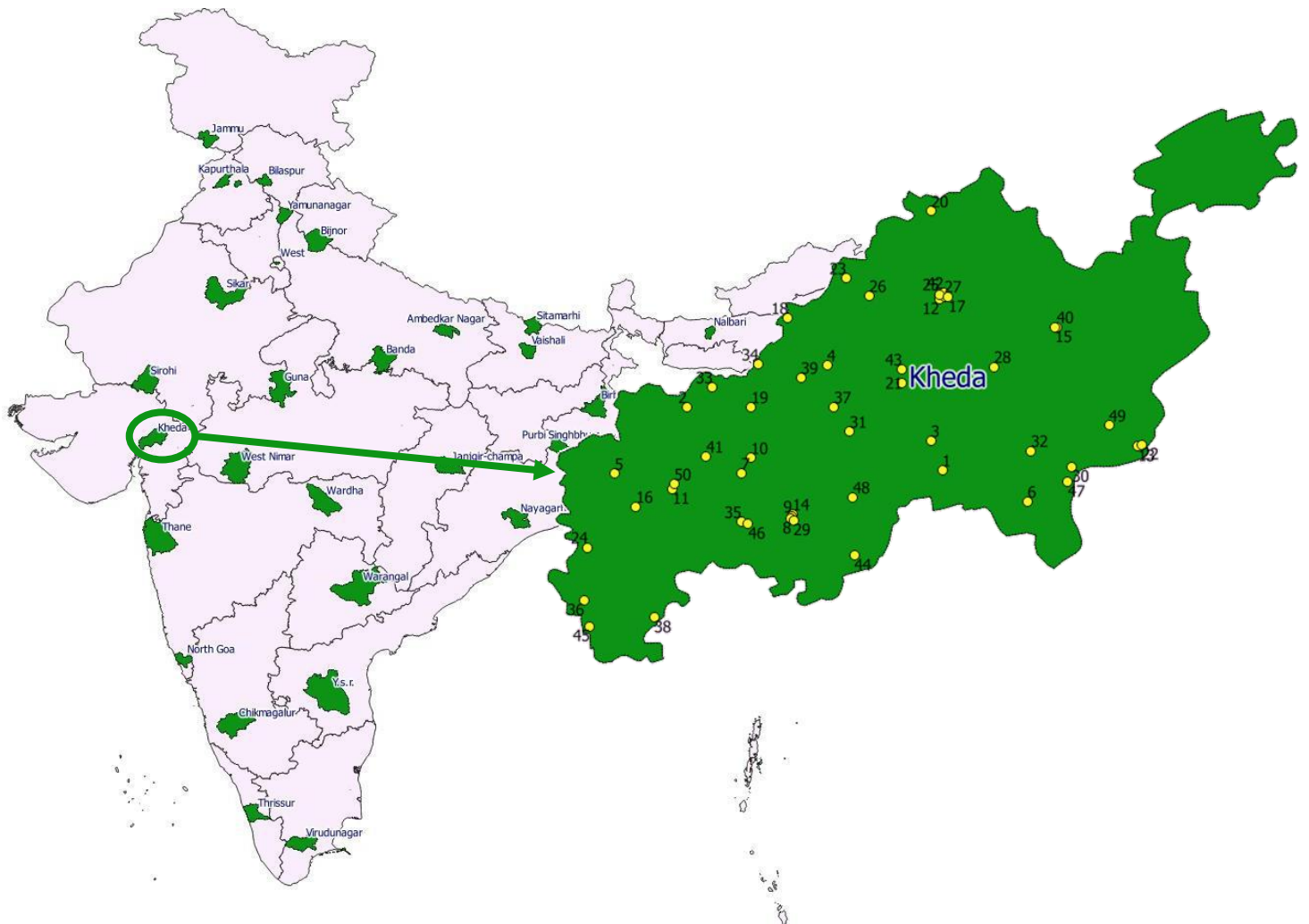


NPCB National Blindness Survey: 2015-2018

DISTRICT SUMMARY REPORT

Kheda, Gujarat





NPCB National Blindness Survey: 2015-2018

DISTRICT SUMMARY REPORT

Kheda, Gujarat

April 2017

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RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SUMMARY REPORT

Date and time of report: 03-Mar-16 11:42:20AM

This report is for the survey area: KHEDA

Year and month when survey was conducted: 2016- 2 until 2016- 2

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	1,177	88.4%	150	11.3%	2	0.2%	2	0.2%	1,331	100.0%
Females	1,575	94.4%	83	5.0%	6	0.4%	5	0.3%	1,669	100.0%
Total	2,752	91.7%	233	7.8%	8	0.3%	7	0.2%	3,000	100.0%

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

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	588	50.0%	808	51.3%	1,396	50.7%
60 - 69 years	388	33.0%	522	33.1%	910	33.1%
70 - 79 years	152	12.9%	187	11.9%	339	12.3%
80+ years	49	4.2%	58	3.7%	107	3.9%
Total	1,177	100.0%	1,575	100.0%	2,752	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	15	1.3 (0.7 - 1.9)	14	0.9 (0.5 - 1.3)	29	1.1 (0.7 - 1.4)
Severe VI	14	1.2 (0.3 - 2.1)	17	1.1 (0.5 - 1.6)	31	1.1 (0.6 - 1.7)
Moderate VI	98	8.3 (6.7 - 10.0)	131	8.3 (6.6 - 10.0)	229	8.3 (7.1 - 9.5)
Early VI	161	13.7 (11.1 - 16.2)	248	15.8 (13.0 - 18.5)	409	14.9 (12.6 - 17.1)
Functional Low Vision	15	1.3 (0.6 - 2.0)	21	1.3 (0.8 - 1.9)	36	1.3 (0.9 - 1.7)

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	2,401	1.3 (0.7 - 1.9)	2,066	1.0 (0.6 - 1.5)	4,467	1.2 (0.8 - 1.5)
Severe VI	2,222	1.2 (0.3 - 2.1)	2,501	1.3 (0.7 - 1.8)	4,723	1.2 (0.7 - 1.7)
Moderate VI	15,518	8.3 (6.6 - 9.9)	18,544	9.2 (7.6 - 10.9)	34,061	8.8 (7.6 - 10.0)
Early VI	25,345	13.5 (10.9 - 16.0)	32,272	16.1 (13.3 - 18.8)	57,612	14.8 (12.6 - 17.1)
Functional Low Vision	2,451	1.3 (0.6 - 2.0)	3,241	1.6 (1.1 - 2.1)	5,692	1.5 (1.0 - 1.9)

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	4	0.7 (0.0 - 1.3)	1	0.1 (0.0 - 0.4)	5	0.4 (0.1 - 0.7)
60 - 69 years	4	1.0 (0.1 - 2.0)	6	1.2 (0.3 - 2.0)	10	1.1 (0.5 - 1.7)
70 - 79 years	4	2.6 (0.2 - 5.1)	3	1.6 (0.0 - 3.4)	7	2.1 (0.4 - 3.7)
80+ years	3	6.1 (0.0 - 13.2)	4	6.9 (0.0 - 14.8)	7	6.5 (1.3 - 11.8)
All 50+ years	15	1.3 (0.7 - 1.9)	14	0.9 (0.5 - 1.3)	29	1.1 (0.7 - 1.4)

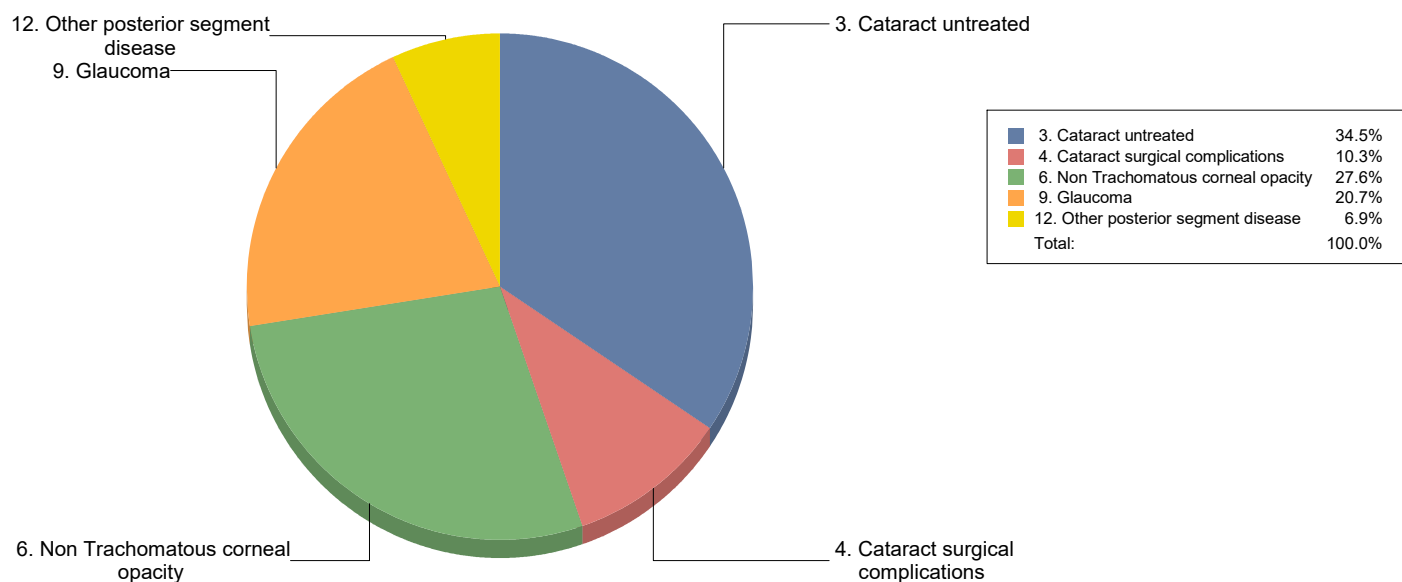
6. Principal cause of blindness, severe (SVI), moderate (MVI) and early (EVI) visual impairment in persons (PVA)

	Blindness		Severe VI		Moderate VI		Early VI	
	n	%	n	%	n	%	n	%
1. Refractive error	0	0.0%	0	0.0%	29	12.7%	293	71.6%
2. Aphakia uncorrected	0	0.0%	0	0.0%	1	0.4%	1	0.2%
3. Cataract untreated	10	34.5%	17	54.8%	144	62.9%	89	21.8%
4. Cataract surgical complications	3	10.3%	12	38.7%	48	21.0%	25	6.1%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	8	27.6%	1	3.2%	0	0.0%	1	0.2%
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	6	20.7%	0	0.0%	3	1.3%	0	0.0%
10. Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%	0	0.0%
11. ARMD	0	0.0%	0	0.0%	0	0.0%	0	0.0%
12. Other posterior segment disease	2	6.9%	1	3.2%	3	1.3%	0	0.0%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	1	0.4%	0	0.0%
Total	29	100.0%	31	100.0%	229	100.0%	409	100.0%

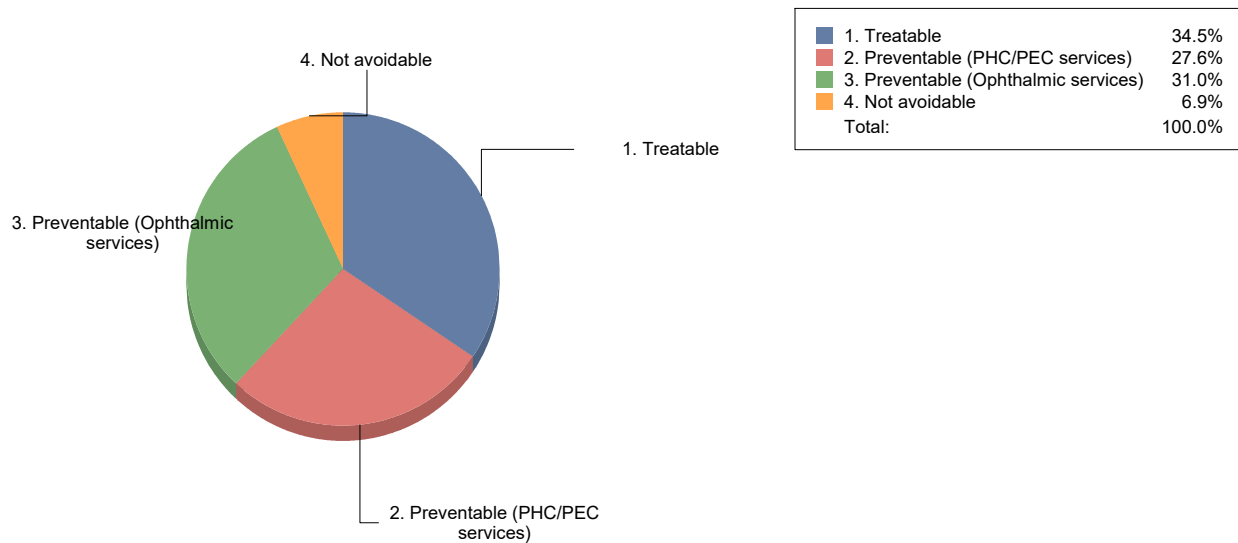
Blindness, SVI, MVI and EVI in persons by intervention category

A. Treatable (1,2,3)	10	34.5%	17	54.8%	174	76.0%	383	93.6%
B. Preventable (PHC/PEC services) (5,6,7,8)	8	27.6%	1	3.2%	0	0.0%	1	0.2%
C. Preventable (Ophthalmic services) (4,9,10)	9	31.0%	12	38.7%	51	22.3%	25	6.1%
D. Avoidable (A+B+C)	27	93.1%	30	96.8%	225	98.3%	409	100.0%
E. Posterior segment causes (8,9,10,11,12)	8	27.6%	1	3.2%	6	2.6%	0	0.0%

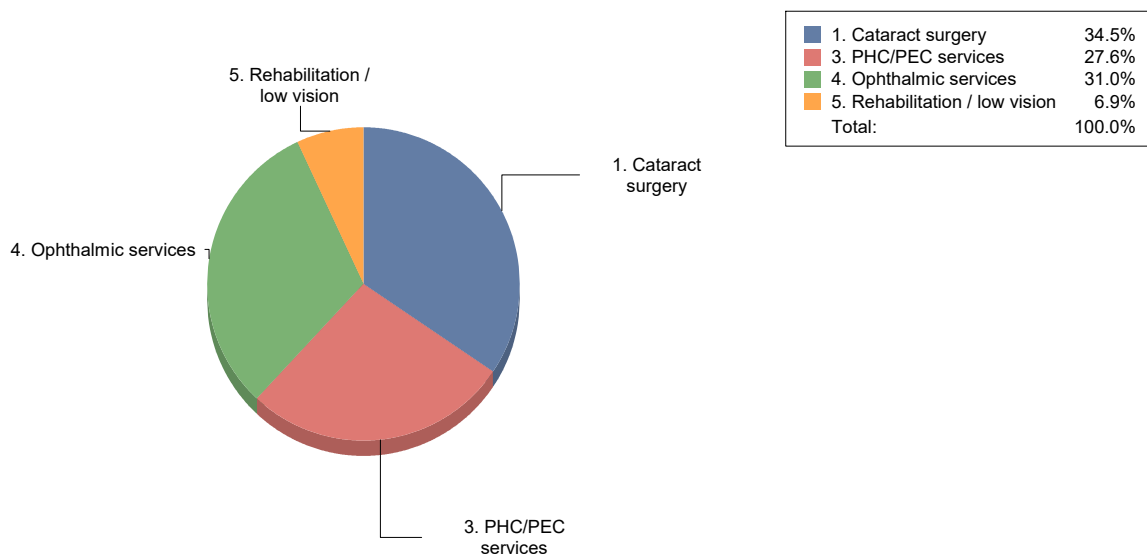
7. Graph: main cause of blindness in persons



8. Graph: main category of blindness in persons



9. Graph: action required to reduce blindness



10. Cataract surgical coverage (persons) - percentage

	Males	Females	Total
VA < 3/60	97.8	99.7	98.9
VA < 6/60	95.3	98.7	97.4
VA < 6/18	84.5	88.9	87.1

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

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	2	22.2%	1	25.0%	3	23.1%
Fear	0	0.0%	0	0.0%	0	0.0%
Cost	2	22.2%	0	0.0%	2	15.4%
Treatment denied by provider	0	0.0%	1	25.0%	1	7.7%
Unaware treatment is possible	0	0.0%	0	0.0%	0	0.0%
Cannot access treatment	3	33.3%	0	0.0%	3	23.1%
Local reason	2	22.2%	2	50.0%	4	30.8%
Total	9	100.0%	4	100.0%	13	100.0%

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

	Males		Females		Total	
	n	%	n	%	n	%
Very good: can see 6/12	248	53.1%	351	51.5%	599	52.1%
Good: can see 6/18	87	18.6%	145	21.3%	232	20.2%
Borderline: can see 6/60	84	18.0%	120	17.6%	204	17.8%
Poor: cannot see 6/60	48	10.3%	66	9.7%	114	9.9%
Total	467	100.0%	682	100.0%	1,149	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	3	6.1%	596	54.2%	599	52.1%
Good: can see 6/18	1	2.0%	231	21.0%	232	20.2%
Borderline: can see 6/60	13	26.5%	191	17.4%	204	17.8%
Poor: cannot see 6/60	32	65.3%	82	7.5%	114	9.9%
Total	49	100.0%	1,100	100.0%	1,149	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%	599	100.0%
Good: can see 6/18	0	0.0%	77	25.8%	155	79.5%	0	0.0%	0	0.0%
Borderline: can see 6/60	11	20.0%	159	53.4%	34	17.4%	0	0.0%	0	0.0%
Poor: cannot see 6/60	44	80.0%	62	20.8%	6	3.1%	2	100.0%	0	0.0%
Total	55	100.0%	298	100.0%	195	100.0%	2	100.0%	599	100.0%

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report: 03-Mar-16 11:43:59AM

This report is for the survey area: KHEDA

Year and month when survey was conducted: 2016- 2 until 2016- 2

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	1,177	88.4%	150	11.3%	2	0.2%	2	0.2%	1,331	100.0%
Females	1,575	94.4%	83	5.0%	6	0.4%	5	0.3%	1,669	100.0%
Total	2,752	91.7%	233	7.8%	8	0.3%	7	0.2%	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	15	1.3% (0.7-1.9)	11	0.7% (0.3-1.1)	26	0.9% (0.6-1.3)
All blind eyes	110	4.7% (3.7-5.6)	120	3.8% (3.2-4.5)	230	4.2% (3.6-4.8)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	15	1.3% (0.7-1.9)	14	0.9% (0.5-1.3)	29	1.1% (0.7-1.4)
All blind eyes	118	5.0% (4.0-6.1)	135	4.3% (3.6-4.9)	253	4.6% (4.0-5.2)
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral Severe VI	14	1.2% (0.3-2.1)	17	1.1% (0.5-1.6)	31	1.1% (0.6-1.7)
All Severe VI eyes	58	2.5% (1.6-3.3)	66	2.1% (1.5-2.7)	124	2.3% (1.8-2.7)
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral MVI	98	8.3% (6.7-10.0)	131	8.3% (6.6-10.0)	229	8.3% (7.1-9.5)
All Moderate VI eyes	289	12.3% (10.7-13.8)	359	11.4% (9.8-13.0)	648	11.8% (10.5-13.0)
Early visual impairment (EVI) - VA<6/12 - 6/18 in the better eye with available correction						
All bilateral EVI	161	13.7% (11.1-16.2)	248	15.8% (13.0-18.5)	409	14.9% (12.6-17.1)
All Early VI eyes	339	14.4% (11.9-16.9)	557	17.7% (15.1-20.3)	896	16.3% (14.1-18.5)

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	15	1.3% (0.7-1.9)	14	0.9% (0.5-1.3)	29	1.1% (0.7-1.4)
All blind eyes	118	5.0% (4.0-6.1)	135	4.3% (3.6-4.9)	253	4.6% (4.0-5.2)
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	29	2.5% (1.5-3.4)	31	2.0% (1.2-2.7)	60	2.2% (1.6-2.7)
All eyes	176	7.5% (6.0-8.9)	201	6.4% (5.5-7.3)	377	6.9% (6.0-7.7)
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	127	10.8% (8.8-12.8)	162	10.3% (8.6-12.0)	289	10.5% (9.1-11.9)
All eyes	465	19.8% (17.4-22.1)	560	17.8% (15.7-19.8)	1,025	18.6% (16.9-20.3)
VA<6/12 in the better eye, with available correction (presenting VA)						
All bilateral cases	288	24.5% (21.4-27.5)	410	26.0% (22.4-29.7)	698	25.4% (22.4-28.4)
All eyes	804	34.2% (30.8-37.5)	1,117	35.5% (31.7-39.3)	1,921	34.9% (31.7-38.1)

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	3	20.0%	7	50.0%	10	34.5%
4. Cataract surgical complications	3	20.0%	0	0.0%	3	10.3%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	4	26.7%	4	28.6%	8	27.6%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	5	33.3%	1	7.1%	6	20.7%
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	0	0.0%	2	14.3%	2	6.9%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	15	100.0%	14	100.0%	29	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	3	20.0%	7	50.0%	10	34.5%
B. Preventable (PHC/PEC services) (5,6,7,8)	4	26.7%	4	28.6%	8	27.6%
C. Preventable (Ophthalmic services) (4,9,10)	8	53.3%	1	7.1%	9	31.0%
D. Avoidable (A+B+C)	15	100.0%	12	85.7%	27	93.1%
E. Posterior segment causes (8,9,10,11,12)	5	33.3%	3	21.4%	8	27.6%

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	0	0.0%	0	0.0%	0	0.0%
2. Aphakia uncorrected	3	2.5%	2	1.5%	5	2.0%
3. Cataract untreated	40	33.9%	58	43.0%	98	38.7%
4. Cataract surgical complications	12	10.2%	18	13.3%	30	11.9%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	27	22.9%	24	17.8%	51	20.2%
7. Phthisis	2	1.7%	7	5.2%	9	3.6%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	14	11.9%	4	3.0%	18	7.1%
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	18	15.3%	18	13.3%	36	14.2%
13. All other globe/CNS abnormalities	2	1.7%	4	3.0%	6	2.4%
Total	118	100.0%	135	100.0%	253	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	43	36.4%	60	44.4%	103	40.7%
B. Preventable (PHC/PEC services) (5,6,7,8)	29	24.6%	31	23.0%	60	23.7%
C. Preventable (Ophthalmic services) (4,9,10)	26	22.0%	22	16.3%	48	19.0%
D. Avoidable (A+B+C)	98	83.1%	113	83.7%	211	83.4%
E. Posterior segment causes (8,9,10,11,12)	32	27.1%	22	16.3%	54	21.3%

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%	0	0.0%	0	0.0%
2. Aphakia uncorrected	0	0.0%	0	0.0%	0	0.0%
3. Cataract untreated	12	85.7%	5	29.4%	17	54.8%
4. Cataract surgical complications	1	7.1%	11	64.7%	12	38.7%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	0	0.0%	1	5.9%	1	3.2%
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%	0	0.0%	0	0.0%
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	7.1%	0	0.0%	1	3.2%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	14	100.0%	17	100.0%	31	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	12	85.7%	5	29.4%	17	54.8%
B. Preventable (PHC/PEC services) (5,6,7,8)	0	0.0%	1	5.9%	1	3.2%
C. Preventable (Ophthalmic services) (4,9,10)	1	7.1%	11	64.7%	12	38.7%
D. Avoidable (A+B+C)	13	92.9%	17	100.0%	30	96.8%
E. Posterior segment causes (8,9,10,11,12)	1	7.1%	0	0.0%	1	3.2%

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	1	1.7%	0	0.0%	1	0.8%
2. Aphakia uncorrected	1	1.7%	1	1.5%	2	1.6%
3. Cataract untreated	41	70.7%	37	56.1%	78	62.9%
4. Cataract surgical complications	8	13.8%	24	36.4%	32	25.8%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	2	3.4%	2	3.0%	4	3.2%
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%	0	0.0%	0	0.0%
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	4	6.9%	1	1.5%	5	4.0%
13. All other globe/CNS abnormalities	1	1.7%	1	1.5%	2	1.6%
Total	58	100.0%	66	100.0%	124	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	43	74.1%	38	57.6%	81	65.3%
B. Preventable (PHC/PEC services) (5,6,7,8)	2	3.4%	2	3.0%	4	3.2%
C. Preventable (Ophthalmic services) (4,9,10)	8	13.8%	24	36.4%	32	25.8%
D. Avoidable (A+B+C)	53	91.4%	64	97.0%	117	94.4%
E. Posterior segment causes (8,9,10,11,12)	4	6.9%	1	1.5%	5	4.0%

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	9	9.2%	20	15.3%	29	12.7%
2. Aphakia uncorrected	1	1.0%	0	0.0%	1	0.4%
3. Cataract untreated	66	67.3%	78	59.5%	144	62.9%
4. Cataract surgical complications	17	17.3%	31	23.7%	48	21.0%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	3	3.1%	0	0.0%	3	1.3%
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	2	2.0%	1	0.8%	3	1.3%
13. All other globe/CNS abnormalities	0	0.0%	1	0.8%	1	0.4%
Total	98	100.0%	131	100.0%	229	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	76	77.6%	98	74.8%	174	76.0%
B. Preventable (PHC/PEC services) (5,6,7,8)	0	0.0%	0	0.0%	0	0.0%
C. Preventable (Ophthalmic services) (4,9,10)	20	20.4%	31	23.7%	51	22.3%
D. Avoidable (A+B+C)	96	98.0%	129	98.5%	225	98.3%
E. Posterior segment causes (8,9,10,11,12)	5	5.1%	1	0.8%	6	2.6%

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	41	14.2%	54	15.0%	95	14.7%
2. Aphakia uncorrected	0	0.0%	0	0.0%	0	0.0%
3. Cataract untreated	179	61.9%	196	54.6%	375	57.9%
4. Cataract surgical complications	58	20.1%	101	28.1%	159	24.5%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	3	1.0%	3	0.8%	6	0.9%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	4	1.4%	0	0.0%	4	0.6%
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	4	1.4%	4	1.1%	8	1.2%
13. All other globe/CNS abnormalities	0	0.0%	1	0.3%	1	0.2%
Total	289	100.0%	359	100.0%	648	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	220	76.1%	250	69.6%	470	72.5%
B. Preventable (PHC/PEC services) (5,6,7,8)	3	1.0%	3	0.8%	6	0.9%
C. Preventable (Ophthalmic services) (4,9,10)	62	21.5%	101	28.1%	163	25.2%
D. Avoidable (A+B+C)	285	98.6%	354	98.6%	639	98.6%
E. Posterior segment causes (8,9,10,11,12)	8	2.8%	4	1.1%	12	1.9%

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	107	66.5%	186	75.0%	293	71.6%
2. Aphakia uncorrected	0	0.0%	1	0.4%	1	0.2%
3. Cataract untreated	41	25.5%	48	19.4%	89	21.8%
4. Cataract surgical complications	12	7.5%	13	5.2%	25	6.1%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	1	0.6%	0	0.0%	1	0.2%
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%	0	0.0%	0	0.0%
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	0	0.0%	0	0.0%	0	0.0%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	161	100.0%	248	100.0%	409	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	148	91.9%	235	94.8%	383	93.6%
B. Preventable (PHC/PEC services) (5,6,7,8)	1	0.6%	0	0.0%	1	0.2%
C. Preventable (Ophthalmic services) (4,9,10)	12	7.5%	13	5.2%	25	6.1%
D. Avoidable (A+B+C)	161	100.0%	248	100.0%	409	100.0%
E. Posterior segment causes (8,9,10,11,12)	0	0.0%	0	0.0%	0	0.0%

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	241	71.1%	429	77.0%	670	74.8%
2. Aphakia uncorrected	0	0.0%	0	0.0%	0	0.0%
3. Cataract untreated	65	19.2%	80	14.4%	145	16.2%
4. Cataract surgical complications	31	9.1%	46	8.3%	77	8.6%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	1	0.3%	2	0.4%	3	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	0	0.0%	0	0.0%	0	0.0%
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	0	0.0%	0	0.0%	0	0.0%
13. All other globe/CNS abnormalities	1	0.3%	0	0.0%	1	0.1%
Total	339	100.0%	557	100.0%	896	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	306	90.3%	509	91.4%	815	91.0%
B. Preventable (PHC/PEC services) (5,6,7,8)	1	0.3%	2	0.4%	3	0.3%
C. Preventable (Ophthalmic services) (4,9,10)	31	9.1%	46	8.3%	77	8.6%
D. Avoidable (A+B+C)	338	99.7%	557	100.0%	895	99.9%
E. Posterior segment causes (8,9,10,11,12)	0	0.0%	0	0.0%	0	0.0%

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	4	0.3% (0.0-0.7)	1	0.1% (-0.1-0.2)	5	0.2% (0.0-0.3)
Unilateral cataract	32	2.7% (1.9-3.6)	50	3.2% (2.3-4.0)	82	3.0% (2.3-3.6)
Cataract eyes	40	1.7% (1.2-2.2)	52	1.7% (1.2-2.1)	92	1.7% (1.3-2.0)
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	9	0.8% (0.2-1.3)	4	0.3% (0.0-0.5)	13	0.5% (0.2-0.7)
Unilateral cataract	40	3.4% (3.7-6.5)	72	4.6% (3.7-5.6)	112	4.1% (4.0-5.7)
Cataract eyes	58	2.5% (1.7-3.2)	80	2.5% (2.0-3.1)	138	2.5% (2.1-3.0)
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	38	3.2% (2.3-4.2)	40	2.5% (1.8-3.3)	78	2.8% (2.3-3.4)
Unilateral cataract	106	9.0% (7.4-10.6)	120	7.6% (6.2-9.0)	226	8.2% (7.1-9.4)
Cataract eyes	182	7.7% (6.5-9.0)	200	6.4% (5.3-7.4)	382	6.9% (6.1-7.8)
Cataract and VA<6/12 with best correction or pinhole						
Bilateral cataract	94	8.0% (6.4-9.6)	101	6.4% (5.1-7.7)	195	7.1% (6.0-8.2)
Unilateral cataract	141	12.0% (9.8-14.2)	171	10.9% (9.6-12.1)	312	11.3% (10.1-12.6)
Cataract eyes	329	14.0% (12.0-16.0)	373	11.8% (10.4-13.3)	702	12.8% (11.5-14.1)

13. Sample prevalence of (pseudo)aphakia

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Bilateral (pseudo)aphakia	163	13.9% (11.6-16.1)	258	16.4% (13.2-19.6)	421	15.3% (13.0-17.6)
Unilateral (pseudo)aphakia	141	12.0% (10.0-14.0)	166	10.5% (9.1-11.9)	307	11.2% (9.9-12.5)
(Pseudo)aphakic eyes	467	19.8% (17.4-22.2)	682	21.7% (18.6-24.7)	1,149	20.9% (18.6-23.1)

14. Cataract Surgical Coverage

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Cataract Surgical Coverage (eyes) - percentage						
VA < 3/60	92.1		92.9		92.6	
VA < 6/60	89.0		89.5		89.3	
VA < 6/18	72.0		77.3		75.1	
Cataract Surgical Coverage (persons) - percentage						
VA < 3/60	97.8		99.7		98.9	
VA < 6/60	95.3		98.7		97.4	
VA < 6/18	84.5		88.9		87.1	

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

	Males		Females		Total	
	n	%	n	%	n	%
First eyes	304	65.1	424	62.2	728	63.4
Second eyes	163	34.9	258	37.8	421	36.6

16. Uncorrected refractive error and uncorrected presbyopia

	Males		Females		Total	
	n	%	n	%	n	%
Total refractive errors	245	20.8	312	19.8	557	20.2
Uncorrected refractive errors	117	9.9	207	13.1	324	11.8
Uncorrected presbyopia	900	76.5	1,341	85.1	2,241	81.4

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

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59	2	0.3	2	0.3	4	0.3
60 - 69	0	0.0	5	1.0	5	0.6
70 - 79	9	5.9	7	3.7	16	4.7
80+	4	8.2	7	12.1	11	10.3
Total	15	1.3	21	1.3	36	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%	12	57.1%	19	52.8%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	2	13.3%	5	23.8%	7	19.4%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	3	20.0%	1	4.8%	4	11.1%
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	3	20.0%	2	9.5%	5	13.9%
13. All other globe/CNS abnormalities	0	0.0%	1	4.8%	1	2.8%
Total	15	100.0%	21	100.0%	36	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)	2	13.3%	5	23.8%	7	19.4%
C. Preventable (Ophthalmic services) (4,9,10)	10	66.7%	13	61.9%	23	63.9%
D. Avoidable (A+B+C)	12	80.0%	18	85.7%	30	83.3%
E. Posterior segment causes (8,9,10,11,12)	6	40.0%	3	14.3%	9	25.0%

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+	6	40.0	7	50.0	13	44.8
BCVA<6/60 - 3/60	2	14.3	6	35.3	8	25.8
BCVA<6/18 - 6/60	7	7.1	8	6.1	15	6.6
Total	15	11.8	21	13.0	36	12.5

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

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

Date and time of report: 03-Mar-16 11:44:40AM

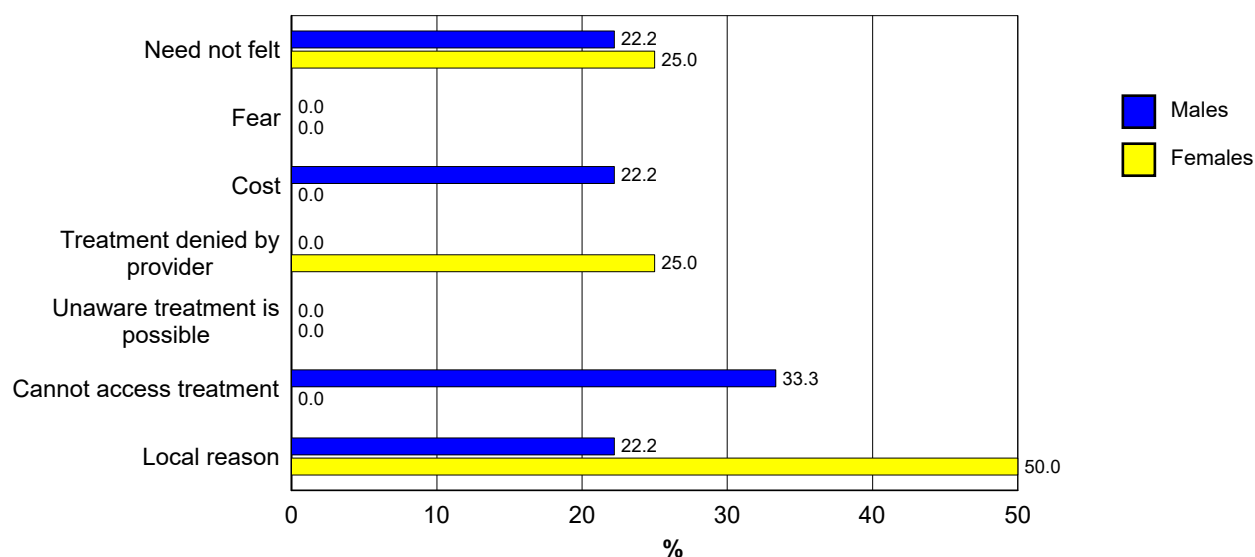
This report is for the survey area: KHEDA

Year and month when survey was conducted: 2016- 2 until 2016- 2

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.

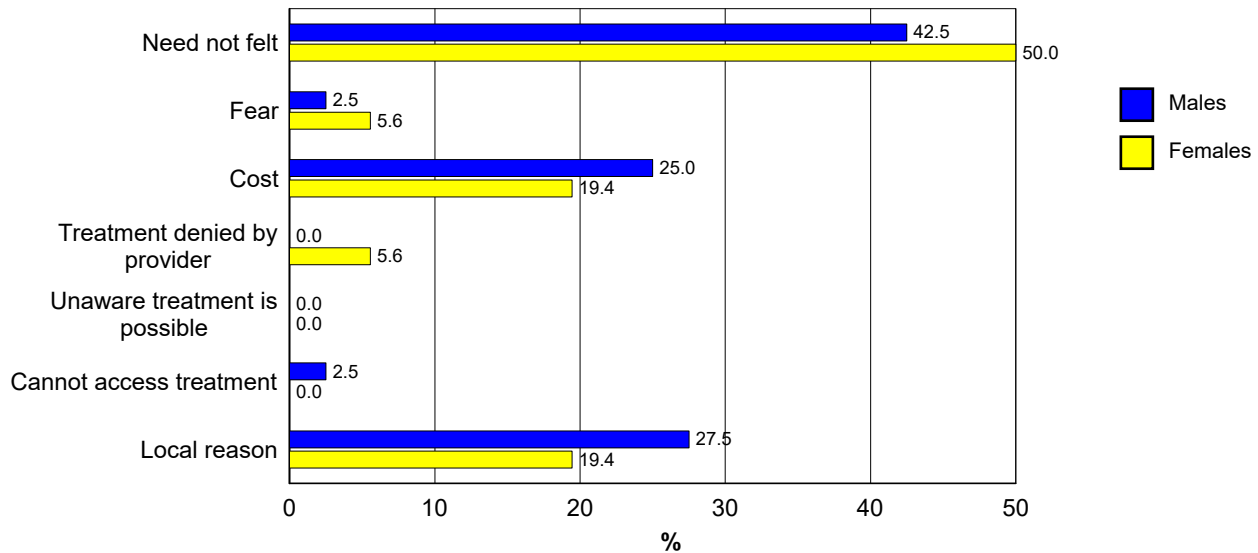
1. Barriers to cataract surgery in sample (bilateral BCVA<6/60 due to cataract)

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	2	22.2%	1	25.0%	3	23.1%
Fear	0	0.0%	0	0.0%	0	0.0%
Cost	2	22.2%	0	0.0%	2	15.4%
Treatment denied by provider	0	0.0%	1	25.0%	1	7.7%
Unaware treatment is possible	0	0.0%	0	0.0%	0	0.0%
Cannot access treatment	3	33.3%	0	0.0%	3	23.1%
Local reason	2	22.2%	2	50.0%	4	30.8%
Total	9	100.0%	4	100.0%	13	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	17	42.5%	36	50.0%	53	47.3%
Fear	1	2.5%	4	5.6%	5	4.5%
Cost	10	25.0%	14	19.4%	24	21.4%
Treatment denied by provider	0	0.0%	4	5.6%	4	3.6%
Unaware treatment is possible	0	0.0%	0	0.0%	0	0.0%
Cannot access treatment	1	2.5%	0	0.0%	1	0.9%
Local reason	11	27.5%	14	19.4%	25	22.3%
Total	40	100.0%	72	100.0%	112	100.0%



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

VISUAL OUTCOME AFTER CATARACT SURGERY (LONG-TERM OUTCOME)

Date and time of report: 03-Mar-16 11:45:10AM

This report is for the survey area: KHEDA

Year and month when survey was conducted: 2016- 2 until 2016- 2

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	3	6.1%	596	54.2%	0	0.0%	599	52.1%
Good: can see 6/18	1	2.0%	231	21.0%	0	0.0%	232	20.2%
Borderline: can see 6/60	13	26.5%	191	17.4%	0	0.0%	204	17.8%
Poor: cannot see 6/60	32	65.3%	82	7.5%	0	0.0%	114	9.9%
Total	49	100.0%	1,100	100.0%	0	0.0%	1,149	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	3	6.1%	785	71.4%	0	0.0%	788	68.6%
Good: can see 6/18	5	10.2%	152	13.8%	0	0.0%	157	13.7%
Borderline: can see 6/60	16	32.7%	93	8.5%	0	0.0%	109	9.5%
Poor: cannot see 6/60	25	51.0%	70	6.4%	0	0.0%	95	8.3%
Total	49	100.0%	1,100	100.0%	0	0.0%	1,149	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	369	60.5%	144	48.3%	86	35.7%	599	52.1%
Good: can see 6/18	119	19.5%	64	21.5%	49	20.3%	232	20.2%
Borderline: can see 6/60	86	14.1%	61	20.5%	57	23.7%	204	17.8%
Poor: cannot see 6/60	36	5.9%	29	9.7%	49	20.3%	114	9.9%
Total	610	100.0%	298	100.0%	241	100.0%	1,149	100.0%

4. Age at time of surgery in males and females

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
1 - 29	0	0.0%	0	0.0%	0	0.0%
30 - 39	2	0.4%	1	0.1%	3	0.3%
40 - 49	21	4.5%	26	3.8%	47	4.1%
50 - 59	148	31.7%	219	32.1%	367	31.9%
60 - 69	182	39.0%	304	44.6%	486	42.3%
70 - 79	95	20.3%	115	16.9%	210	18.3%
80+	19	4.1%	17	2.5%	36	3.1%
Total	467	100.0%	682	100.0%	1,149	100.0%

5. Place of surgery by sex

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Government Hosp.	85	18.2	90	13.2	175	15.2
Voluntary/charitable hospital	310	66.4	495	72.6	805	70.1
Private hospital	18	3.9	29	4.3	47	4.1
Eyecamp	54	11.6	68	10.0	122	10.6
Total	467	100.0	682	100.0	1,149	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	81	46.3	445	55.3	35	74.5	38	31.1	599	52.1
Good: can see 6/18	33	18.9	165	20.5	4	8.5	30	24.6	232	20.2
Borderline: can see 6/60	38	21.7	135	16.8	4	8.5	27	22.1	204	17.8
Poor: cannot see 6/60	23	13.1	60	7.5	4	8.5	27	22.1	114	9.9
Total	175	100.0	805	100.0	47	100.0	122	100.0	1,149	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	599	100.0	599	52.1
Good: can see 6/18	0	0.0	77	25.8	155	79.5	0	0.0	0	0.0	232	20.2
Borderline: can see 6/60	11	20.0	159	53.4	34	17.4	0	0.0	0	0.0	204	17.8
Poor: cannot see 6/60	44	80.0	62	20.8	6	3.1	2	100.0	0	0.0	114	9.9
Total	55	100.0	298	100.0	195	100.0	2	100.0	599	100.0	1,149	100.0

8. Proportion and type of surgery

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Non-IOL	21	4.5	28	4.1	49	4.3
IOL	446	95.5	654	95.9	1,100	95.7
Couching	0	0.0	0	0.0	0	0.0
Total	467	100.0	682	100.0	1,149	100.0

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

INDICATORS BY SEX AND BY AGE GROUP - FINDINGS FROM SAMPLE

Date and time of report:

03-Mar-16

11:47:35AM

This report is for the survey area:

KHEDA

Year and month when survey was conducted:

2016- 2 until 2016- 2

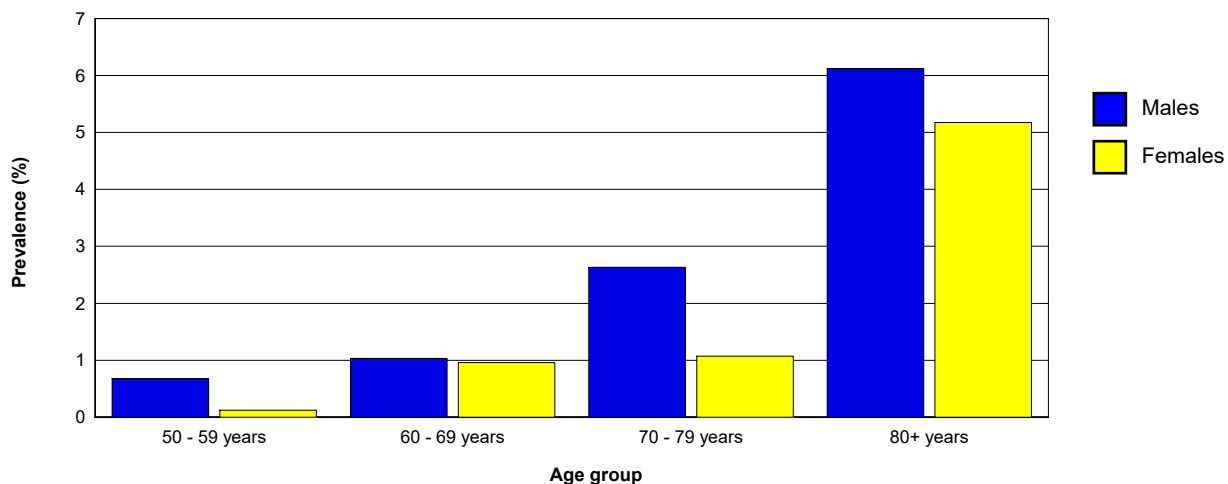
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals 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	588	50.0%	808	51.3%	1,396	50.6%
60 - 69 years	388	33.0%	522	33.1%	910	33.1%
70 - 79 years	152	12.9%	187	11.9%	339	12.4%
80+ years	49	4.2%	58	3.7%	107	3.9%
Total	1,177	100.0%	1,575	100.0%	2,752	100.0%

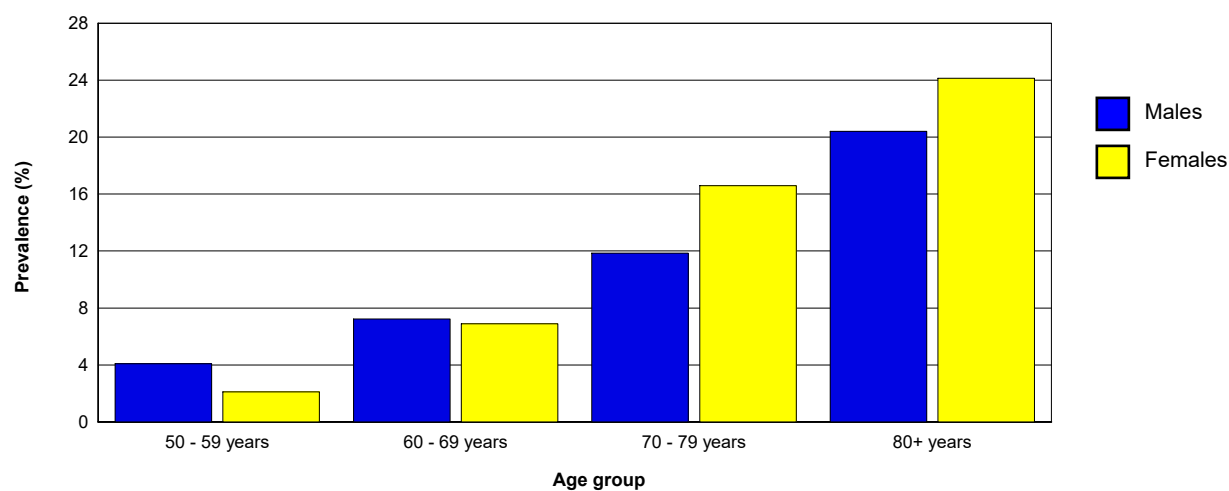
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	4	0.7%	1	0.1%	5	0.4%
60 - 69 years	4	1.0%	5	1.0%	9	1.0%
70 - 79 years	4	2.6%	2	1.1%	6	1.8%
80+ years	3	6.1%	3	5.2%	6	5.6%
Total	15	1.3%	11	0.7%	26	0.9%



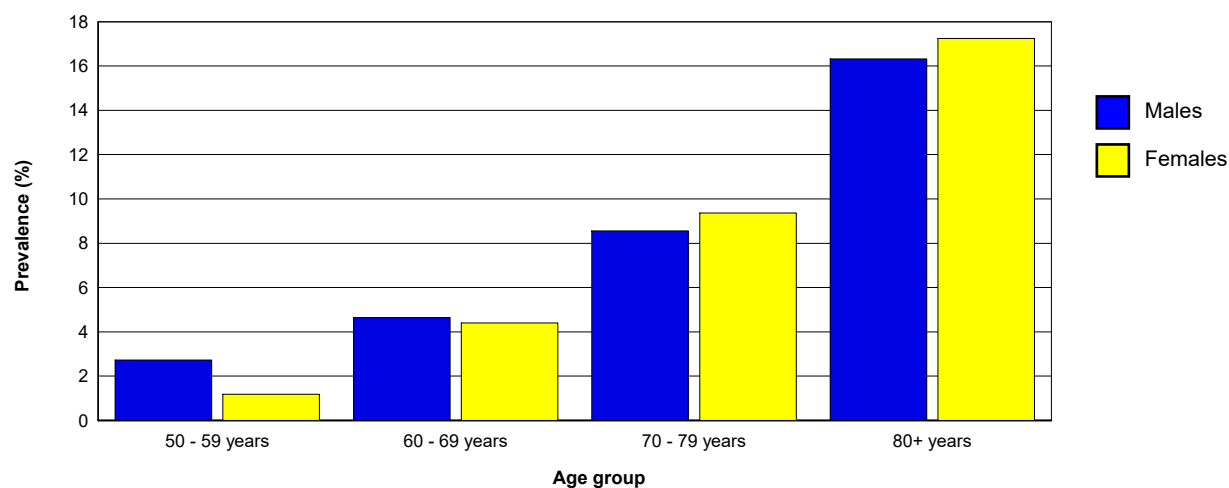
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	24	4.1%	17	2.1%	41	2.9%
60 - 69 years	28	7.2%	36	6.9%	64	7.0%
70 - 79 years	18	11.8%	31	16.6%	49	14.5%
80+ years	10	20.4%	14	24.1%	24	22.4%
Total	80	6.8%	98	6.2%	178	6.5%



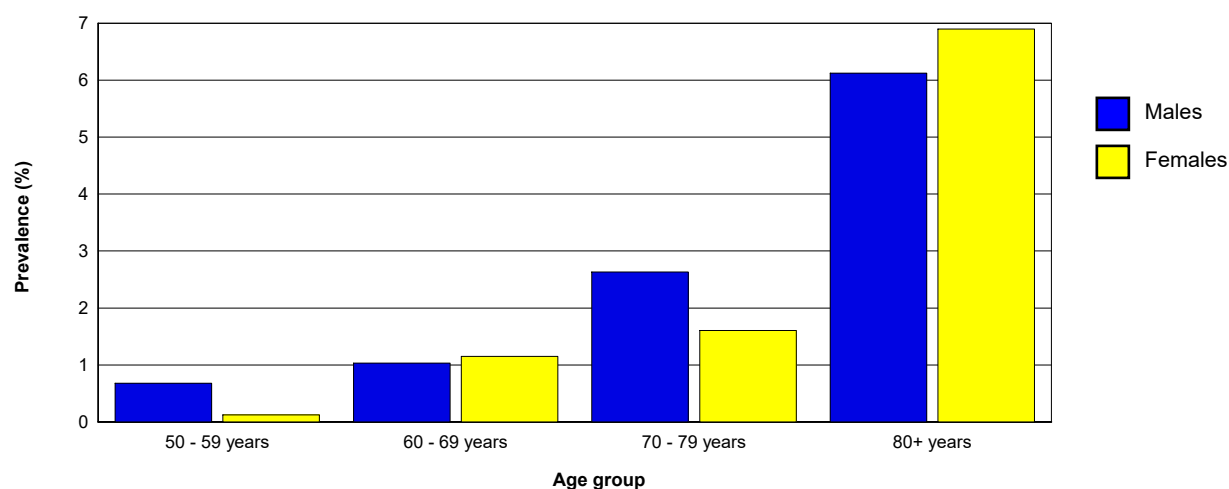
4. Prevalence of blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	32	2.7%	19	1.2%	51	1.8%
60 - 69 years	36	4.6%	46	4.4%	82	4.5%
70 - 79 years	26	8.6%	35	9.4%	61	9.0%
80+ years	16	16.3%	20	17.2%	36	16.8%
Total	110	4.7%	120	3.8%	230	4.2%



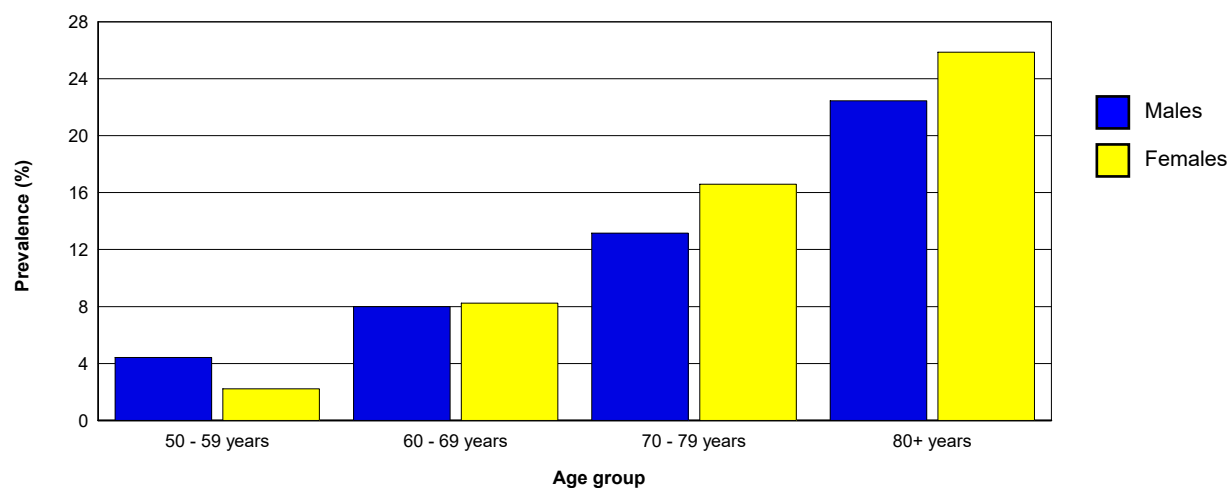
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	4	0.7%	1	0.1%	5	0.4%
60 - 69 years	4	1.0%	6	1.1%	10	1.1%
70 - 79 years	4	2.6%	3	1.6%	7	2.1%
80+ years	3	6.1%	4	6.9%	7	6.5%
Total	15	1.3%	14	0.9%	29	1.1%



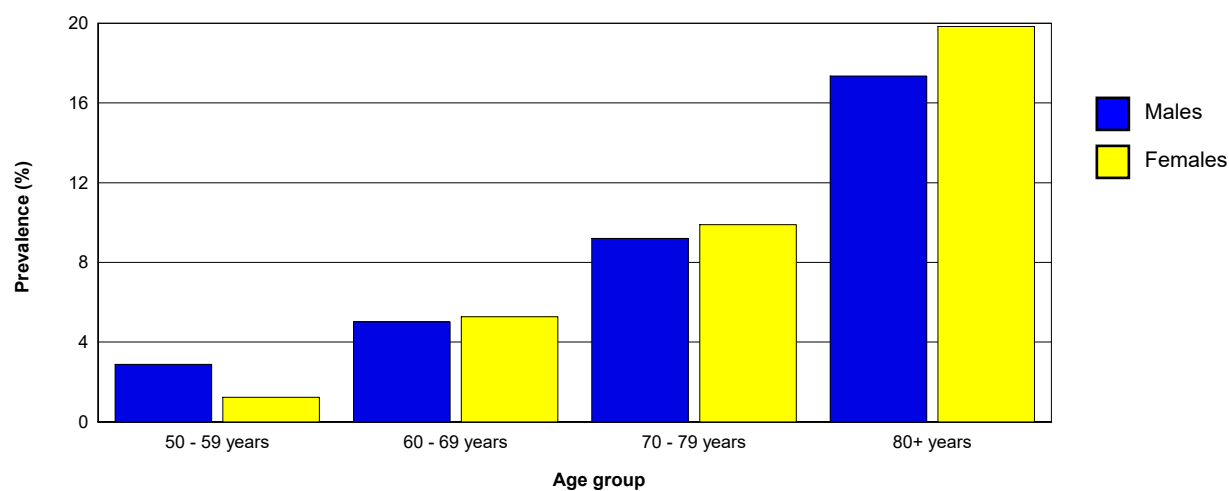
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	26	4.4%	18	2.2%	44	3.2%
60 - 69 years	31	8.0%	43	8.2%	74	8.1%
70 - 79 years	20	13.2%	31	16.6%	51	15.0%
80+ years	11	22.4%	15	25.9%	26	24.3%
Total	88	7.5%	107	6.8%	195	7.1%



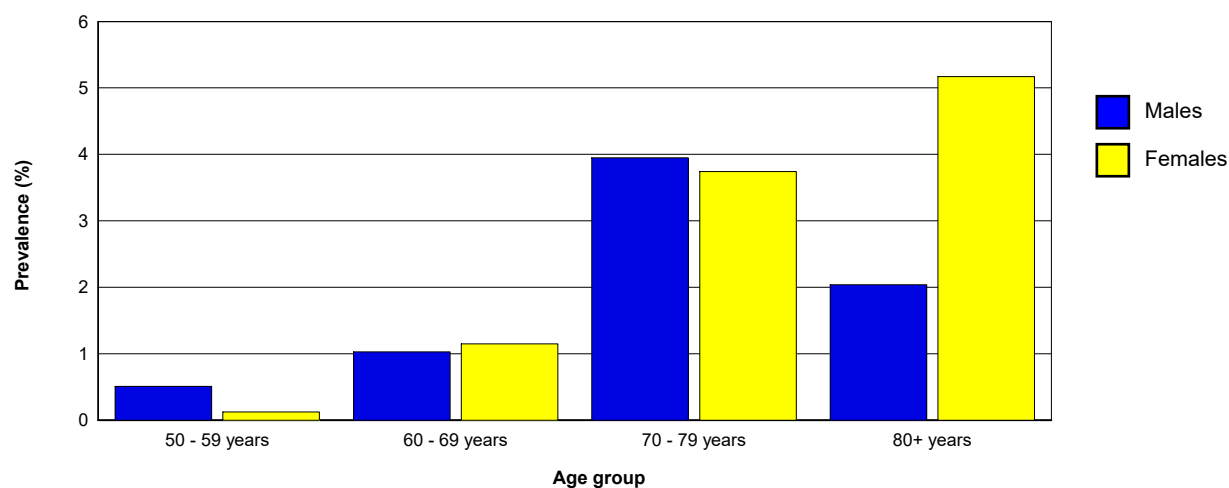
7. Prevalence of blind eyes - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	34	2.9%	20	1.2%	54	1.9%
60 - 69 years	39	5.0%	55	5.3%	94	5.2%
70 - 79 years	28	9.2%	37	9.9%	65	9.6%
80+ years	17	17.3%	23	19.8%	40	18.7%
Total	118	5.0%	135	4.3%	253	4.6%



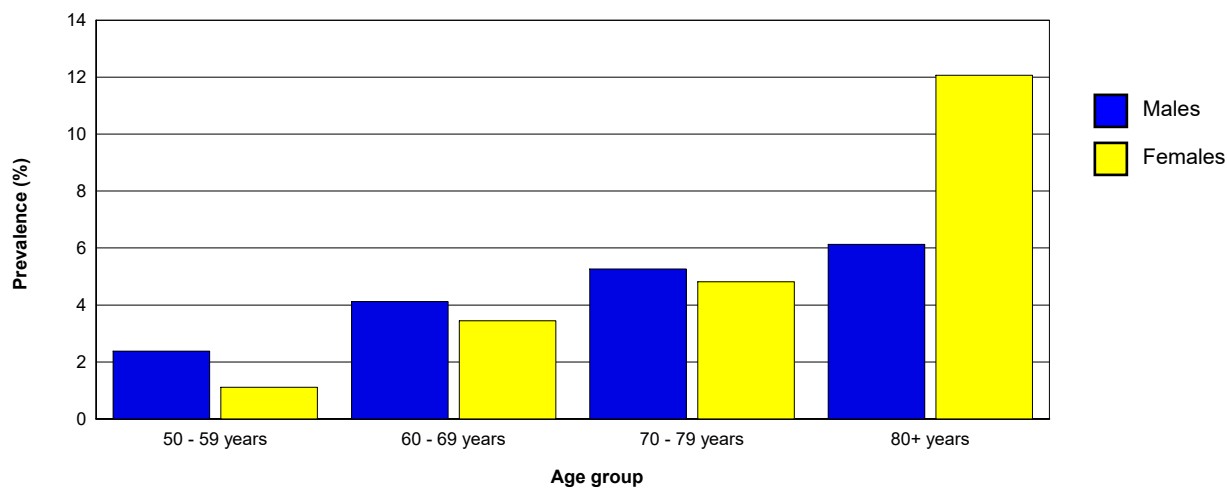
8. Prevalence of people with bilateral severe visual impairment - VA<6/60-3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.5%	1	0.1%	4	0.3%
60 - 69 years	4	1.0%	6	1.1%	10	1.1%
70 - 79 years	6	3.9%	7	3.7%	13	3.8%
80+ years	1	2.0%	3	5.2%	4	3.7%
Total	14	1.2%	17	1.1%	31	1.1%



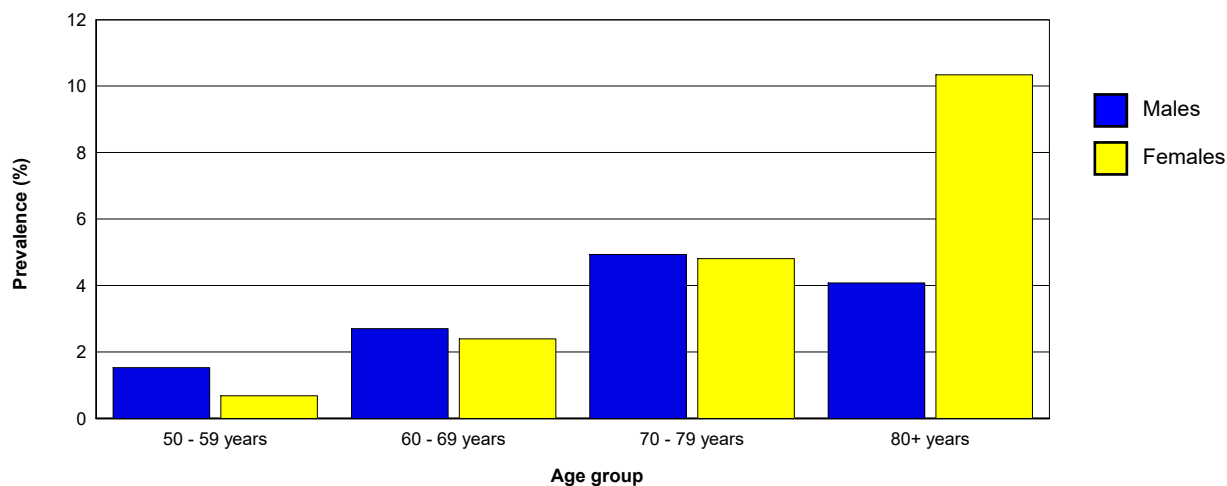
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	14	2.4%	9	1.1%	23	1.6%
60 - 69 years	16	4.1%	18	3.4%	34	3.7%
70 - 79 years	8	5.3%	9	4.8%	17	5.0%
80+ years	3	6.1%	7	12.1%	10	9.3%
Total	41	3.5%	43	2.7%	84	3.1%



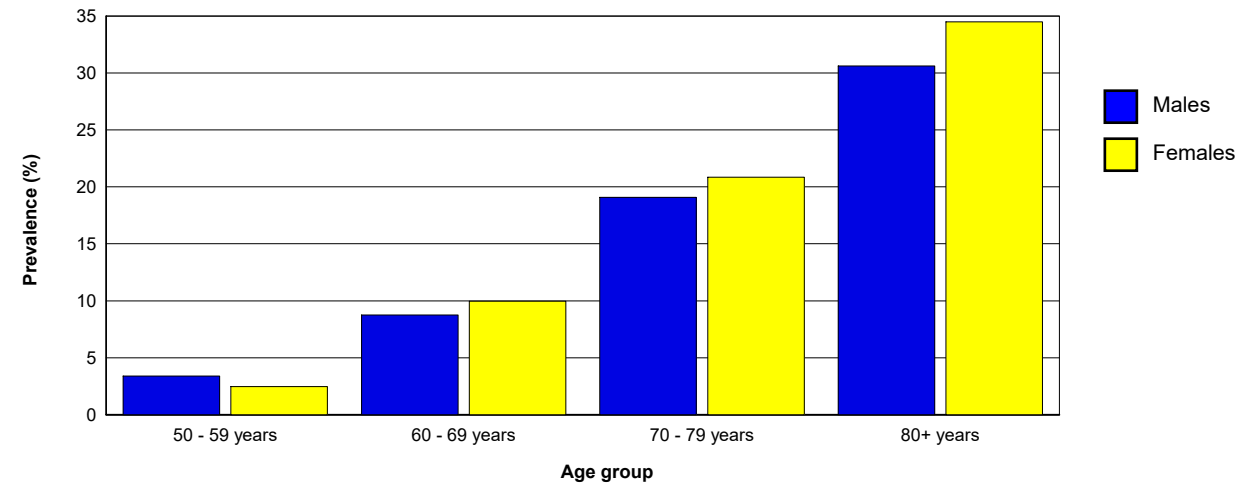
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	18	1.5%	11	0.7%	29	1.0%
60 - 69 years	21	2.7%	25	2.4%	46	2.5%
70 - 79 years	15	4.9%	18	4.8%	33	4.9%
80+ years	4	4.1%	12	10.3%	16	7.5%
Total	58	2.5%	66	2.1%	124	2.3%



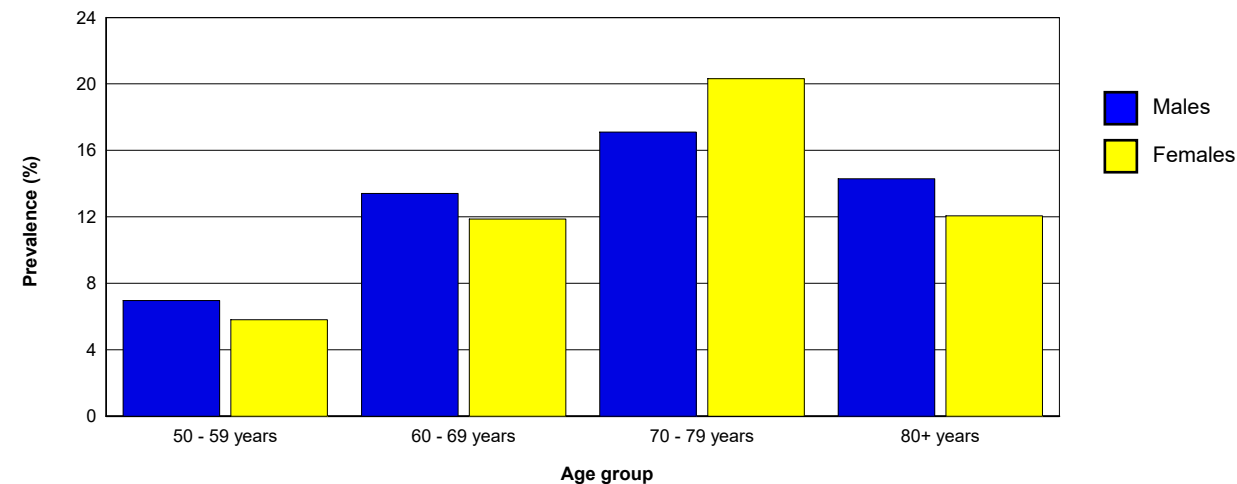
11. Prevalence of people with bilateral moderate visual impairment - VA <6/18-6/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	20	3.4%	20	2.5%	40	2.9%
60 - 69 years	34	8.8%	52	10.0%	86	9.5%
70 - 79 years	29	19.1%	39	20.9%	68	20.1%
80+ years	15	30.6%	20	34.5%	35	32.7%
Total	98	8.3%	131	8.3%	229	8.3%



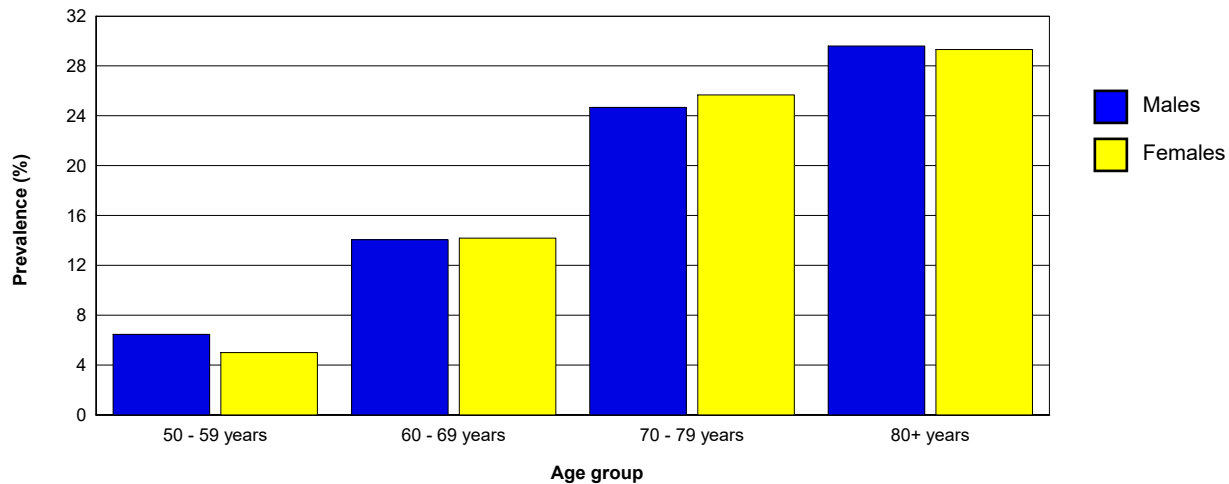
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	41	7.0%	47	5.8%	88	6.3%
60 - 69 years	52	13.4%	62	11.9%	114	12.5%
70 - 79 years	26	17.1%	38	20.3%	64	18.9%
80+ years	7	14.3%	7	12.1%	14	13.1%
Total	126	10.7%	154	9.8%	280	10.2%



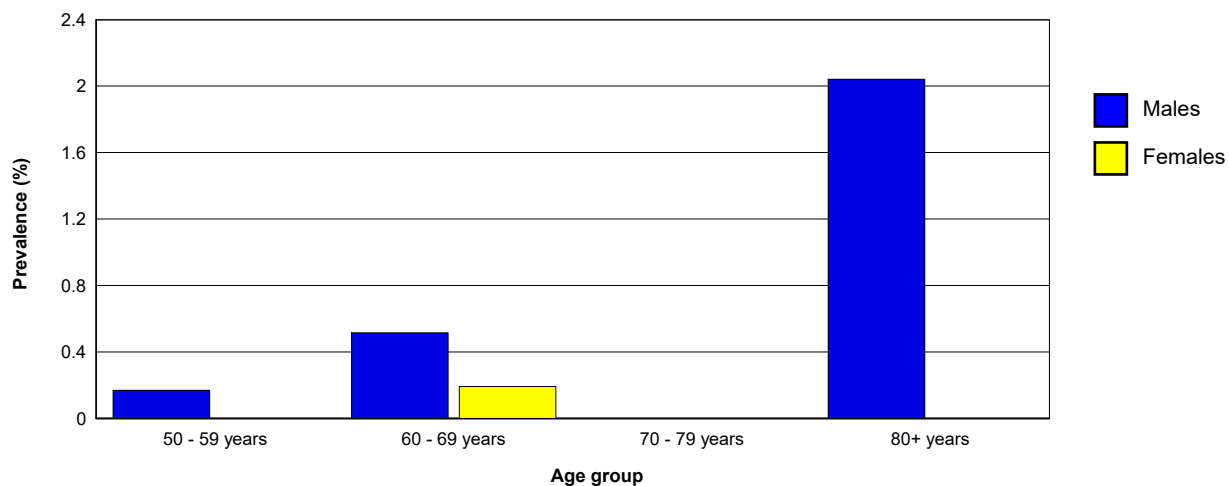
13. Prevalence of MVI eyes - VA<6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	76	6.5%	81	5.0%	157	5.6%
60 - 69 years	109	14.0%	148	14.2%	257	14.1%
70 - 79 years	75	24.7%	96	25.7%	171	25.2%
80+ years	29	29.6%	34	29.3%	63	29.4%
Total	289	12.3%	359	11.4%	648	11.8%



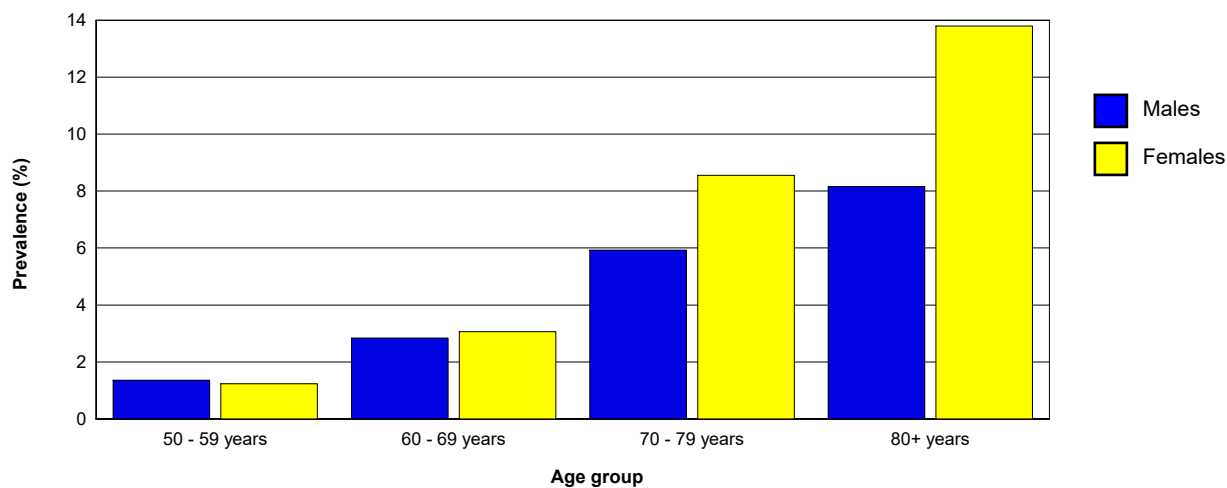
14. Prevalence of people bilateral blind due to cataract - VA<3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2%	0	0.0%	1	0.1%
60 - 69 years	2	0.5%	1	0.2%	3	0.3%
70 - 79 years	0	0.0%	0	0.0%	0	0.0%
80+ years	1	2.0%	0	0.0%	1	0.9%
Total	4	0.3%	1	0.1%	5	0.2%



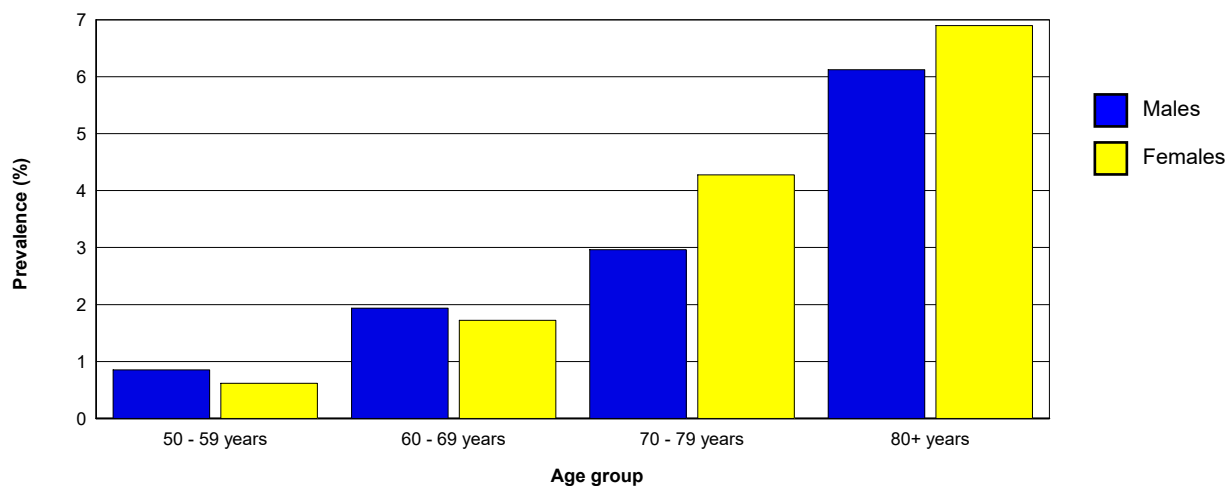
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	8	1.4%	10	1.2%	18	1.3%
60 - 69 years	11	2.8%	16	3.1%	27	3.0%
70 - 79 years	9	5.9%	16	8.6%	25	7.4%
80+ years	4	8.2%	8	13.8%	12	11.2%
Total	32	2.7%	50	3.2%	82	3.0%



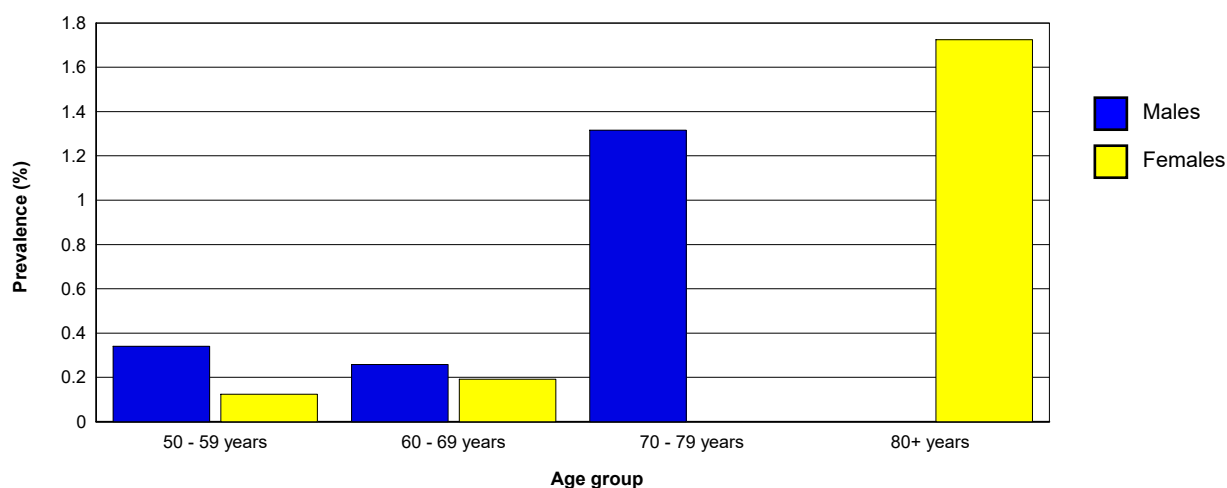
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	10	0.9%	10	0.6%	20	0.7%
60 - 69 years	15	1.9%	18	1.7%	33	1.8%
70 - 79 years	9	3.0%	16	4.3%	25	3.7%
80+ years	6	6.1%	8	6.9%	14	6.5%
Total	40	1.7%	52	1.7%	92	1.7%



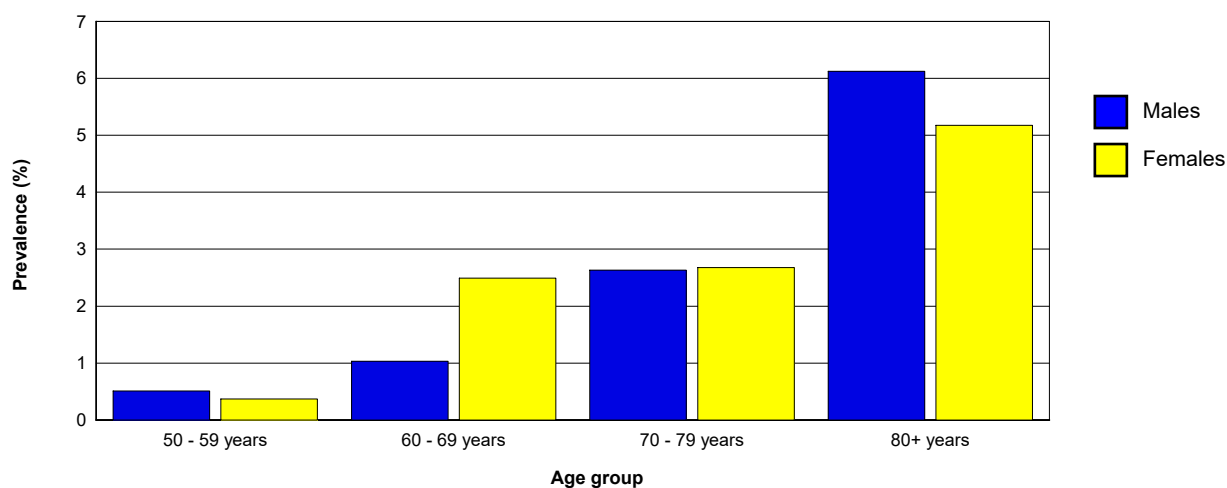
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	2	0.3%	1	0.1%	3	0.2%
60 - 69 years	1	0.3%	1	0.2%	2	0.2%
70 - 79 years	2	1.3%	0	0.0%	2	0.6%
80+ years	0	0.0%	1	1.7%	1	0.9%
Total	5	0.4%	3	0.2%	8	0.3%



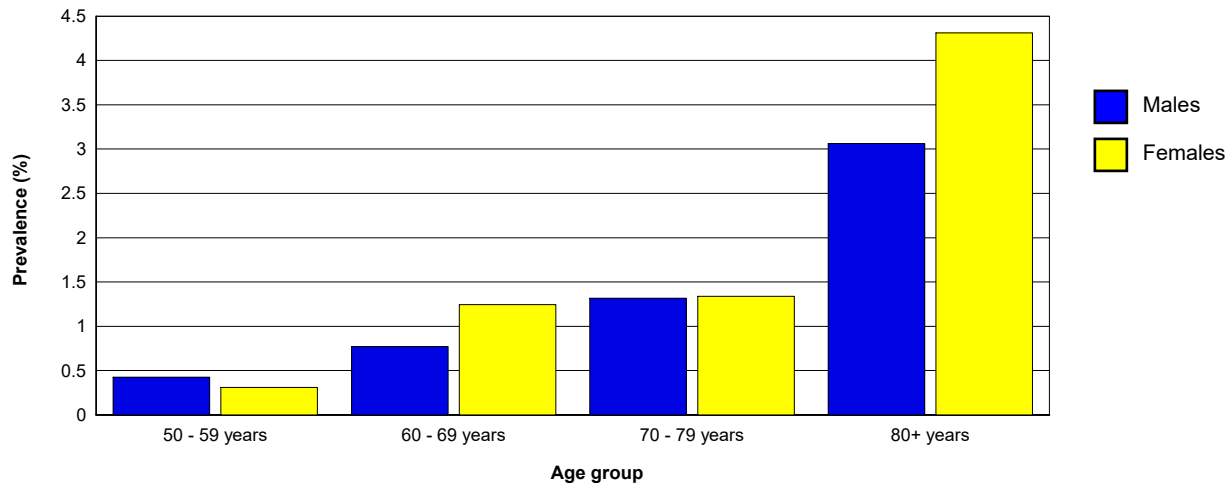
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA<6/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.5%	3	0.4%	6	0.4%
60 - 69 years	4	1.0%	13	2.5%	17	1.9%
70 - 79 years	4	2.6%	5	2.7%	9	2.7%
80+ years	3	6.1%	3	5.2%	6	5.6%
Total	14	1.2%	24	1.5%	38	1.4%



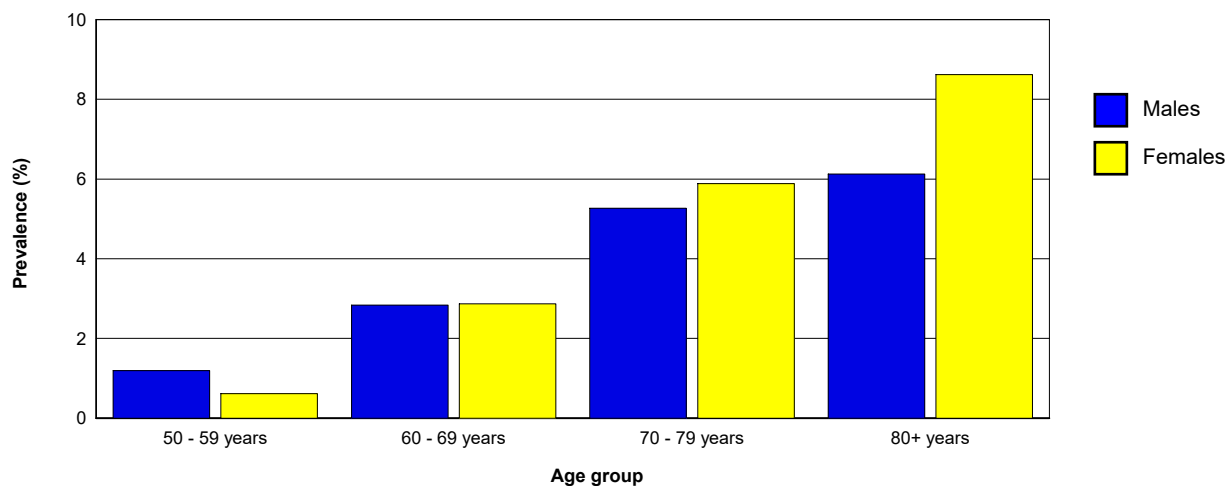
19. Prevalence of cataract SVI eyes - VA<6/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	5	0.4%	5	0.3%	10	0.4%
60 - 69 years	6	0.8%	13	1.2%	19	1.0%
70 - 79 years	4	1.3%	5	1.3%	9	1.3%
80+ years	3	3.1%	5	4.3%	8	3.7%
Total	18	0.8%	28	0.9%	46	0.8%



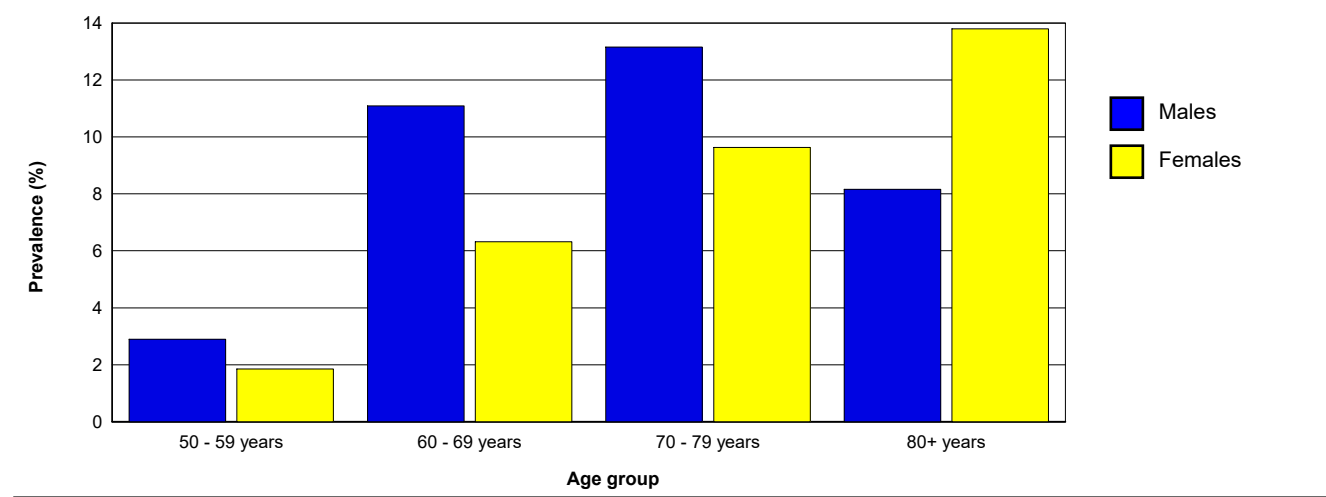
20. Prevalence of people with bilateral moderate visual impairment due to cataract - VA<6/18-6/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	7	1.2%	5	0.6%	12	0.9%
60 - 69 years	11	2.8%	15	2.9%	26	2.9%
70 - 79 years	8	5.3%	11	5.9%	19	5.6%
80+ years	3	6.1%	5	8.6%	8	7.5%
Total	29	2.5%	36	2.3%	65	2.4%



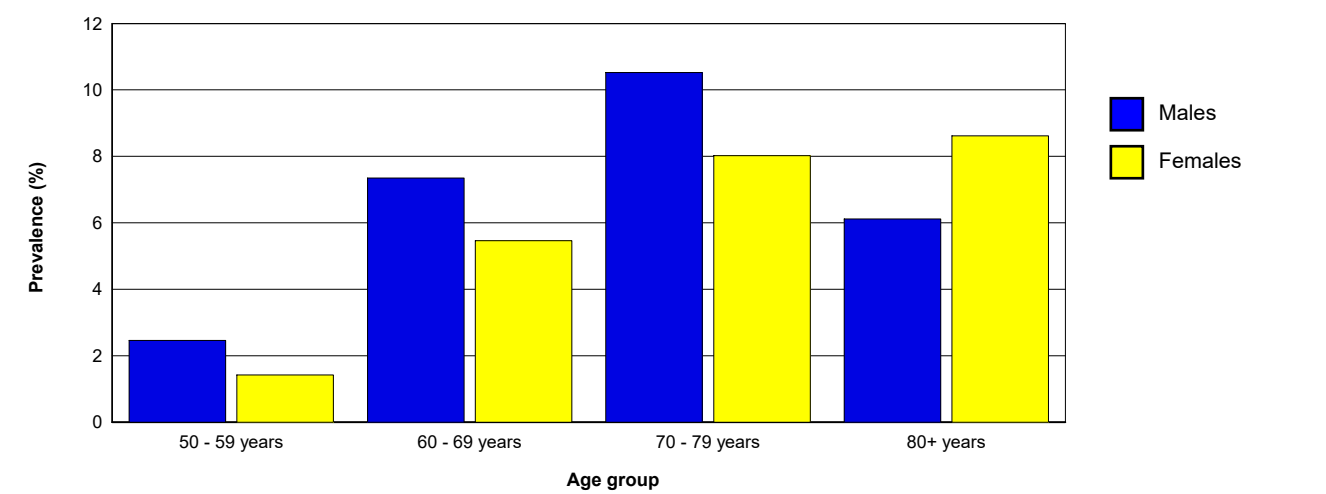
21. Prevalence of people with unilateral moderate visual impairment due to cataract - VA<6/18-6/60 best corrected

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	17	2.9%	15	1.9%	32	2.3%
60 - 69 years	43	11.1%	33	6.3%	76	8.4%
70 - 79 years	20	13.2%	18	9.6%	38	11.2%
80+ years	4	8.2%	8	13.8%	12	11.2%
Total	84	7.1%	74	4.7%	158	5.7%



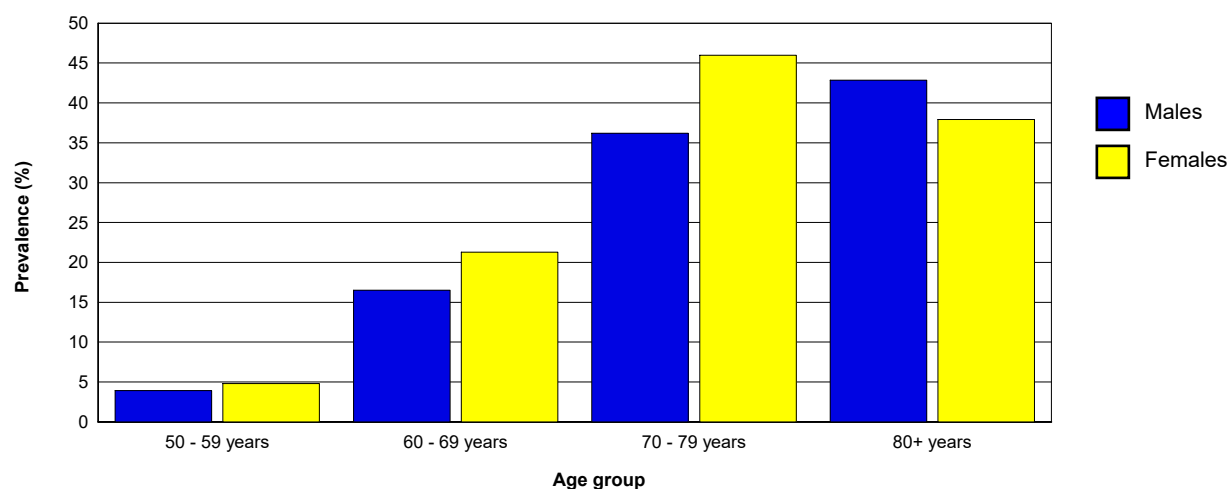
22. Prevalence of cataract MVI eyes - VA <6/18-6/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	29	2.5%	23	1.4%	52	1.9%
60 - 69 years	57	7.3%	57	5.5%	114	6.3%
70 - 79 years	32	10.5%	30	8.0%	62	9.1%
80+ years	6	6.1%	10	8.6%	16	7.5%
Total	124	5.3%	120	3.8%	244	4.4%



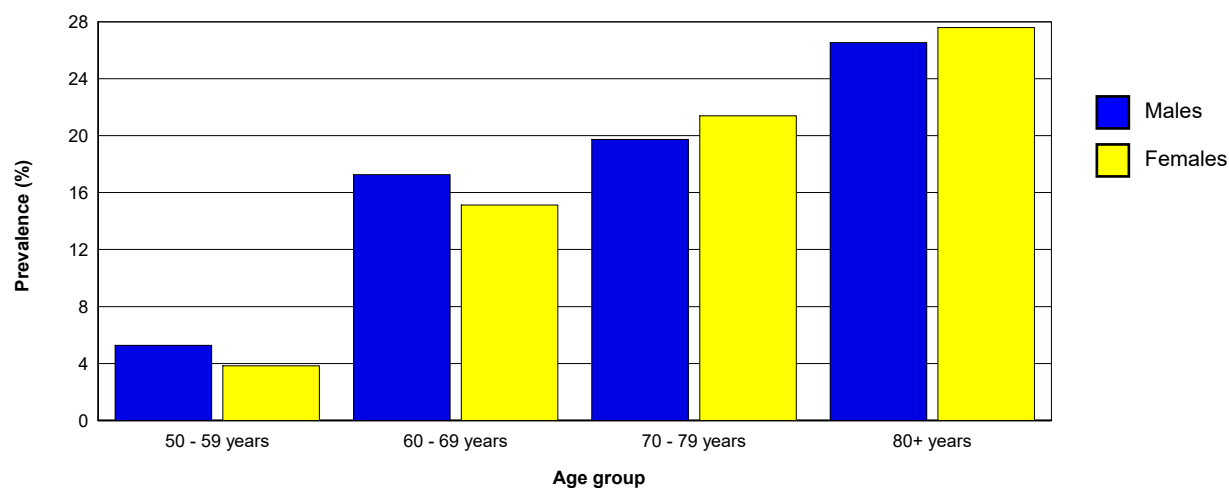
23. Prevalence of people with bilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	23	3.9%	39	4.8%	62	4.4%
60 - 69 years	64	16.5%	111	21.3%	175	19.2%
70 - 79 years	55	36.2%	86	46.0%	141	41.6%
80+ years	21	42.9%	22	37.9%	43	40.2%
Total	163	13.8%	258	16.4%	421	15.3%



24. Prevalence of people with unilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	31	5.3%	31	3.8%	62	4.4%
60 - 69 years	67	17.3%	79	15.1%	146	16.0%
70 - 79 years	30	19.7%	40	21.4%	70	20.6%
80+ years	13	26.5%	16	27.6%	29	27.1%
Total	141	12.0%	166	10.5%	307	11.2%



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

AGE AND SEX ADJUSTED PREVALENCE AND ESTIMATED NUMBERS

Date and time of report:

03-Mar-16

11:48:27AM

This report is for the survey area:

KHEDA

Year and month when survey was conducted:

2016- 2 until 2016- 2

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.

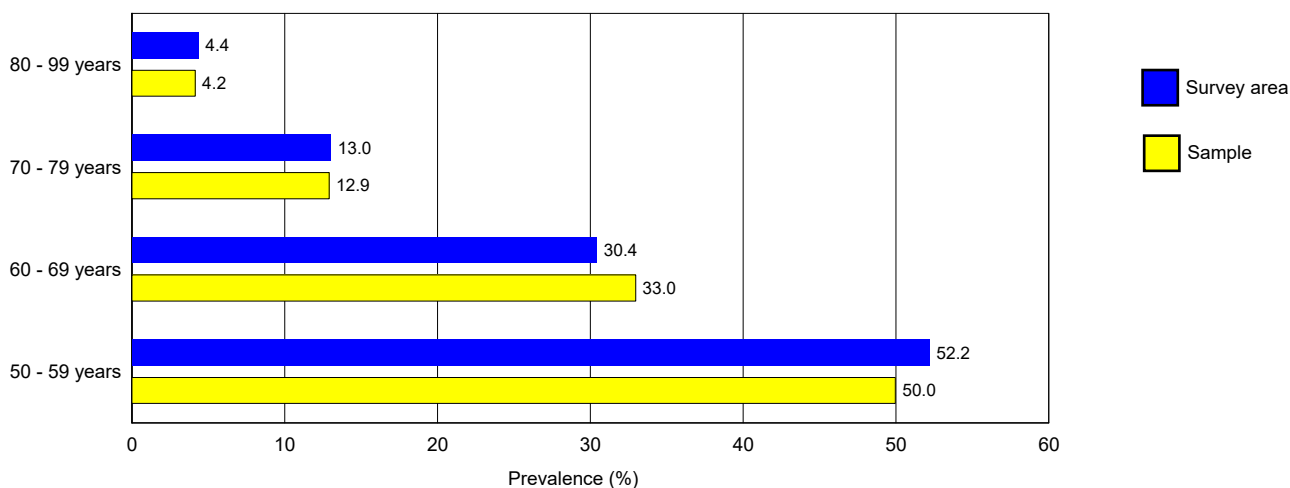
1. Age and sex distribution of people examined in the sample

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	588	50.0%	808	51.3%	1,396	50.7%
60 - 69 years	388	33.0%	522	33.1%	910	33.1%
70 - 79 years	152	12.9%	187	11.9%	339	12.3%
80 - 99 years	49	4.2%	58	3.7%	107	3.9%
Total	1,177	100.0%	1,575	100.0%	2,752	100.0%

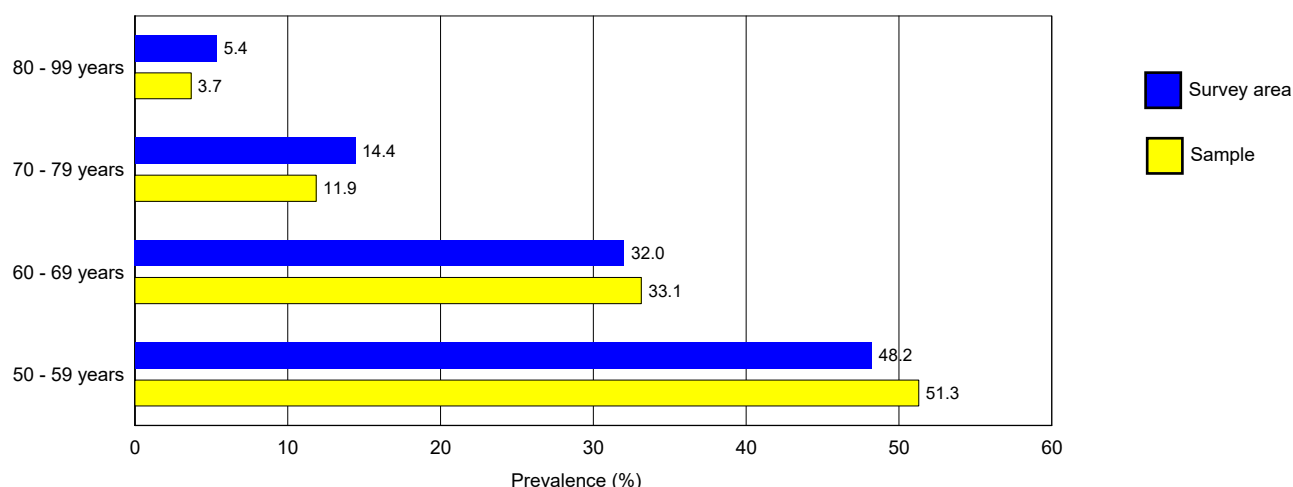
2. Total number of people aged 50+ in survey area

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	98,063	52.2%	96,801	48.2%	194,864	50.1%
60 - 69 years	57,157	30.4%	64,257	32.0%	121,414	31.2%
70 - 79 years	24,475	13.0%	28,956	14.4%	53,431	13.7%
80 - 99 years	8,178	4.4%	10,759	5.4%	18,937	4.9%
Total	187,873	100.0%	200,773	100.0%	388,646	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	2,401	1.3 (0.7 - 1.9)	1,602	0.8 (0.4 - 1.2)	4,003	1.0 (0.7 - 1.3)
All eyes	17,497	4.7 (3.7 - 5.6)	17,069	4.3 (3.6 - 4.9)	34,566	4.4 (3.9 - 5.0)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral cases	2,401	1.3 (0.7 - 1.9)	2,066	1.0 (0.6 - 1.5)	4,467	1.1 (0.8 - 1.5)
All eyes	18,761	5.0 (3.9 - 6.0)	19,162	4.8 (4.1 - 5.4)	37,923	4.9 (4.3 - 5.5)
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral cases	2,222	1.2 (0.3 - 2.1)	2,500	1.2 (0.7 - 1.8)	4,722	1.2 (0.7 - 1.7)
All eyes	9,179	2.4 (1.6 - 3.3)	9,408	2.3 (1.8 - 2.9)	18,587	2.4 (1.9 - 2.9)
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral cases	15,517	8.3 (6.6 - 9.9)	18,546	9.2 (7.6 - 10.9)	34,063	8.8 (7.6 - 10.0)
All eyes	45,649	12.1 (10.6 - 13.7)	49,095	12.2 (10.6 - 13.8)	94,744	12.2 (11.0 - 13.4)
Early visual impairment (EVI) - VA<6/12 - 6/18 in the better eye with available correction						
All bilateral cases	25,343	13.5 (10.9 - 16.0)	32,272	16.1 (13.3 - 18.8)	57,615	14.8 (12.6 - 17.1)
All eyes	53,376	14.2 (11.7 - 16.7)	71,440	17.8 (15.2 - 20.4)	124,816	16.1 (13.8 - 18.3)

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	2,401	1.3 (0.7 - 1.9)	2,066	1.0 (0.6 - 1.5)	4,467	1.1 (0.8 - 1.5)
All eyes	18,761	5.0 (3.9 - 6.0)	19,162	4.8 (4.1 - 5.4)	37,923	4.9 (4.3 - 5.5)
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	4,623	2.5 (1.5 - 3.4)	4,564	2.3 (1.5 - 3.0)	9,187	2.4 (1.8 - 2.9)
All eyes	27,940	7.4 (6.0 - 8.9)	28,571	7.1 (6.2 - 8.0)	56,511	7.3 (6.4 - 8.1)
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	20,141	10.7 (8.7 - 12.8)	23,110	11.5 (9.8 - 13.2)	43,251	11.1 (9.8 - 12.5)
All eyes	73,588	19.6 (17.3 - 21.9)	77,666	19.3 (17.3 - 21.4)	151,254	19.5 (17.8 - 21.1)
VA<6/12 in the better eye, with available correction (presenting VA)						
All bilateral cases	45,483	24.2 (21.1 - 27.3)	55,383	27.6 (23.9 - 31.2)	100,866	26.0 (22.9 - 29.0)
All eyes	126,963	33.8 (30.4 - 37.2)	149,106	37.1 (33.3 - 40.9)	276,069	35.5 (32.3 - 38.7)

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	629	0.3 (0.0 - 0.7)	123	0.1 (-0.1 - 0.2)	752	0.2 (0.0 - 0.3)
Unilateral cataract	5,071	2.7 (1.8 - 3.6)	7,130	3.6 (2.7 - 4.4)	12,201	3.1 (2.5 - 3.8)
Cataract eyes	6,328	1.7 (1.1 - 2.2)	7,376	1.8 (1.4 - 2.3)	13,704	1.8 (1.4 - 2.1)
Cataract and SVI - VA<6/60 - 3/60 in better eye with best correction or pinhole						
Bilateral cataract	803	0.4 (0.2 - 0.7)	429	0.2 (0.0 - 0.4)	1,232	0.3 (0.2 - 0.5)
Unilateral cataract	1,746	0.9 (0.3 - 1.5)	3,167	1.6 (1.0 - 2.1)	4,913	1.3 (0.8 - 1.7)
Cataract eyes	2,863	0.8 (0.3 - 1.2)	3,901	1.0 (0.7 - 1.3)	6,764	0.9 (0.6 - 1.1)
Cataract and Moderate VI (MVI) - VA<6/18 - 6/60 in better eye with best correction or pinhole						
Bilateral cataract	4,576	2.4 (1.8 - 3.1)	5,076	2.5 (1.8 - 3.2)	9,652	2.5 (2.0 - 2.9)
Unilateral cataract	11,645	6.2 (4.7 - 7.7)	8,125	4.0 (2.9 - 5.1)	19,770	5.1 (4.1 - 6.0)
Cataract eyes	19,387	5.2 (4.2 - 6.1)	16,272	4.1 (3.2 - 4.9)	35,659	4.6 (3.9 - 5.2)
Cataract and Early VI (EVI) - VA<6/12 - 6/18 in better eye with best correction or pinhole						
Bilateral cataract	8,773	2.3 (1.6 - 3.1)	8,276	2.1 (1.3 - 2.8)	17,049	2.2 (1.7 - 2.7)
Unilateral cataract	9,946	2.6 (0.9 - 4.4)	10,532	2.6 (1.3 - 3.9)	20,478	2.6 (1.6 - 3.7)
Cataract eyes	23,160	6.2 (4.9 - 7.4)	22,941	5.7 (4.8 - 6.7)	46,101	5.9 (5.1 - 6.7)

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	629	0.3 (0.0 - 0.7)	123	0.1 (-0.1 - 0.2)	752	0.2 (0.0 - 0.3)
Unilateral cataract	5,071	2.7 (1.8 - 3.6)	7,130	3.6 (2.7 - 4.4)	12,201	3.1 (2.5 - 3.8)
Cataract eyes	6,328	1.7 (1.1 - 2.2)	7,376	1.8 (1.4 - 2.3)	13,704	1.8 (1.4 - 2.1)
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	1,431	0.8 (0.3 - 1.2)	552	0.3 (0.1 - 0.5)	1,983	0.5 (0.3 - 0.7)
Unilateral cataract	6,817	3.6 (2.5 - 4.7)	10,297	5.1 (4.0 - 6.2)	17,114	4.4 (3.6 - 5.3)
Cataract eyes	9,191	2.4 (1.7 - 3.2)	11,277	2.8 (2.2 - 3.4)	20,468	2.6 (2.2 - 3.1)
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	6,008	3.2 (2.5 - 3.9)	5,628	2.8 (2.1 - 3.5)	11,636	3.0 (2.5 - 3.5)
Unilateral cataract	18,463	9.8 (7.9 - 11.7)	18,423	9.2 (7.4 - 11.0)	36,886	9.5 (8.0 - 10.9)
Cataract eyes	28,577	7.6 (6.3 - 8.9)	27,550	6.9 (5.8 - 8.0)	56,127	7.2 (6.4 - 8.0)
Cataract and VA<6/12 with best correction or pinhole						
Bilateral cataract	14,780	7.9 (6.8 - 8.9)	13,904	6.9 (6.0 - 7.9)	28,684	7.4 (6.7 - 8.1)
Unilateral cataract	28,409	15.1 (12.0 - 18.2)	28,955	14.4 (12.2 - 16.7)	57,364	14.8 (12.7 - 16.8)
Cataract eyes	51,738	13.8 (11.8 - 15.8)	50,490	12.6 (11.1 - 14.1)	102,228	13.2 (11.9 - 14.5)

9. Adjusted results for aphakia and pseudophakia

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Bilateral (pseudo)aphakia	25,625	13.6 (11.4 - 15.9)	35,734	17.8 (14.6 - 21.0)	61,359	15.8 (13.5 - 18.1)
Unilateral (pseudo)aphakia	22,041	11.7 (9.7 - 13.7)	22,601	11.3 (9.9 - 12.7)	44,642	11.5 (10.2 - 12.8)
Eyes (pseudo)aphakia	73,290	19.5 (17.1 - 21.9)	94,068	23.4 (20.3 - 26.5)	167,358	21.5 (19.3 - 23.8)

10. Adjusted results for cataract surgical coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	92.1	92.7	92.4
VA < 6/60	88.9	89.3	89.1
VA < 6/18	71.9	77.3	74.9
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	98.1	99.7	99.0
VA < 6/60	95.9	98.8	97.5
VA < 6/18	86.2	89.7	88.1