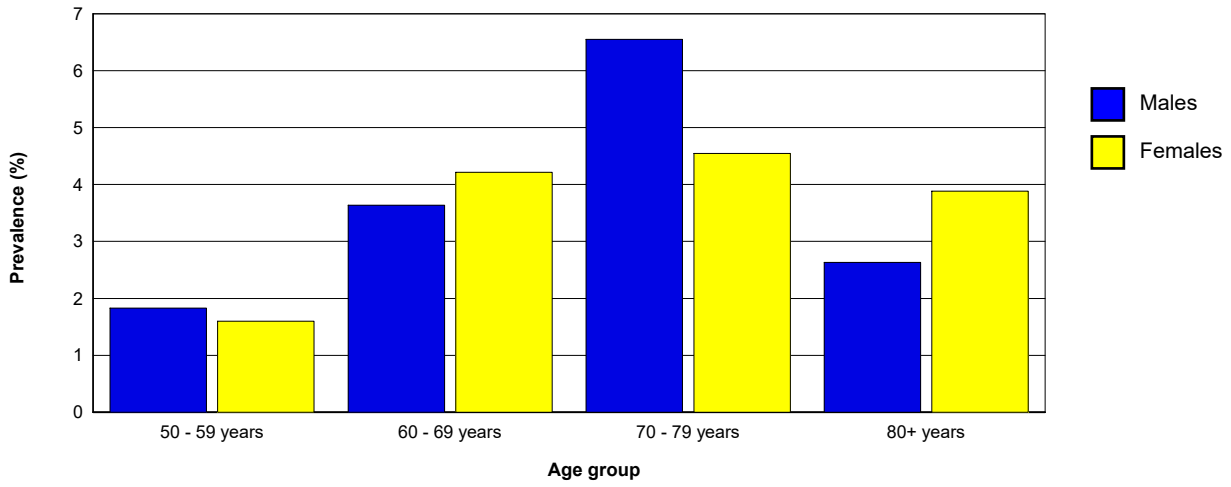
8. Prevalence of people with bilateral severe visual impairment - VA<6/60-3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.5%	1	0.1%	4	0.3%
60 - 69 years	3	0.7%	7	1.6%	10	1.1%
70 - 79 years	6	2.6%	9	3.7%	15	3.2%
80+ years	2	2.6%	9	8.7%	11	6.1%
Total	**14**	**1.1%**	**26**	**1.7%**	**40**	**1.4%**



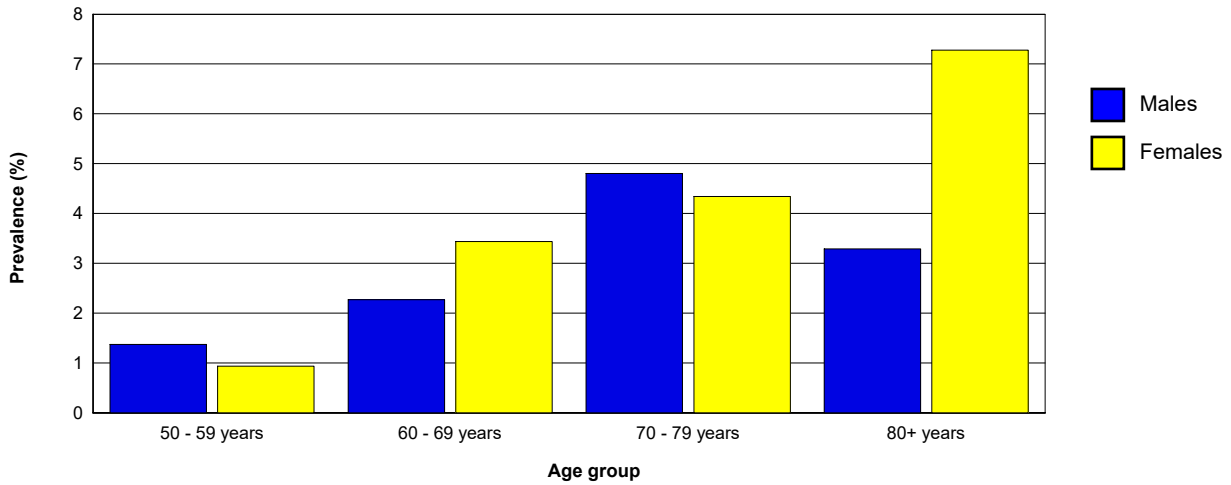
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	10	1.8%	12	1.6%	22	1.7%
60 - 69 years	16	3.6%	19	4.2%	35	3.9%
70 - 79 years	15	6.6%	11	4.5%	26	5.5%
80+ years	2	2.6%	4	3.9%	6	3.4%
Total	**43**	**3.3%**	**46**	**3.0%**	**89**	**3.1%**



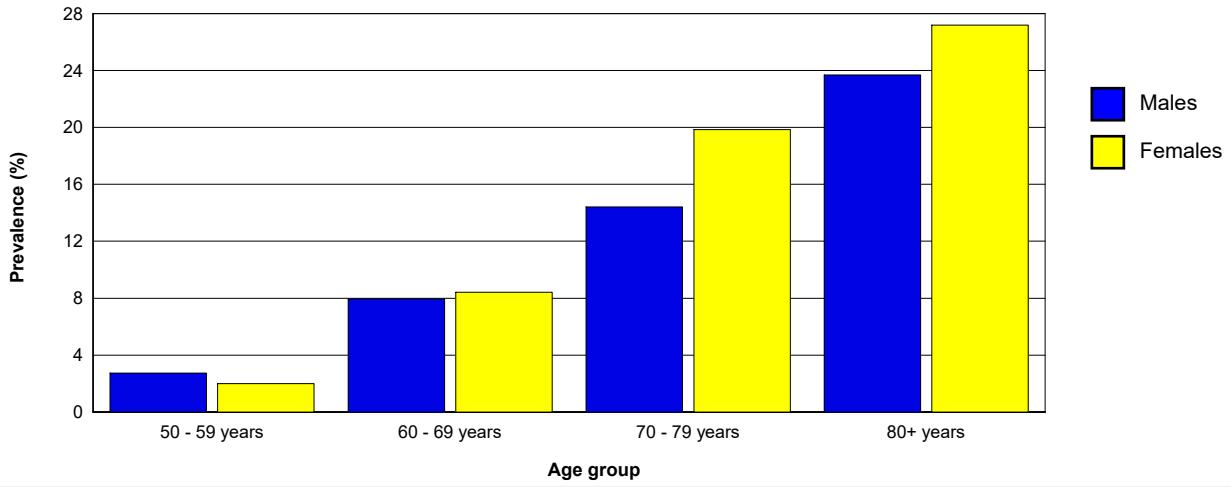
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	15	1.4%	14	0.9%	29	1.1%
60 - 69 years	20	2.3%	31	3.4%	51	2.9%
70 - 79 years	22	4.8%	21	4.3%	43	4.6%
80+ years	5	3.3%	15	7.3%	20	5.6%
Total	**62**	**2.4%**	**81**	**2.6%**	**143**	**2.5%**



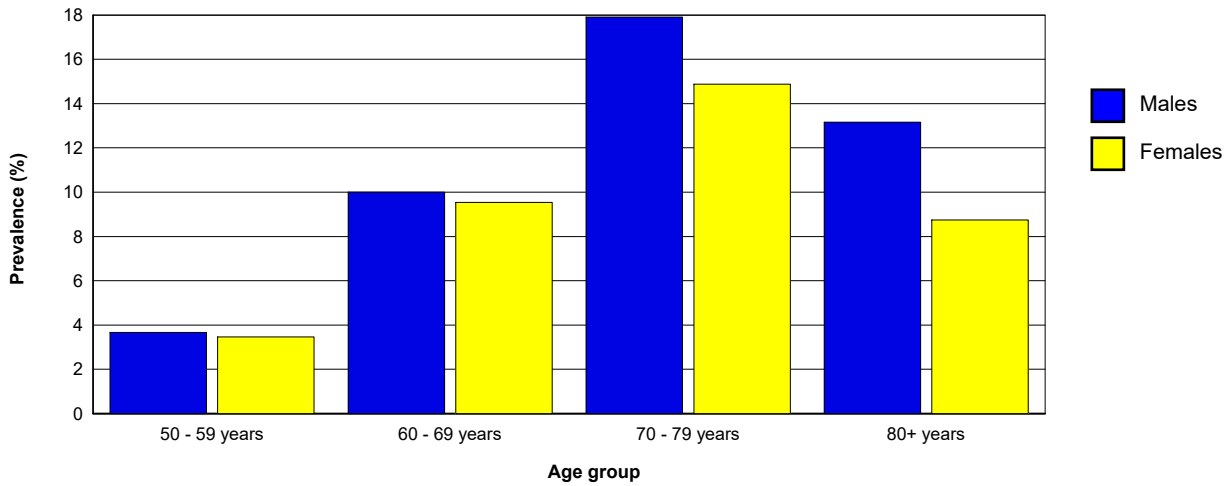
11. Prevalence of people with bilateral moderate visual impairment - VA <6/18-6/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	15	2.7%	15	2.0%	30	2.3%
60 - 69 years	35	8.0%	38	8.4%	73	8.2%
70 - 79 years	33	14.4%	48	19.8%	81	17.2%
80+ years	18	23.7%	28	27.2%	46	25.7%
Total	**101**	**7.8%**	**129**	**8.3%**	**230**	**8.1%**



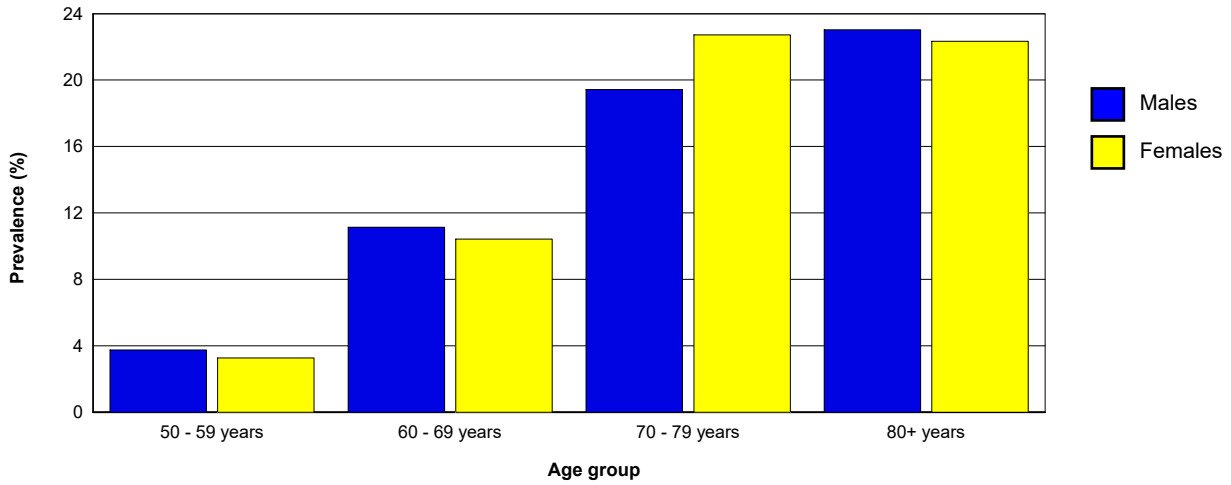
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	20	3.7%	26	3.5%	46	3.5%
60 - 69 years	44	10.0%	43	9.5%	87	9.8%
70 - 79 years	41	17.9%	36	14.9%	77	16.3%
80+ years	10	13.2%	9	8.7%	19	10.6%
Total	**115**	**8.9%**	**114**	**7.4%**	**229**	**8.1%**



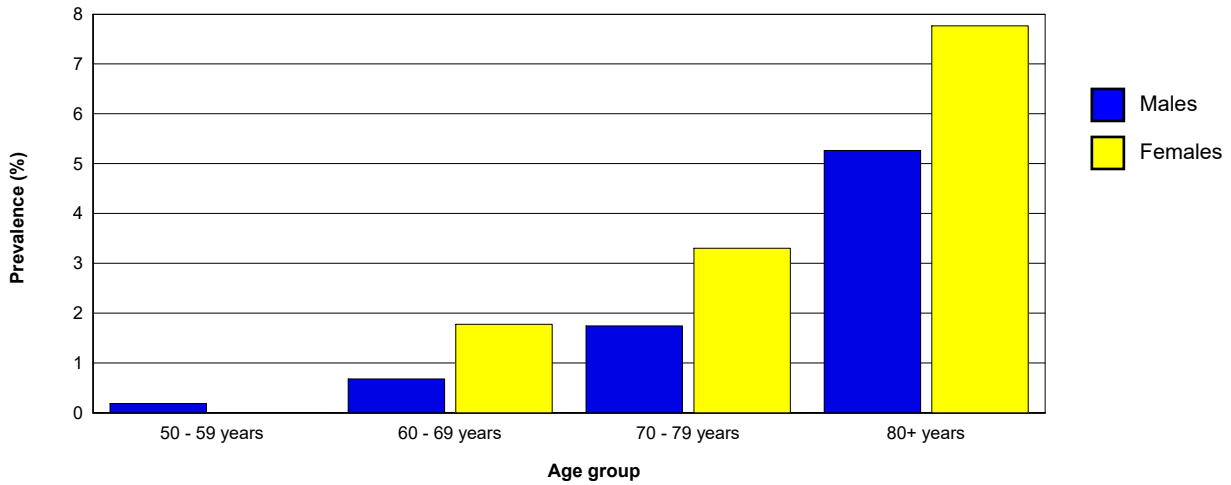
13. Prevalence of MVI eyes - VA<6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	41	3.8%	49	3.3%	90	3.5%
60 - 69 years	98	11.1%	94	10.4%	192	10.8%
70 - 79 years	89	19.4%	110	22.7%	199	21.1%
80+ years	35	23.0%	46	22.3%	81	22.6%
Total	**263**	**10.2%**	**299**	**9.7%**	**562**	**9.9%**



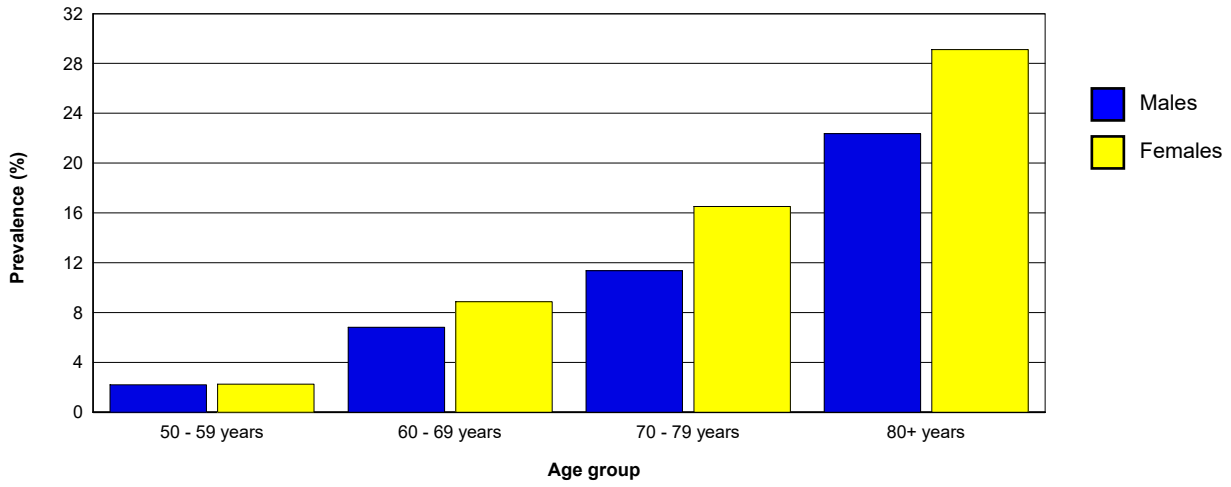
14. Prevalence of people bilateral blind due to cataract - VA<3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2%	0	0.0%	1	0.1%
60 - 69 years	3	0.7%	8	1.8%	11	1.2%
70 - 79 years	4	1.7%	8	3.3%	12	2.5%
80+ years	4	5.3%	8	7.8%	12	6.7%
Total	**12**	**0.9%**	**24**	**1.6%**	**36**	**1.3%**



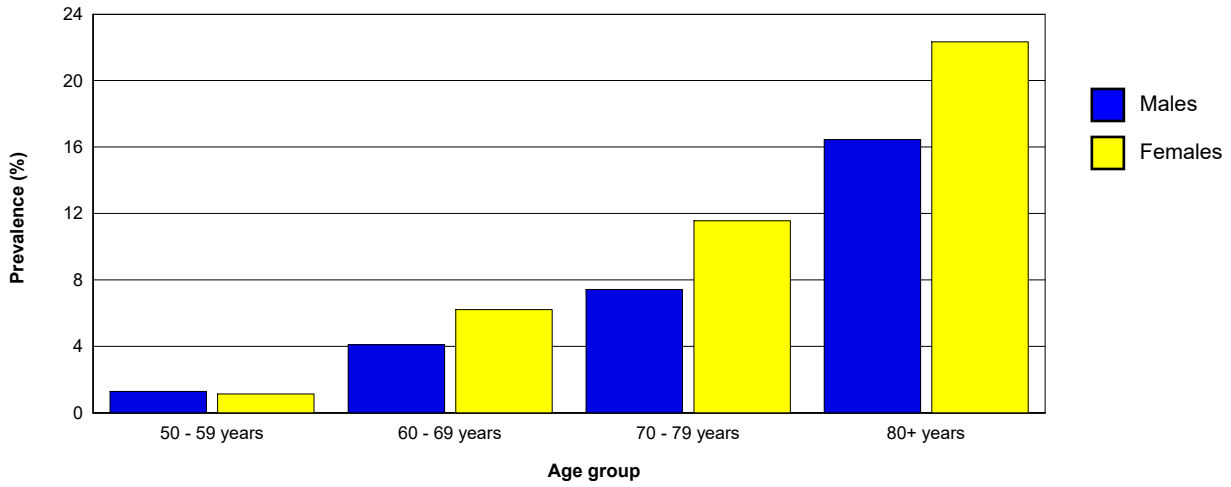
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	12	2.2%	17	2.3%	29	2.2%
60 - 69 years	30	6.8%	40	8.9%	70	7.9%
70 - 79 years	26	11.4%	40	16.5%	66	14.0%
80+ years	17	22.4%	30	29.1%	47	26.3%
Total	**85**	**6.6%**	**127**	**8.2%**	**212**	**7.5%**



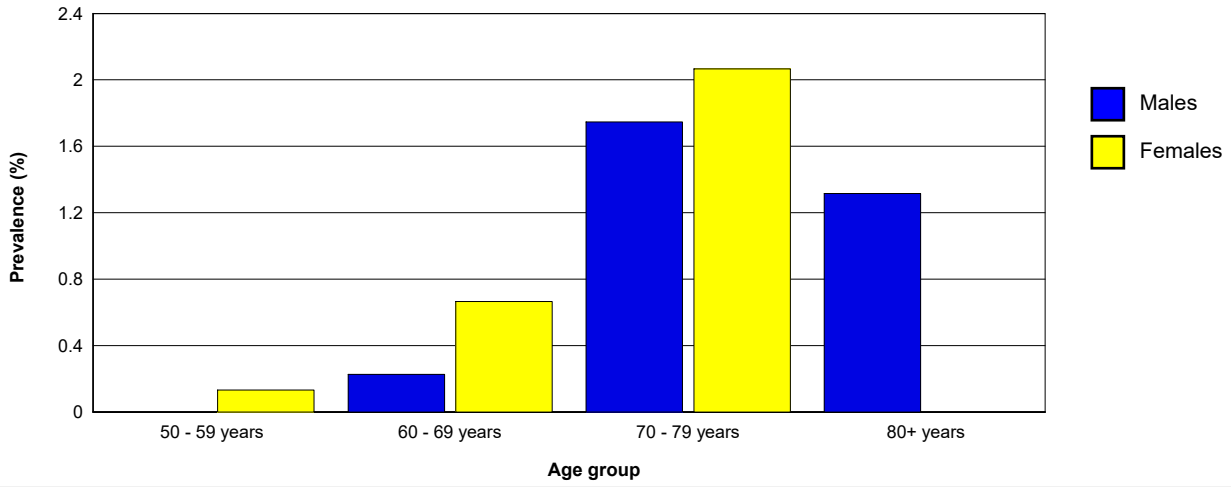
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	14	1.3%	17	1.1%	31	1.2%
60 - 69 years	36	4.1%	56	6.2%	92	5.2%
70 - 79 years	34	7.4%	56	11.6%	90	9.6%
80+ years	25	16.4%	46	22.3%	71	19.8%
Total	**109**	**4.2%**	**175**	**5.7%**	**284**	**5.0%**



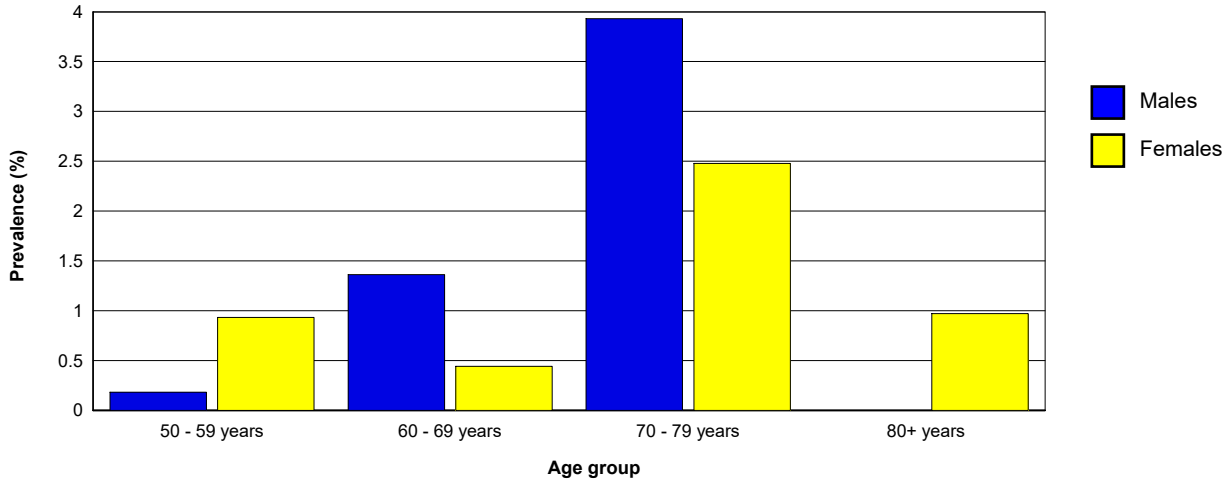
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	0	0.0%	1	0.1%	1	0.1%
60 - 69 years	1	0.2%	3	0.7%	4	0.4%
70 - 79 years	4	1.7%	5	2.1%	9	1.9%
80+ years	1	1.3%	0	0.0%	1	0.6%
Total	**6**	**0.5%**	**9**	**0.6%**	**15**	**0.5%**



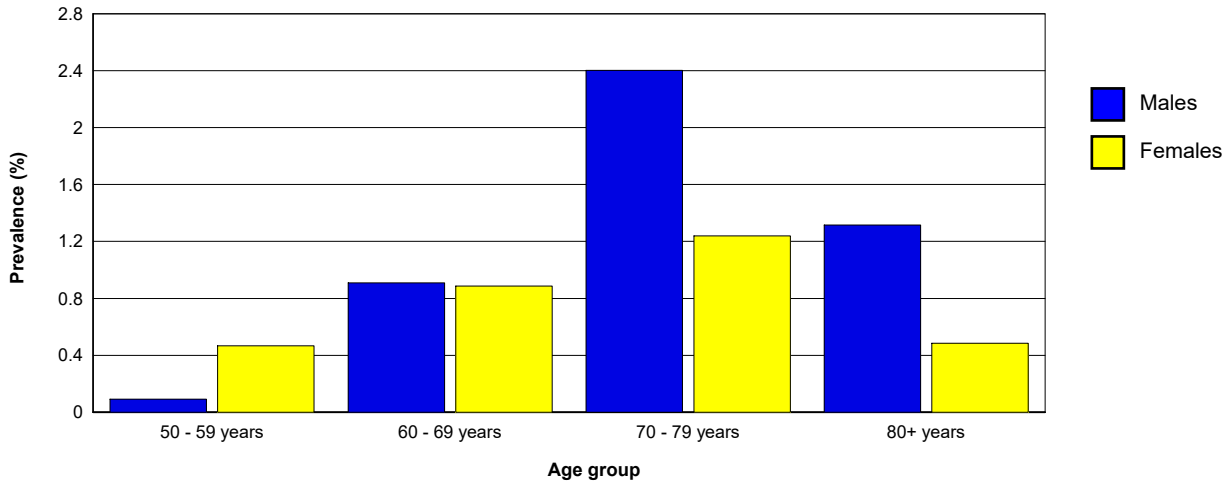
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA<6/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2%	7	0.9%	8	0.6%
60 - 69 years	6	1.4%	2	0.4%	8	0.9%
70 - 79 years	9	3.9%	6	2.5%	15	3.2%
80+ years	0	0.0%	1	1.0%	1	0.6%
Total	**16**	**1.2%**	**16**	**1.0%**	**32**	**1.1%**



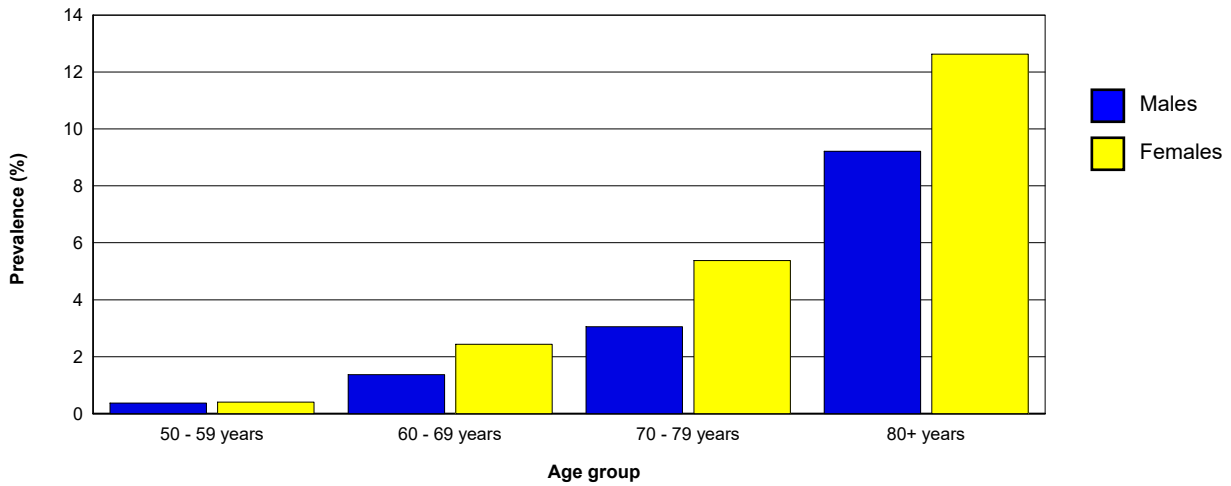
19. Prevalence of cataract SVI eyes - VA<6/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.1%	7	0.5%	8	0.3%
60 - 69 years	8	0.9%	8	0.9%	16	0.9%
70 - 79 years	11	2.4%	6	1.2%	17	1.8%
80+ years	2	1.3%	1	0.5%	3	0.8%
Total	**22**	**0.9%**	**22**	**0.7%**	**44**	**0.8%**



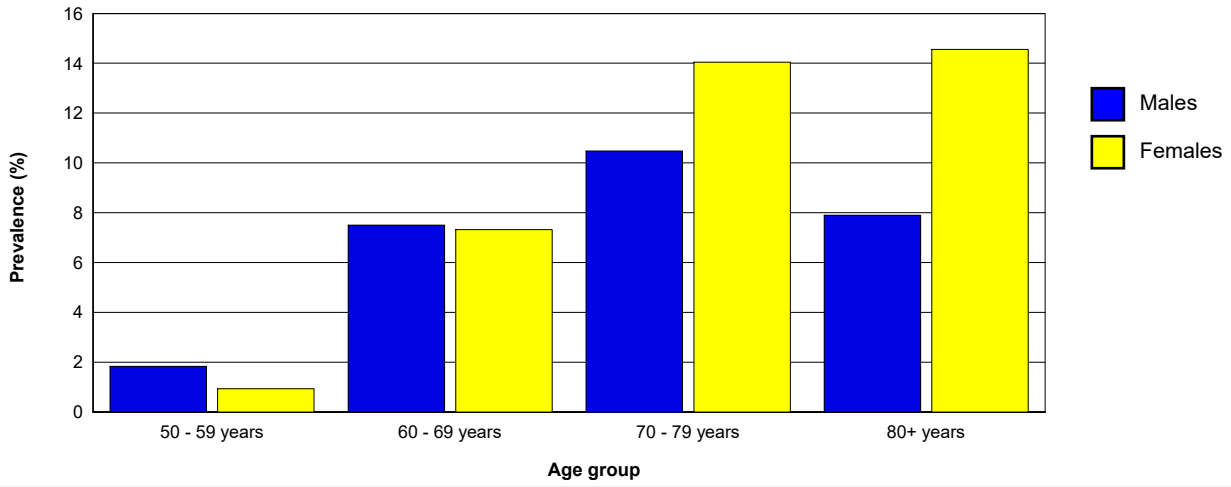
20. Prevalence of people with bilateral moderate visual impairment due to cataract - VA<6/18-6/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	2	0.4%	3	0.4%	5	0.4%
60 - 69 years	6	1.4%	11	2.4%	17	1.9%
70 - 79 years	7	3.1%	13	5.4%	20	4.2%
80+ years	7	9.2%	13	12.6%	20	11.2%
Total	**22**	**1.7%**	**40**	**2.6%**	**62**	**2.2%**



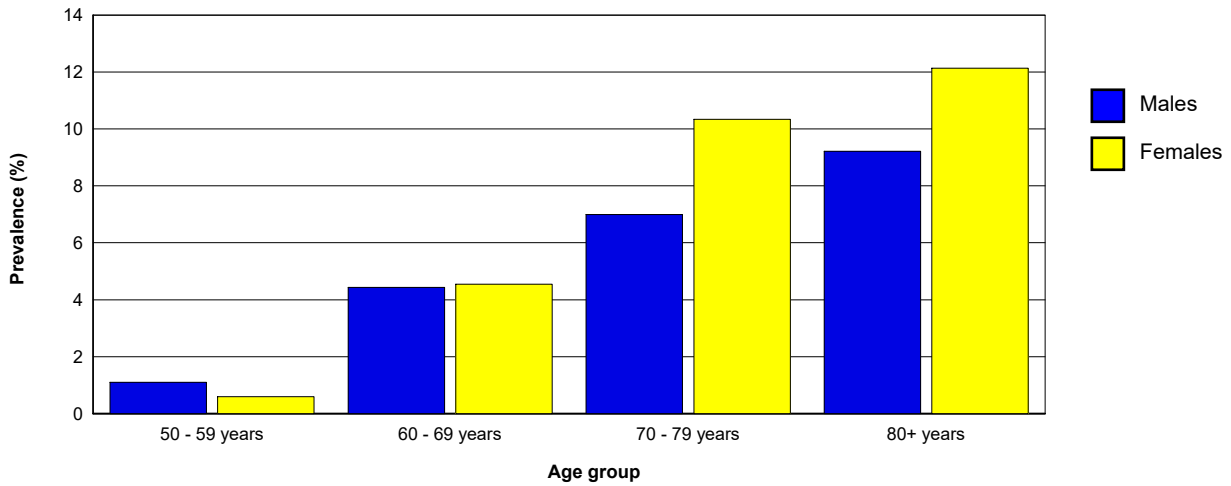
21. Prevalence of people with unilateral moderate visual impairment due to cataract - VA<6/18-6/60 best corrected

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	10	1.8%	7	0.9%	17	1.3%
60 - 69 years	33	7.5%	33	7.3%	66	7.4%
70 - 79 years	24	10.5%	34	14.0%	58	12.3%
80+ years	6	7.9%	15	14.6%	21	11.7%
Total	**73**	**5.7%**	**89**	**5.8%**	**162**	**5.7%**



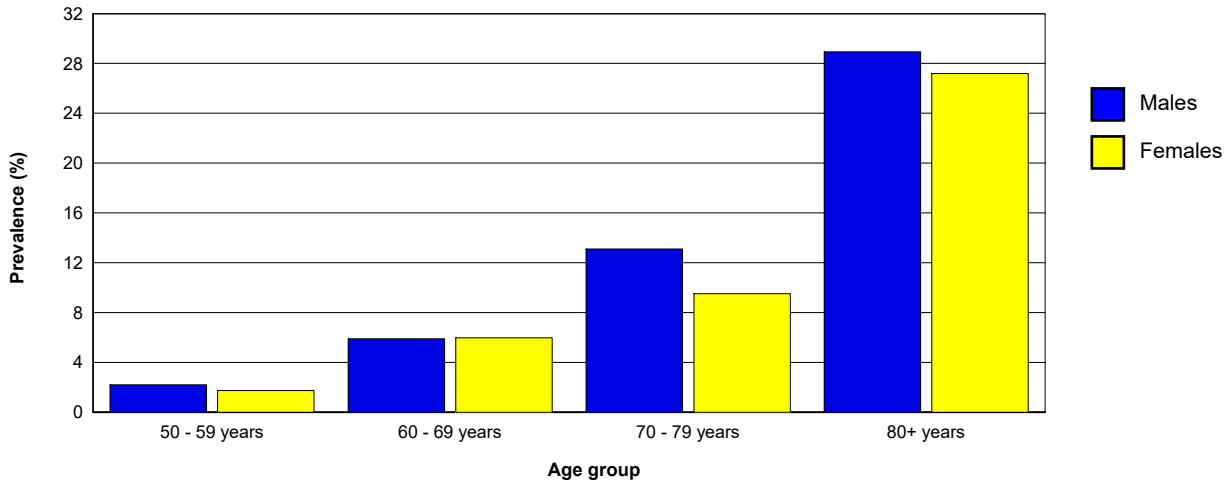
22. Prevalence of cataract MVI eyes - VA <6/18-6/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	12	1.1%	9	0.6%	21	0.8%
60 - 69 years	39	4.4%	41	4.5%	80	4.5%
70 - 79 years	32	7.0%	50	10.3%	82	8.7%
80+ years	14	9.2%	25	12.1%	39	10.9%
Total	**97**	**3.8%**	**125**	**4.0%**	**222**	**3.9%**



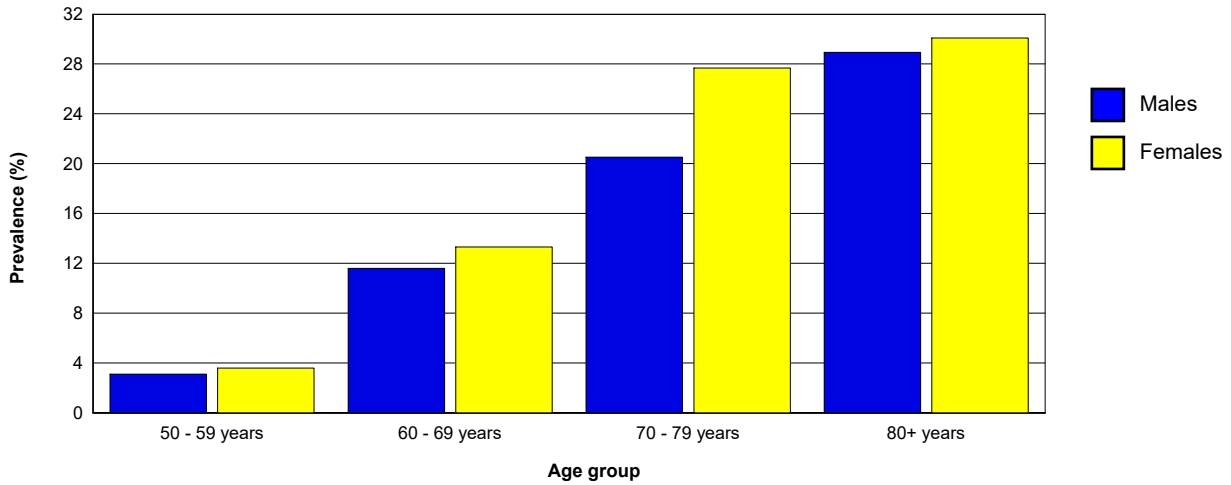
23. Prevalence of people with bilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	12	2.2%	13	1.7%	25	1.9%
60 - 69 years	26	5.9%	27	6.0%	53	5.9%
70 - 79 years	30	13.1%	23	9.5%	53	11.3%
80+ years	22	28.9%	28	27.2%	50	27.9%
Total	**90**	**7.0%**	**91**	**5.9%**	**181**	**6.4%**



24. Prevalence of people with unilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	17	3.1%	27	3.6%	44	3.4%
60 - 69 years	51	11.6%	60	13.3%	111	12.5%
70 - 79 years	47	20.5%	67	27.7%	114	24.2%
80+ years	22	28.9%	31	30.1%	53	29.6%
Total	**137**	**10.6%**	**185**	**12.0%**	**322**	**11.4%**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

AGE AND SEX ADJUSTED PREVALENCE AND ESTIMATED NUMBERS

Date and time of report: 13-Jan-16 2:00:05PM

This report is for the survey area: SIKAR

Year and month when survey was conducted: 2015-12 until 2015-12

The prevalence of blindness and visual impairment increases strongly with age and in most communities, females are more affected than males. Normally, the people examined in the sample should have the same composition by age and by sex as the total population in the survey area. When there is a difference, the prevalence for the survey area will also differ. Table 2 and 3 compare the composition in the sample with that of the survey area. By combining the age and sex specific prevalence with the actual population, the age and sex adjusted prevalence and the actual number of people affected in the survey area can be calculated. The 95% confidence interval, based on the sample error in cluster sampling, is also given.

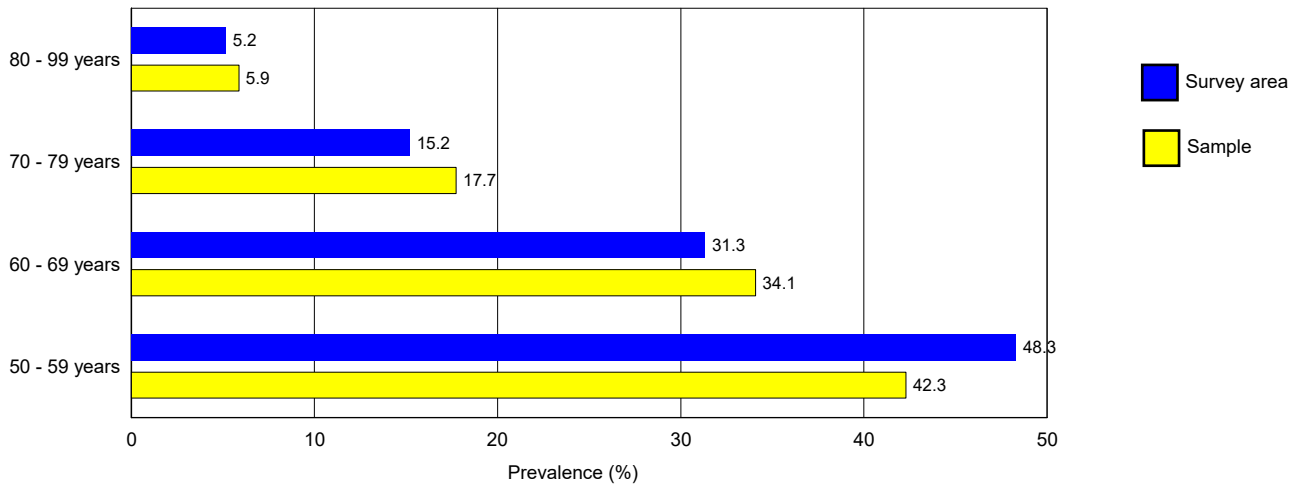
1. Age and sex distribution of people examined in the sample

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	546	42.3%	750	48.5%	**1,296**	**45.7%**
60 - 69 years	440	34.1%	451	29.2%	**891**	**31.4%**
70 - 79 years	229	17.7%	242	15.7%	**471**	**16.6%**
80 - 99 years	76	5.9%	103	6.7%	**179**	**6.3%**
Total	**1,291**	**100.0%**	**1,546**	**100.0%**	**2,837**	**100.0%**

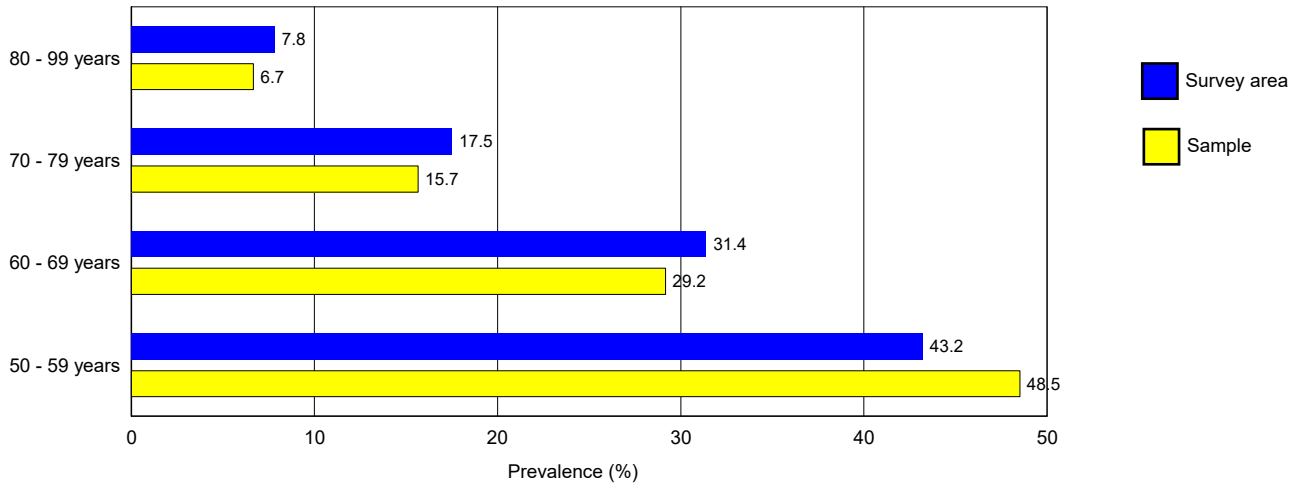
2. Total number of people aged 50+ in survey area

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	87,982	48.3%	86,051	43.2%	**174,033**	**45.7%**
60 - 69 years	57,066	31.3%	62,523	31.4%	**119,589**	**31.4%**
70 - 79 years	27,700	15.2%	34,891	17.5%	**62,591**	**16.4%**
80 - 99 years	9,401	5.2%	15,612	7.8%	**25,013**	**6.6%**
Total	**182,149**	**100.0%**	**199,077**	**100.0%**	**381,226**	**100.0%**

3. Proportion of males in total survey area and in sample



4. Proportion of females in total survey area and in sample



5. Adjusted results for all causes of blindness, severe (SVI), moderate (MVI) and early visual impairment (SVI)

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Blindness - VA < 3/60 in the better eye with best correction or pinhole						
All bilateral cases	3,592	2.0 (1.1 - 2.8)	6,275	3.2 (2.2 - 4.1)	9,867	2.6 (2.0 - 3.2)
All eyes	26,010	7.1 (6.0 - 8.3)	36,607	9.2 (7.9 - 10.5)	62,617	8.2 (7.2 - 9.2)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral cases	3,713	2.0 (1.2 - 2.9)	6,982	3.5 (2.6 - 4.4)	10,695	2.8 (2.2 - 3.4)
All eyes	28,919	7.9 (6.6 - 9.2)	40,806	10.2 (9.0 - 11.5)	69,725	9.1 (8.2 - 10.1)
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral cases	1,845	1.0 (0.5 - 1.5)	3,747	1.9 (1.3 - 2.5)	5,592	1.5 (1.0 - 1.9)
All eyes	8,290	2.3 (1.6 - 3.0)	11,206	2.8 (2.2 - 3.4)	19,496	2.6 (2.1 - 3.0)
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral cases	13,175	7.2 (5.5 - 8.9)	18,154	9.1 (7.3 - 10.9)	31,329	8.2 (6.9 - 9.6)
All eyes	34,412	9.4 (7.9 - 11.0)	41,485	10.4 (9.0 - 11.8)	75,897	10.0 (8.8 - 11.1)
Early visual impairment (EVI) - VA<6/12 - 6/18 in the better eye with available correction						
All bilateral cases	16,429	9.0 (7.5 - 10.5)	19,992	10.0 (8.5 - 11.6)	36,421	9.6 (8.4 - 10.8)
All eyes	35,502	9.7 (8.4 - 11.1)	45,416	11.4 (10.1 - 12.7)	80,918	10.6 (9.6 - 11.6)

6. Adjusted results for all causes of blindness, VA<3/60, <6/60 and <6/18 with available correction

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral cases	3,713	2.0 (1.2 - 2.9)	6,982	3.5 (2.6 - 4.4)	10,695	2.8 (2.2 - 3.4)
All eyes	28,919	7.9 (6.6 - 9.2)	40,806	10.2 (9.0 - 11.5)	69,725	9.1 (8.2 - 10.1)
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	5,559	3.1 (2.1 - 4.1)	10,729	5.4 (4.2 - 6.6)	16,288	4.3 (3.4 - 5.1)
All eyes	37,211	10.2 (8.9 - 11.6)	52,011	13.1 (11.6 - 14.6)	89,222	11.7 (10.6 - 12.8)
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	18,734	10.3 (8.5 - 12.1)	28,882	14.5 (12.1 - 16.9)	47,616	12.5 (10.9 - 14.1)
All eyes	71,622	19.7 (17.8 - 21.5)	93,496	23.5 (21.2 - 25.8)	165,118	21.7 (20.0 - 23.3)
VA<6/12 in the better eye, with available correction (presenting VA)						
All bilateral cases	35,162	19.3 (17.0 - 21.6)	48,875	24.6 (21.9 - 27.2)	84,037	22.0 (20.1 - 24.0)
All eyes	107,125	29.4 (27.1 - 31.7)	138,912	34.9 (32.2 - 37.6)	246,037	32.3 (30.2 - 34.4)

7. Adjusted results for cataract and blindness, SVI, MVI and EVI (best corrected)

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Cataract and VA<3/60 with best correction or pinhole						
Bilateral cataract	1,529	0.8 (0.3 - 1.3)	3,475	1.7 (1.1 - 2.4)	5,004	1.3 (0.8 - 1.8)
Unilateral cataract	11,073	6.1 (4.6 - 7.5)	17,809	8.9 (7.4 - 10.5)	28,882	7.6 (6.5 - 8.7)
Cataract eyes	14,130	3.9 (3.0 - 4.8)	24,759	6.2 (5.2 - 7.2)	38,889	5.1 (4.4 - 5.8)
Cataract and SVI - VA<6/60 - 3/60 in better eye with best correction or pinhole						
Bilateral cataract	738	0.4 (0.2 - 0.7)	1,252	0.6 (0.4 - 0.8)	1,990	0.5 (0.4 - 0.7)
Unilateral cataract	1,665	0.9 (0.2 - 1.6)	1,261	0.6 (0.1 - 1.2)	2,926	0.8 (0.4 - 1.2)
Cataract eyes	2,777	0.8 (0.3 - 1.2)	2,929	0.7 (0.4 - 1.1)	5,706	0.7 (0.5 - 1.0)
Cataract and Moderate VI (MVI) - VA<6/18 - 6/60 in better eye with best correction or pinhole						
Bilateral cataract	2,813	1.5 (1.1 - 2.0)	5,713	2.9 (2.3 - 3.5)	8,526	2.2 (1.9 - 2.6)
Unilateral cataract	8,252	4.5 (3.1 - 6.0)	9,420	4.7 (3.5 - 5.9)	17,672	4.6 (3.5 - 5.7)
Cataract eyes	12,595	3.5 (2.6 - 4.3)	17,715	4.4 (3.6 - 5.3)	30,310	4.0 (3.2 - 4.7)
Cataract and Early VI (EVI) - VA<6/12 - 6/18 in better eye with best correction or pinhole						
Bilateral cataract	5,732	1.6 (1.0 - 2.1)	7,860	2.0 (1.1 - 2.9)	13,592	1.8 (1.2 - 2.4)
Unilateral cataract	8,029	2.2 (0.6 - 3.8)	9,255	2.3 (1.3 - 3.4)	17,284	2.3 (1.3 - 3.2)
Cataract eyes	15,793	4.3 (3.4 - 5.3)	21,274	5.3 (4.3 - 6.4)	37,067	4.9 (4.1 - 5.6)

8. Adjusted results for cataract and VA<3/60, <6/60, < 6/18 and <6/12 with best correction

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Cataract and VA<3/60 with best correction or pinhole						
Bilateral cataract	1,529	0.8 (0.3 - 1.3)	3,475	1.7 (1.1 - 2.4)	5,004	1.3 (0.8 - 1.8)
Unilateral cataract	11,073	6.1 (4.6 - 7.5)	17,809	8.9 (7.4 - 10.5)	28,882	7.6 (6.5 - 8.7)
Cataract eyes	14,130	3.9 (3.0 - 4.8)	24,759	6.2 (5.2 - 7.2)	38,889	5.1 (4.4 - 5.8)
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	2,266	1.2 (0.7 - 1.8)	4,727	2.4 (1.7 - 3.1)	6,993	1.8 (1.4 - 2.3)
Unilateral cataract	12,738	7.0 (5.2 - 8.8)	19,072	9.6 (7.9 - 11.2)	31,810	8.3 (7.1 - 9.6)
Cataract eyes	16,907	4.6 (3.6 - 5.7)	27,689	7.0 (6.0 - 8.0)	44,596	5.8 (5.1 - 6.6)
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	5,078	2.8 (2.1 - 3.5)	10,441	5.2 (4.3 - 6.2)	15,519	4.1 (3.5 - 4.7)
Unilateral cataract	20,990	11.5 (9.2 - 13.8)	28,492	14.3 (12.1 - 16.5)	49,482	13.0 (11.3 - 14.6)
Cataract eyes	29,502	8.1 (6.7 - 9.5)	45,403	11.4 (10.1 - 12.8)	74,905	9.8 (8.8 - 10.9)
Cataract and VA<6/12 with best correction or pinhole						
Bilateral cataract	10,810	5.9 (5.0 - 6.8)	18,301	9.2 (8.0 - 10.3)	29,111	7.6 (6.9 - 8.4)
Unilateral cataract	29,018	15.9 (12.8 - 19.1)	37,746	19.0 (16.6 - 21.3)	66,764	17.5 (15.5 - 19.5)
Cataract eyes	45,295	12.4 (10.7 - 14.2)	66,678	16.7 (15.0 - 18.5)	111,973	14.7 (13.3 - 16.1)

9. Adjusted results for aphakia and pseudophakia

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Bilateral (pseudo)aphakia	11,656	6.4 (4.8 - 8.0)	12,795	6.4 (5.2 - 7.7)	24,451	6.4 (5.4 - 7.4)
Unilateral (pseudo)aphakia	17,759	9.8 (8.0 - 11.5)	25,775	12.9 (11.1 - 14.8)	43,534	11.4 (10.1 - 12.8)
Eyes (pseudo)aphakia	41,073	11.3 (9.5 - 13.1)	51,364	12.9 (11.4 - 14.4)	92,437	12.1 (10.8 - 13.4)

10. Adjusted results for cataract surgical coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	74.4	67.5	70.4
VA < 6/60	70.8	65.0	67.5
VA < 6/18	58.2	53.1	55.2
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	92.6	88.7	90.3
VA < 6/60	89.8	85.6	87.3
VA < 6/18	81.7	75.9	78.2