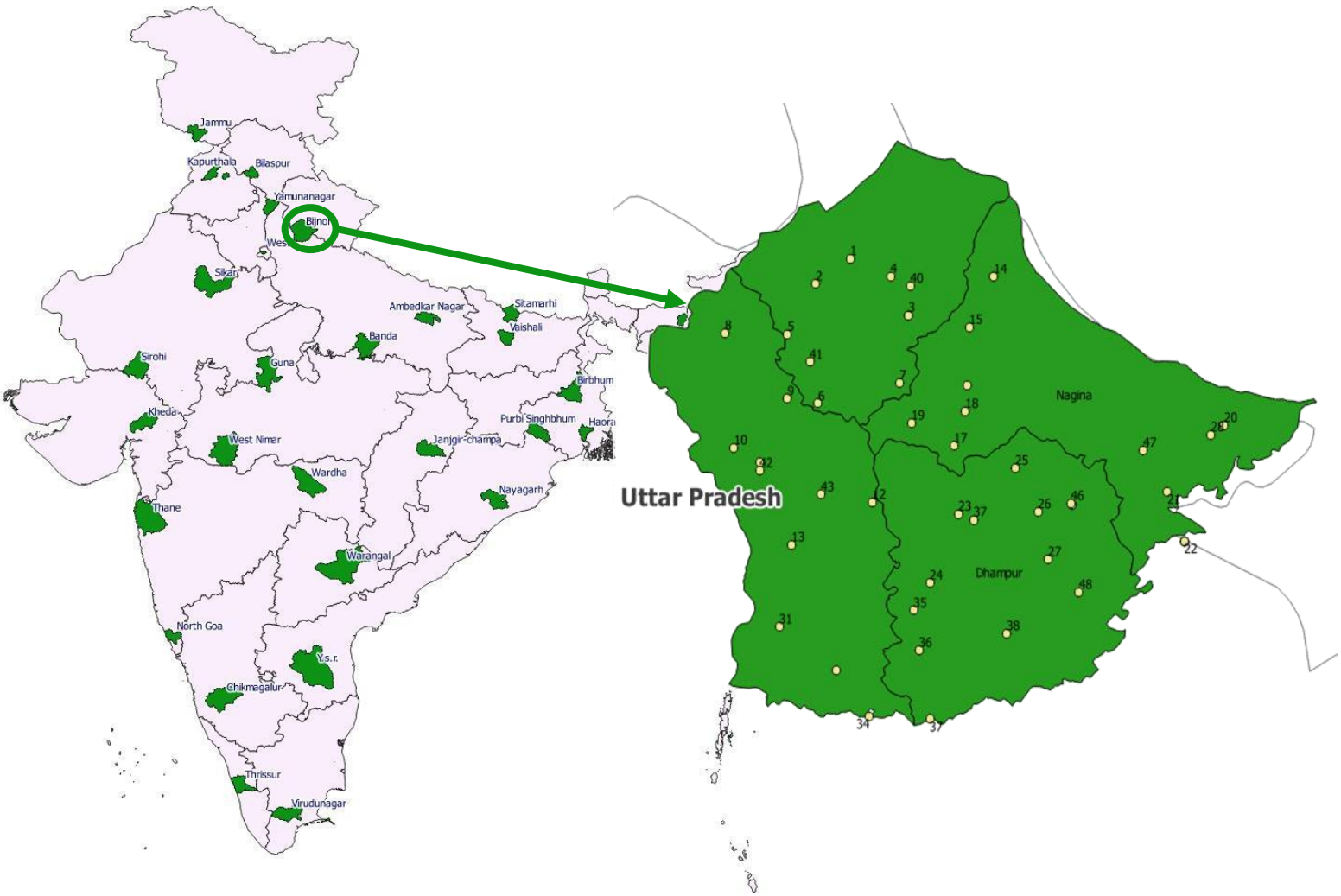
NPCB National Blindness Survey: 2015-2018

DISTRICT SUMMARY REPORT

Bijnor, Uttar Pradesh



Community Ophthalmology

Dr. Rajendra Prasad Centre for Ophthalmic Sciences

AIIMS, New Delhi - 110029

NPCB National Blindness Survey: 2015-2018

DISTRICT SUMMARY REPORT

Bijnor, Uttar Pradesh

April 2017

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RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SUMMARY REPORT

Date and time of report: 14-Oct-15 5:41:57PM

This report is for the survey area: Bijnor

Year and month when survey was conducted: 2015- 9 until 2015- 9

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	1,198	88.5%	142	10.5%	11	0.8%	3	0.2%	**1,354**	**100.0%**
Females	1,584	95.9%	47	2.8%	15	0.9%	6	0.4%	**1,652**	**100.0%**
Total	**2,782**	92.5%	**189**	6.3%	**26**	0.9%	**9**	0.3%	**3,006**	**100.0%**

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

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	543	45.3%	883	55.7%	**1,426**	**51.3%**
60 - 69 years	418	34.9%	475	30.0%	**893**	**32.1%**
70 - 79 years	164	13.7%	162	10.2%	**326**	**11.7%**
80+ years	73	6.1%	64	4.0%	**137**	**4.9%**
Total	**1,198**	**100.0%**	**1,584**	**100.0%**	**2,782**	**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	37	3.1 (2.0 - 4.2)	48	3.0 (1.9 - 4.1)	85	3.1 (2.3 - 3.8)
Severe VI	45	3.8 (2.6 - 4.9)	49	3.1 (2.2 - 4.0)	94	3.4 (2.6 - 4.2)
Moderate VI	156	13.0 (11.0 - 15.0)	218	13.8 (11.8 - 15.7)	374	13.4 (12.0 - 14.9)
Early VI	149	12.4 (10.1 - 14.7)	226	14.3 (12.2 - 16.3)	375	13.5 (12.0 - 15.0)
Functional Low Vision	24	2.0 (1.3 - 2.8)	23	1.5 (0.9 - 2.0)	47	1.7 (1.2 - 2.1)

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	7,553	3.3 (2.2 - 4.4)	8,789	4.0 (2.9 - 5.1)	16,339	3.6 (2.9 - 4.4)
Severe VI	8,897	3.8 (2.7 - 5.0)	7,809	3.6 (2.7 - 4.5)	16,708	3.7 (2.9 - 4.5)
Moderate VI	30,336	13.1 (11.1 - 15.1)	34,846	16.0 (14.0 - 17.9)	65,181	14.5 (13.0 - 15.9)
Early VI	28,985	12.5 (10.2 - 14.8)	32,558	14.9 (12.9 - 17.0)	61,546	13.7 (12.2 - 15.2)
Functional Low Vision	4,808	2.1 (1.3 - 2.8)	4,091	1.9 (1.3 - 2.4)	8,896	2.0 (1.5 - 2.4)

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	1	0.2 (0.0 - 0.5)	8	0.9 (0.3 - 1.5)	9	0.6 (0.3 - 1.0)
60 - 69 years	11	2.6 (1.2 - 4.0)	13	2.7 (1.4 - 4.1)	24	2.7 (1.7 - 3.7)
70 - 79 years	8	4.9 (1.3 - 8.4)	8	4.9 (0.7 - 9.2)	16	4.9 (2.3 - 7.5)
80+ years	17	23.3 (14.0 - 32.6)	19	29.7 (17.2 - 42.2)	36	26.3 (18.6 - 34.0)
All 50+ years	37	3.1 (2.0 - 4.2)	48	3.0 (1.9 - 4.1)	85	3.1 (2.3 - 3.8)

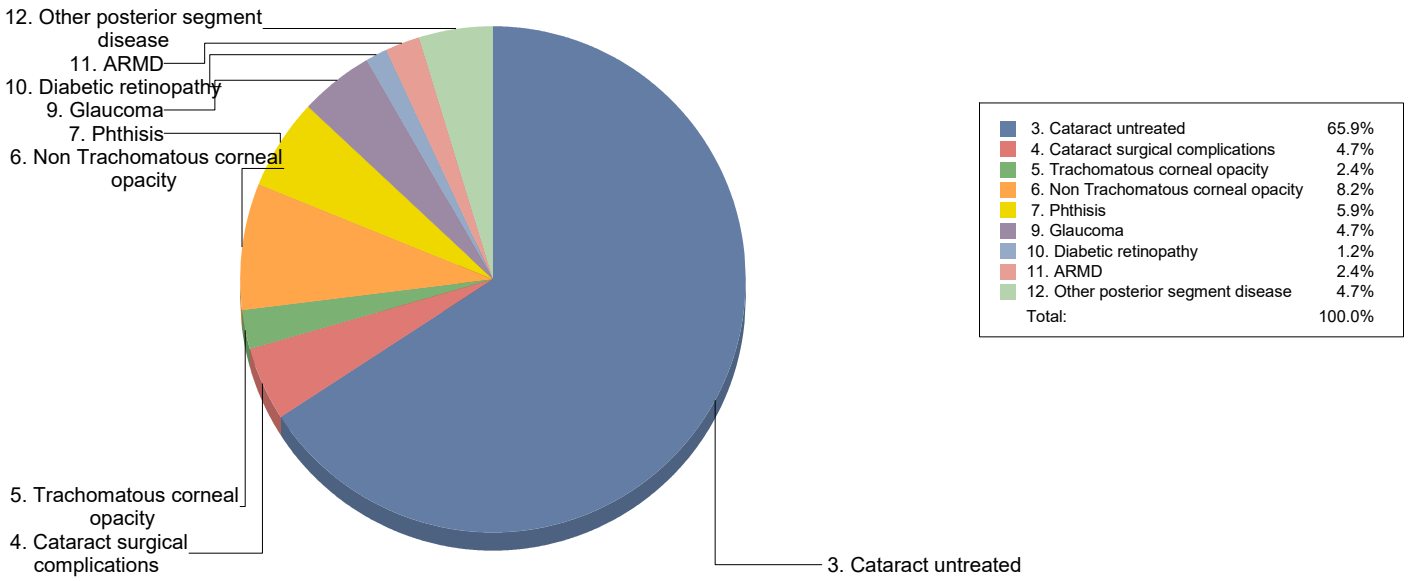
6. Principal cause of blindness, severe (SVI), moderate (MVI) and early (EVI) visual impairment in persons (PVA)

	Blindness		Severe VI		Moderate VI		Early VI	
	n	%	n	%	n	%	n	%
1. Refractive error	0	0.0%	9	9.6%	212	56.7%	306	81.6%
2. Aphakia uncorrected	0	0.0%	3	3.2%	6	1.6%	2	0.5%
3. Cataract untreated	56	65.9%	68	72.3%	118	31.6%	57	15.2%
4. Cataract surgical complications	4	4.7%	7	7.4%	11	2.9%	8	2.1%
5. Trachomatous corneal opacity	2	2.4%	0	0.0%	2	0.5%	0	0.0%
6. Non Trachomatous corneal opacity	7	8.2%	2	2.1%	8	2.1%	0	0.0%
7. Phthisis	5	5.9%	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	4	4.7%	2	2.1%	3	0.8%	0	0.0%
10. Diabetic retinopathy	1	1.2%	0	0.0%	1	0.3%	0	0.0%
11. ARMD	2	2.4%	2	2.1%	7	1.9%	2	0.5%
12. Other posterior segment disease	4	4.7%	1	1.1%	5	1.3%	0	0.0%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	1	0.3%	0	0.0%
Total	**85**	**100.0%**	**94**	**100.0%**	**374**	**100.0%**	**375**	**100.0%**

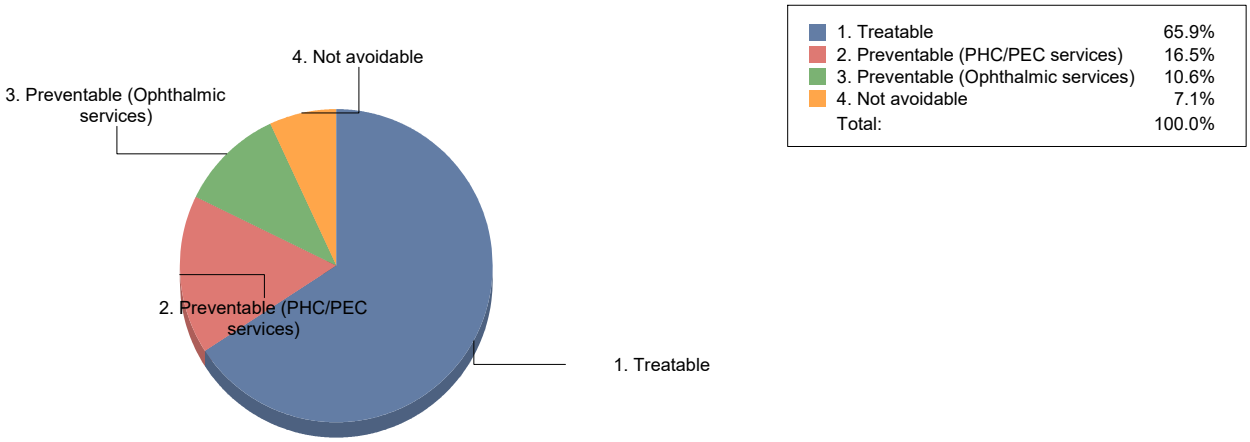
Blindness, SVI, MVI and EVI in persons by intervention category

A. Treatable (1,2,3)	56	65.9%	80	85.1%	336	89.8%	365	97.3%
B. Preventable (PHC/PEC services) (5,6,7,8)	14	16.5%	2	2.1%	10	2.7%	0	0.0%
C. Preventable (Ophthalmic services) (4,9,10)	9	10.6%	9	9.6%	15	4.0%	8	2.1%
D. Avoidable (A+B+C)	79	92.9%	91	96.8%	361	96.5%	373	99.5%
E. Posterior segment causes (8,9,10,11,12)	11	12.9%	5	5.3%	16	4.3%	2	0.5%

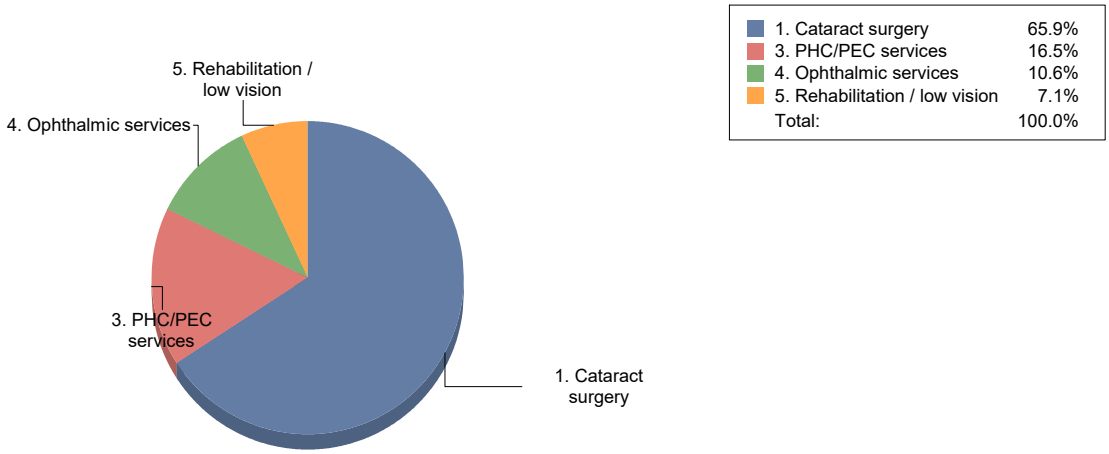
7. Graph: main cause of blindness in persons



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	93.4	92.6	92.9
VA < 6/60	89.0	87.5	88.1
VA < 6/18	67.3	69.2	68.5

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

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	10	62.5%	15	42.9%	**25**	**49.0%**
Fear	0	0.0%	5	14.3%	**5**	**9.8%**
Cost	0	0.0%	2	5.7%	**2**	**3.9%**
Treatment denied by provider	3	18.8%	5	14.3%	**8**	**15.7%**
Unaware treatment is possible	0	0.0%	0	0.0%	**0**	**0.0%**
Cannot access treatment	1	6.3%	0	0.0%	**1**	**2.0%**
Local reason	2	12.5%	8	22.9%	**10**	**19.6%**
Total	**16**	**100.0%**	**35**	**100.0%**	**51**	**100.0%**

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

	Males		Females		Total	
	n	%	n	%	n	%
Very good: can see 6/12	144	52.4%	170	42.9%	314	46.8%
Good: can see 6/18	40	14.5%	79	19.9%	119	17.7%
Borderline: can see 6/60	40	14.5%	93	23.5%	133	19.8%
Poor: cannot see 6/60	51	18.5%	54	13.6%	105	15.6%
Total	**275**	**100.0%**	**396**	**100.0%**	**671**	**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	5	6.6%	309	51.9%	**314**	**46.8%**
Good: can see 6/18	7	9.2%	112	18.8%	**119**	**17.7%**
Borderline: can see 6/60	32	42.1%	101	17.0%	**133**	**19.8%**
Poor: cannot see 6/60	32	42.1%	73	12.3%	**105**	**15.6%**
Total	**76**	**100.0%**	**595**	**100.0%**	**671**	**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%	314	100.0%
Good: can see 6/18	10	8.5%	25	33.3%	77	56.6%	7	24.1%	0	0.0%
Borderline: can see 6/60	43	36.8%	32	42.7%	48	35.3%	10	34.5%	0	0.0%
Poor: cannot see 6/60	64	54.7%	18	24.0%	11	8.1%	12	41.4%	0	0.0%
Total	**117**	**100.0%**	**75**	**100.0%**	**136**	**100.0%**	**29**	**100.0%**	**314**	**100.0%**

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report:	14-Oct-15	5:43:24PM
This report is for the survey area:	Bijnor	
Year and month when survey was conducted:	2015- 9 until 2015- 9	

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	1,198	88.5%	142	10.5%	11	0.8%	3	0.2%	**1,354**	**100.0%**
Females	1,584	95.9%	47	2.8%	15	0.9%	6	0.4%	**1,652**	**100.0%**
Total	**2,782**	**92.5%**	**189**	**6.3%**	**26**	**0.9%**	**9**	**0.3%**	**3,006**	**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	26	2.2% (1.3-3.1)	38	2.4% (1.5-3.3)	**64**	**2.3% (1.7-2.9)**
All blind eyes	190	7.9% (6.5-9.4)	241	7.6% (6.4-8.8)	**431**	**7.8% (6.9-8.6)**
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	37	3.1% (2.0-4.2)	48	3.0% (1.9-4.1)	**85**	**3.1% (2.3-3.8)**
All blind eyes	227	9.5% (7.8-11.1)	295	9.3% (8.1-10.6)	**522**	**9.4% (8.5-10.3)**
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral Severe VI	45	3.8% (2.6-4.9)	49	3.1% (2.2-4.0)	**94**	**3.4% (2.6-4.2)**
All Severe VI eyes	118	4.9% (3.9-5.9)	164	5.2% (4.1-6.2)	**282**	**5.1% (4.2-5.9)**
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral MVI	156	13.0% (11.0-15.0)	218	13.8% (11.8-15.7)	**374**	**13.4% (12.0-14.9)**
All Moderate VI eyes	359	15.0% (13.3-16.7)	477	15.1% (13.3-16.8)	**836**	**15.0% (13.7-16.4)**
Early visual impairment (EVI) - VA<6/12 - 6/18 in the better eye with available correction						
All bilateral EVI	149	12.4% (10.1-14.7)	226	14.3% (12.2-16.3)	**375**	**13.5% (12.0-15.0)**
All Early VI eyes	299	12.5% (10.5-14.5)	442	14.0% (12.3-15.6)	**741**	**13.3% (12.1-14.6)**

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	37	3.1% (2.0-4.2)	48	3.0% (1.9-4.1)	**85**	**3.1% (2.3-3.8)**
All blind eyes	227	9.5% (7.8-11.1)	295	9.3% (8.1-10.6)	**522**	**9.4% (8.5-10.3)**
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	82	6.8% (5.3-8.4)	97	6.1% (4.8-7.4)	**179**	**6.4% (5.5-7.4)**
All eyes	345	14.4% (12.5-16.3)	459	14.5% (12.8-16.2)	**804**	**14.5% (13.3-15.6)**
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	238	19.9% (17.6-22.1)	315	19.9% (17.7-22.1)	**553**	**19.9% (18.2-21.5)**
All eyes	704	29.4% (27.0-31.8)	936	29.6% (27.3-31.8)	**1,640**	**29.5% (27.8-31.2)**
VA<6/12 in the better eye, with available correction (presenting VA)						
All bilateral cases	387	32.3% (29.8-34.8)	541	34.2% (31.1-37.2)	**928**	**33.4% (31.3-35.4)**
All eyes	1,003	41.9% (39.5-44.2)	1,378	43.5% (40.7-46.3)	**2,381**	**42.8% (40.8-44.8)**

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	23	62.2%	33	68.8%	**56**	**65.9%**
4. Cataract surgical complications	2	5.4%	2	4.2%	**4**	**4.7%**
5. Trachomatous corneal opacity	0	0.0%	2	4.2%	**2**	**2.4%**
6. Non Trachomatous corneal opacity	4	10.8%	3	6.3%	**7**	**8.2%**
7. Phthisis	3	8.1%	2	4.2%	**5**	**5.9%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	1	2.7%	3	6.3%	**4**	**4.7%**
10. Diabetic retinopathy	0	0.0%	1	2.1%	**1**	**1.2%**
11. ARMD	1	2.7%	1	2.1%	**2**	**2.4%**
12. Other posterior segment disease	3	8.1%	1	2.1%	**4**	**4.7%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**37**	**100.0%**	**48**	**100.0%**	**85**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	23	62.2%	33	68.8%	56	65.9%
B. Preventable (PHC/PEC services) (5,6,7,8)	7	18.9%	7	14.6%	14	16.5%
C. Preventable (Ophthalmic services) (4,9,10)	3	8.1%	6	12.5%	9	10.6%
D. Avoidable (A+B+C)	33	89.2%	46	95.8%	79	92.9%
E. Posterior segment causes (8,9,10,11,12)	5	13.5%	6	12.5%	11	12.9%

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	2	0.9%	5	1.7%	**7**	**1.3%**
3. Cataract untreated	110	48.5%	188	63.7%	**298**	**57.1%**
4. Cataract surgical complications	6	2.6%	7	2.4%	**13**	**2.5%**
5. Trachomatous corneal opacity	0	0.0%	6	2.0%	**6**	**1.1%**
6. Non Trachomatous corneal opacity	32	14.1%	26	8.8%	**58**	**11.1%**
7. Phthisis	32	14.1%	17	5.8%	**49**	**9.4%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	13	5.7%	15	5.1%	**28**	**5.4%**
10. Diabetic retinopathy	0	0.0%	2	0.7%	**2**	**0.4%**
11. ARMD	7	3.1%	8	2.7%	**15**	**2.9%**
12. Other posterior segment disease	14	6.2%	15	5.1%	**29**	**5.6%**
13. All other globe/CNS abnormalities	11	4.8%	6	2.0%	**17**	**3.3%**
Total	**227**	**100.0%**	**295**	**100.0%**	**522**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	112	49.3%	193	65.4%	305	58.4%
B. Preventable (PHC/PEC services) (5,6,7,8)	64	28.2%	49	16.6%	113	21.6%
C. Preventable (Ophthalmic services) (4,9,10)	19	8.4%	24	8.1%	43	8.2%
D. Avoidable (A+B+C)	195	85.9%	266	90.2%	461	88.3%
E. Posterior segment causes (8,9,10,11,12)	34	15.0%	40	13.6%	74	14.2%

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	4	8.9%	5	10.2%	**9**	**9.6%**
2. Aphakia uncorrected	1	2.2%	2	4.1%	**3**	**3.2%**
3. Cataract untreated	30	66.7%	38	77.6%	**68**	**72.3%**
4. Cataract surgical complications	5	11.1%	2	4.1%	**7**	**7.4%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	2	4.4%	0	0.0%	**2**	**2.1%**
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	4.4%	0	0.0%	**2**	**2.1%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	1	2.2%	1	2.0%	**2**	**2.1%**
12. Other posterior segment disease	0	0.0%	1	2.0%	**1**	**1.1%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**45**	**100.0%**	**49**	**100.0%**	**94**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	35	77.8%	45	91.8%	80	85.1%
B. Preventable (PHC/PEC services) (5,6,7,8)	2	4.4%	0	0.0%	2	2.1%
C. Preventable (Ophthalmic services) (4,9,10)	7	15.6%	2	4.1%	9	9.6%
D. Avoidable (A+B+C)	44	97.8%	47	95.9%	91	96.8%
E. Posterior segment causes (8,9,10,11,12)	3	6.7%	2	4.1%	5	5.3%

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	15	12.7%	17	10.4%	**32**	**11.3%**
2. Aphakia uncorrected	2	1.7%	2	1.2%	**4**	**1.4%**
3. Cataract untreated	75	63.6%	122	74.4%	**197**	**69.9%**
4. Cataract surgical complications	8	6.8%	5	3.0%	**13**	**4.6%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	6	5.1%	5	3.0%	**11**	**3.9%**
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	1.7%	1	0.6%	**3**	**1.1%**
10. Diabetic retinopathy	2	1.7%	0	0.0%	**2**	**0.7%**
11. ARMD	4	3.4%	2	1.2%	**6**	**2.1%**
12. Other posterior segment disease	3	2.5%	8	4.9%	**11**	**3.9%**
13. All other globe/CNS abnormalities	1	0.8%	2	1.2%	**3**	**1.1%**
Total	**118**	**100.0%**	**164**	**100.0%**	**282**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	92	78.0%	141	86.0%	233	82.6%
B. Preventable (PHC/PEC services) (5,6,7,8)	6	5.1%	5	3.0%	11	3.9%
C. Preventable (Ophthalmic services) (4,9,10)	12	10.2%	6	3.7%	18	6.4%
D. Avoidable (A+B+C)	110	93.2%	152	92.7%	262	92.9%
E. Posterior segment causes (8,9,10,11,12)	11	9.3%	11	6.7%	22	7.8%

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	90	57.7%	122	56.0%	**212**	**56.7%**
2. Aphakia uncorrected	3	1.9%	3	1.4%	**6**	**1.6%**
3. Cataract untreated	46	29.5%	72	33.0%	**118**	**31.6%**
4. Cataract surgical complications	5	3.2%	6	2.8%	**11**	**2.9%**
5. Trachomatous corneal opacity	0	0.0%	2	0.9%	**2**	**0.5%**
6. Non Trachomatous corneal opacity	5	3.2%	3	1.4%	**8**	**2.1%**
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	0.6%	2	0.9%	**3**	**0.8%**
10. Diabetic retinopathy	1	0.6%	0	0.0%	**1**	**0.3%**
11. ARMD	1	0.6%	6	2.8%	**7**	**1.9%**
12. Other posterior segment disease	3	1.9%	2	0.9%	**5**	**1.3%**
13. All other globe/CNS abnormalities	1	0.6%	0	0.0%	**1**	**0.3%**
Total	**156**	**100.0%**	**218**	**100.0%**	**374**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	139	89.1%	197	90.4%	336	89.8%
B. Preventable (PHC/PEC services) (5,6,7,8)	5	3.2%	5	2.3%	10	2.7%
C. Preventable (Ophthalmic services) (4,9,10)	7	4.5%	8	3.7%	15	4.0%
D. Avoidable (A+B+C)	151	96.8%	210	96.3%	361	96.5%
E. Posterior segment causes (8,9,10,11,12)	6	3.9%	10	4.6%	16	4.3%

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	224	62.4%	291	61.0%	**515**	**61.6%**
2. Aphakia uncorrected	3	0.8%	5	1.0%	**8**	**1.0%**
3. Cataract untreated	90	25.1%	118	24.7%	**208**	**24.9%**
4. Cataract surgical complications	15	4.2%	26	5.5%	**41**	**4.9%**
5. Trachomatous corneal opacity	0	0.0%	2	0.4%	**2**	**0.2%**
6. Non Trachomatous corneal opacity	8	2.2%	4	0.8%	**12**	**1.4%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	1	0.3%	2	0.4%	**3**	**0.4%**
10. Diabetic retinopathy	2	0.6%	1	0.2%	**3**	**0.4%**
11. ARMD	5	1.4%	18	3.8%	**23**	**2.8%**
12. Other posterior segment disease	7	1.9%	7	1.5%	**14**	**1.7%**
13. All other globe/CNS abnormalities	4	1.1%	3	0.6%	**7**	**0.8%**
Total	**359**	**100.0%**	**477**	**100.0%**	**836**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	317	88.3%	414	86.8%	731	87.4%
B. Preventable (PHC/PEC services) (5,6,7,8)	8	2.2%	6	1.3%	14	1.7%
C. Preventable (Ophthalmic services) (4,9,10)	18	5.0%	29	6.1%	47	5.6%
D. Avoidable (A+B+C)	343	95.5%	449	94.1%	792	94.7%
E. Posterior segment causes (8,9,10,11,12)	15	4.2%	28	5.9%	43	5.1%

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	120	80.5%	186	82.3%	**306**	**81.6%**
2. Aphakia uncorrected	1	0.7%	1	0.4%	**2**	**0.5%**
3. Cataract untreated	23	15.4%	34	15.0%	**57**	**15.2%**
4. Cataract surgical complications	5	3.4%	3	1.3%	**8**	**2.1%**
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	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%	2	0.9%	**2**	**0.5%**
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	**149**	**100.0%**	**226**	**100.0%**	**375**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	144	96.6%	221	97.8%	365	97.3%
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)	5	3.4%	3	1.3%	8	2.1%
D. Avoidable (A+B+C)	149	100.0%	224	99.1%	373	99.5%
E. Posterior segment causes (8,9,10,11,12)	0	0.0%	2	0.9%	2	0.5%

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	231	77.3%	354	80.1%	**585**	**78.9%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	49	16.4%	59	13.3%	**108**	**14.6%**
4. Cataract surgical complications	13	4.3%	18	4.1%	**31**	**4.2%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	3	1.0%	0	0.0%	**3**	**0.4%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	0	0.0%	**0**	**0.0%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	2	0.7%	7	1.6%	**9**	**1.2%**
12. Other posterior segment disease	1	0.3%	4	0.9%	**5**	**0.7%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**299**	**100.0%**	**442**	**100.0%**	**741**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	280	93.6%	413	93.4%	693	93.5%
B. Preventable (PHC/PEC services) (5,6,7,8)	3	1.0%	0	0.0%	3	0.4%
C. Preventable (Ophthalmic services) (4,9,10)	13	4.3%	18	4.1%	31	4.2%
D. Avoidable (A+B+C)	296	99.0%	431	97.5%	727	98.1%
E. Posterior segment causes (8,9,10,11,12)	3	1.0%	11	2.5%	14	1.9%

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	8	0.7% (0.2-1.1)	14	0.9% (0.4-1.4)	**22**	**0.8% (0.4-1.2)**
Unilateral cataract	68	5.7% (4.2-7.2)	123	7.8% (6.4-9.1)	**191**	**6.9% (6.0-7.8)**
Cataract eyes	84	3.5% (2.6-4.4)	151	4.8% (4.0-5.6)	**235**	**4.2% (3.7-4.8)**
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	15	1.3% (0.7-1.8)	27	1.7% (1.0-2.4)	**42**	**1.5% (1.0-2.0)**
Unilateral cataract	83	6.9% (6.0-9.5)	153	9.7% (6.5-10.0)	**236**	**8.5% (6.9-9.2)**
Cataract eyes	113	4.7% (3.7-5.7)	207	6.5% (5.5-7.5)	**320**	**5.8% (5.1-6.4)**
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	70	5.8% (4.6-7.1)	100	6.3% (5.0-7.7)	**170**	**6.1% (5.3-7.0)**
Unilateral cataract	129	10.8% (8.7-12.8)	225	14.2% (12.7-15.7)	**354**	**12.7% (11.5-14.0)**
Cataract eyes	269	11.2% (9.5-12.9)	425	13.4% (11.8-15.0)	**694**	**12.5% (11.3-13.6)**
Cataract and VA<6/12 with best correction or pinhole						
Bilateral cataract	89	7.4% (6.1-8.7)	127	8.0% (6.6-9.4)	**216**	**7.8% (6.9-8.7)**
Unilateral cataract	152	12.7% (10.8-14.6)	241	15.2% (13.6-16.8)	**393**	**14.1% (12.8-15.4)**
Cataract eyes	330	13.8% (12.1-15.5)	495	15.6% (13.9-17.3)	**825**	**14.8% (13.6-16.0)**

13. Sample prevalence of (pseudo)aphakia

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Bilateral (pseudo)aphakia	79	6.6% (5.0-8.2)	109	6.9% (5.6-8.2)	**188**	**6.8% (5.7-7.8)**
Unilateral (pseudo)aphakia	117	9.8% (7.9-11.6)	178	11.2% (9.9-12.6)	**295**	**10.6% (9.5-11.7)**
(Pseudo)aphakic eyes	275	11.5% (9.8-13.2)	396	12.5% (11.1-13.9)	**671**	**12.1% (10.8-13.3)**

14. Cataract Surgical Coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	76.6	72.4	74.1
VA < 6/60	70.9	65.7	67.7
VA < 6/18	50.6	48.2	49.2
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	93.4	92.6	92.9
VA < 6/60	89.0	87.5	88.1
VA < 6/18	67.3	69.2	68.5

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

	Males		Females		Total	
	n	%	n	%	n	%
First eyes	196	71.3	287	72.5	**483**	**72.0**
Second eyes	79	28.7	109	27.5	**188**	**28.0**

16. Uncorrected refractive error and uncorrected presbyopia

	Males		Females		Total	
	n	%	n	%	n	%
Total refractive errors	329	27.5	466	29.4	**795**	**28.6**
Uncorrected refractive errors	219	18.3	319	20.1	**538**	**19.3**
Uncorrected presbyopia	909	75.9	1,288	81.3	**2,197**	**79.0**

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	10	2.4	11	2.3	**21**	**2.4**
70 - 79	3	1.8	6	3.7	**9**	**2.8**
80+	9	12.3	5	7.8	**14**	**10.2**
Total	24	2.0	23	1.5	**47**	**1.7**

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	6	25.0%	6	26.1%	**12**	**25.5%**
5. Trachomatous corneal opacity	0	0.0%	4	17.4%	**4**	**8.5%**
6. Non Trachomatous corneal opacity	8	33.3%	3	13.0%	**11**	**23.4%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	4	16.7%	3	13.0%	**7**	**14.9%**
10. Diabetic retinopathy	1	4.2%	1	4.3%	**2**	**4.3%**
11. ARMD	2	8.3%	4	17.4%	**6**	**12.8%**
12. Other posterior segment disease	2	8.3%	2	8.7%	**4**	**8.5%**
13. All other globe/CNS abnormalities	1	4.2%	0	0.0%	**1**	**2.1%**
Total	**24**	**100.0%**	**23**	**100.0%**	**47**	**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)	8	33.3%	7	30.4%	15	31.9%
C. Preventable (Ophthalmic services) (4,9,10)	11	45.8%	10	43.5%	21	44.7%
D. Avoidable (A+B+C)	19	79.2%	17	73.9%	36	76.6%
E. Posterior segment causes (8,9,10,11,12)	9	37.5%	10	43.5%	19	40.4%

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+	5	13.5	10	20.8	**15**	**17.7**
BCVA<6/60 - 3/60	5	11.1	2	4.1	**7**	**7.5**
BCVA<6/18 - 6/60	14	9.0	11	5.1	**25**	**6.7**
Total	24	10.1	23	7.3	**47**	**8.5**

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

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

Date and time of report: 14-Oct-15 5:43:58PM

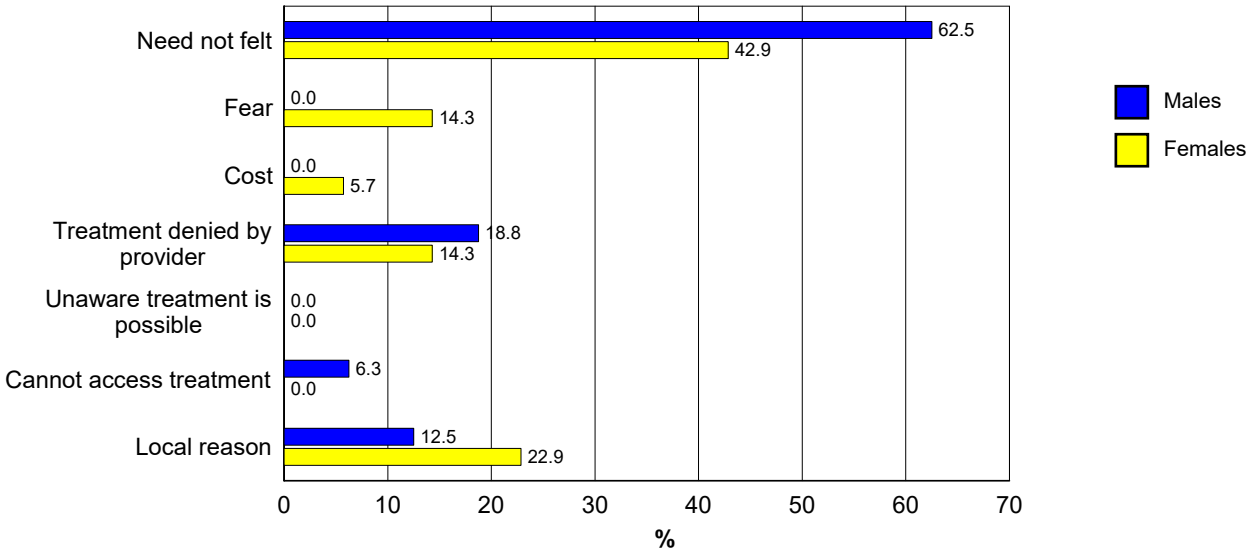
This report is for the survey area: Bijnor

Year and month when survey was conducted: 2015- 9 until 2015- 9

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.

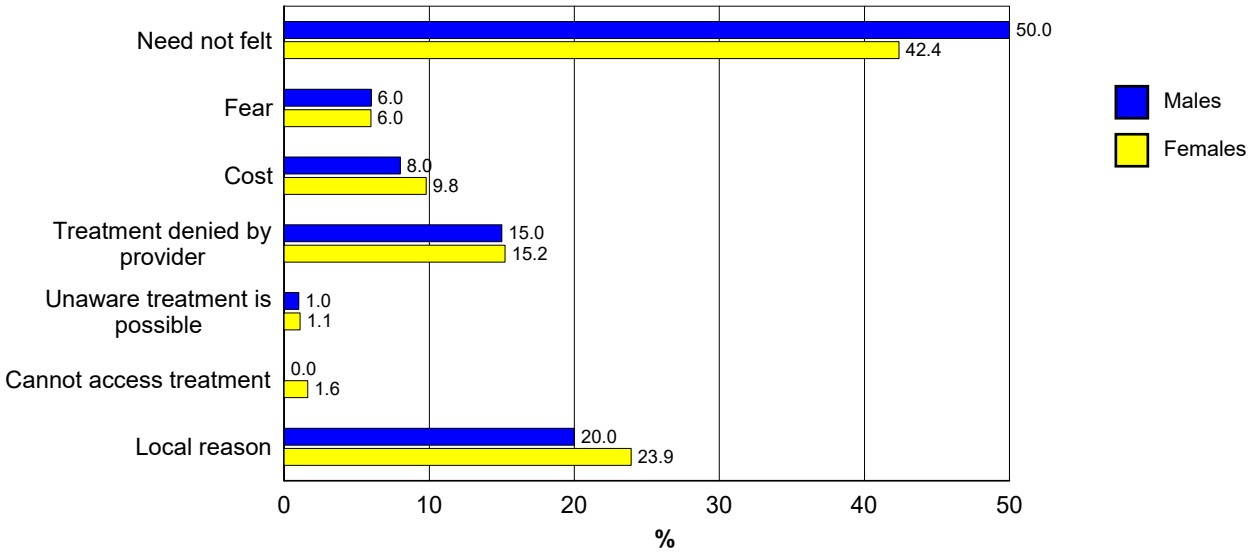
1. Barriers to cataract surgery in sample (bilateral BCVA<6/60 due to cataract)

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	10	62.5%	15	42.9%	25	49.0%
Fear	0	0.0%	5	14.3%	5	9.8%
Cost	0	0.0%	2	5.7%	2	3.9%
Treatment denied by provider	3	18.8%	5	14.3%	8	15.7%
Unaware treatment is possible	0	0.0%	0	0.0%	0	0.0%
Cannot access treatment	1	6.3%	0	0.0%	1	2.0%
Local reason	2	12.5%	8	22.9%	10	19.6%
Total	**16**	**100.0%**	**35**	**100.0%**	**51**	**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	50	50.0%	78	42.4%	128	45.1%
Fear	6	6.0%	11	6.0%	17	6.0%
Cost	8	8.0%	18	9.8%	26	9.2%
Treatment denied by provider	15	15.0%	28	15.2%	43	15.1%
Unaware treatment is possible	1	1.0%	2	1.1%	3	1.1%
Cannot access treatment	0	0.0%	3	1.6%	3	1.1%
Local reason	20	20.0%	44	23.9%	64	22.5%
Total	**100**	**100.0%**	**184**	**100.0%**	**284**	**100.0%**



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

	Non-IOL	%	IOL	%	Couching	%		%
Very good: can see 6/12	5	6.6%	309	51.9%	0	0.0%	**314**	**46.8%**
Good: can see 6/18	7	9.2%	112	18.8%	0	0.0%	**119**	**17.7%**
Borderline: can see 6/60	32	42.1%	101	17.0%	0	0.0%	**133**	**19.8%**
Poor: cannot see 6/60	32	42.1%	73	12.3%	0	0.0%	**105**	**15.6%**
	76	**100.0%**	**595**	**100.0%**	**0**	**0.0%**	**671**	**100.0%**

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

	Non-IOL	%	IOL	%	Couching	%		%
Very good: can see 6/12	5	6.6%	393	66.1%	0	0.0%	**398**	**59.3%**
Good: can see 6/18	23	30.3%	86	14.5%	0	0.0%	**109**	**16.2%**
Borderline: can see 6/60	23	30.3%	62	10.4%	0	0.0%	**85**	**12.7%**
Poor: cannot see 6/60	25	32.9%	54	9.1%	0	0.0%	**79**	**11.8%**
	76	**100.0%**	**595**	**100.0%**	**0**	**0.0%**	**671**	**100.0%**

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

	3 yrs postop	%	4 - 6 yrs postop.	%	7+ yrs postop	%		%
Very good: can see 6/12	171	58.6%	84	45.7%	59	30.3%	**314**	**46.8%**
Good: can see 6/18	48	16.4%	36	19.6%	35	17.9%	**119**	**17.7%**
Borderline: can see 6/60	36	12.3%	42	22.8%	55	28.2%	**133**	**19.8%**
Poor: cannot see 6/60	37	12.7%	22	12.0%	46	23.6%	**105**	**15.6%**
	292	**100.0%**	**184**	**100.0%**	**195**	**100.0%**	**671**	**100.0%**

4. Age at time of surgery in males and females

	Males	%	Females	%		%
1 - 29	0	0.0%	0	0.0%	**0**	**0.0%**
30 - 39	2	0.7%	4	1.0%	**6**	**0.9%**
40 - 49	16	5.8%	33	8.3%	**49**	**7.3%**
50 - 59	96	34.9%	145	36.6%	**241**	**35.9%**
60 - 69	105	38.2%	158	39.9%	**263**	**39.2%**
70 - 79	45	16.4%	46	11.6%	**91**	**13.6%**
80+	11	4.0%	10	2.5%	**21**	**3.1%**
	275	**100.0%**	**396**	**100.0%**	**671**	**100.0%**

5. Place of surgery by sex

	Males		Females			
		%		%		%
Government Hosp.	95	34.5	119	30.1	**214**	**31.9**
Voluntary/charitable hospital	13	4.7	30	7.6	**43**	**6.4**
Private hospital	134	48.7	199	50.3	**333**	**49.6**
Eyecamp	33	12.0	48	12.1	**81**	**12.1**
	275	**100.0**	**396**	**100.0**	**671**	**100.0**

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

	Gov. Hosp.		Vol. Hosp.		Priv. Hosp.		Eye camp			
		%		%		%		%		%
Very good: can see 6/12	77	36.0	28	65.1	172	51.7	37	45.7	**314**	**46.8**
Good: can see 6/18	44	20.6	7	16.3	56	16.8	12	14.8	**119**	**17.7**
Borderline: can see 6/60	51	23.8	4	9.3	64	19.2	14	17.3	**133**	**19.8**
Poor: cannot see 6/60	42	19.6	4	9.3	41	12.3	18	22.2	**105**	**15.6**
	214	**100.0**	**43**	**100.0**	**333**	**100.0**	**81**	**100.0**	**671**	**100.0**

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

	Selection		Surgery		Spectacles		Sequelae		Can see 6/12			
		%		%		%		%		%		%
Very good: can see 6/12	0	0.0	0	0.0	0	0.0	0	0.0	314	100.0	**314**	**46.8**
Good: can see 6/18	10	8.5	25	33.3	77	56.6	7	24.1	0	0.0	**119**	**17.7**
Borderline: can see 6/60	43	36.8	32	42.7	48	35.3	10	34.5	0	0.0	**133**	**19.8**
Poor: cannot see 6/60	64	54.7	18	24.0	11	8.1	12	41.4	0	0.0	**105**	**15.6**
	117	**100.0**	**75**	**100.0**	**136**	**100.0**	**29**	**100.0**	**314**	**100.0**	**671**	**100.0**

8. Proportion and type of surgery

	Males		Females			
		%		%		%
Non-IOL	30	10.9	46	11.6	**76**	**11.3**
IOL	245	89.1	350	88.4	**595**	**88.7**
Couching	0	0.0	0	0.0	**0**	**0.0**
	275	**100.0**	**396**	**100.0**	**671**	**100.0**

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

INDICATORS BY SEX AND BY AGE GROUP - FINDINGS FROM SAMPLE

Date and time of report:	14-Oct-15	5:44:36PM
This report is for the survey area:	Bijnor	
Year and month when survey was conducted:	2015- 9 until 2015- 9	

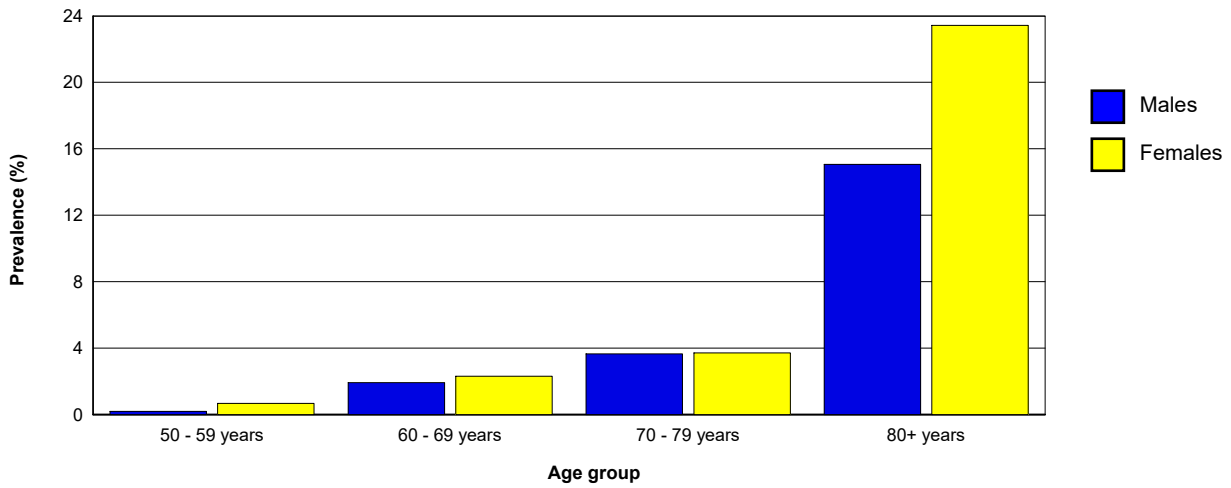
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals 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	543	45.3%	883	55.7%	1,426	50.5%
60 - 69 years	418	34.9%	475	30.0%	893	32.4%
70 - 79 years	164	13.7%	162	10.2%	326	12.0%
80+ years	73	6.1%	64	4.0%	137	5.1%
Total	**1,198**	**100.0%**	**1,584**	**100.0%**	**2,782**	**100.0%**

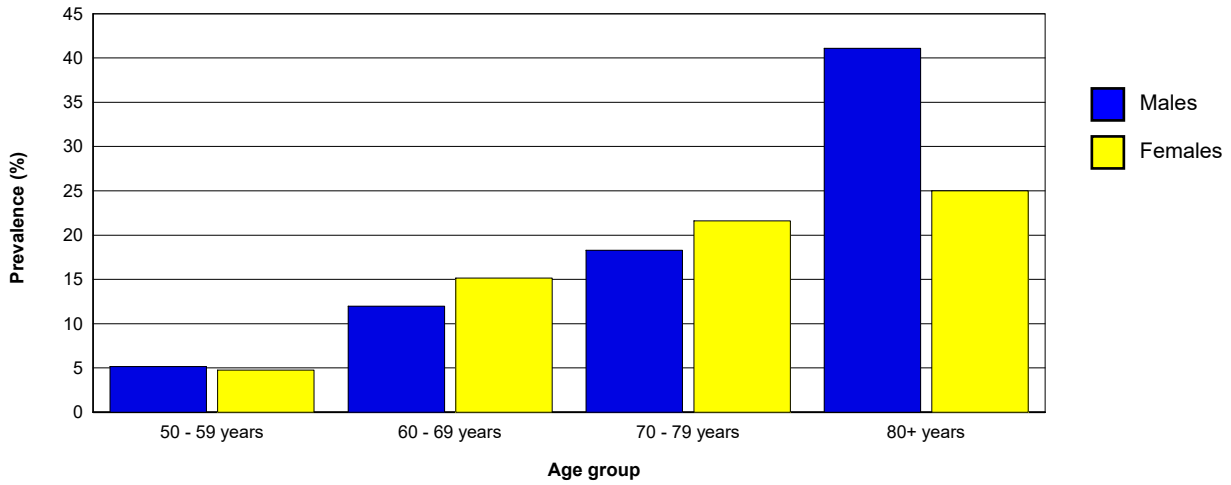
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2%	6	0.7%	7	0.5%
60 - 69 years	8	1.9%	11	2.3%	19	2.1%
70 - 79 years	6	3.7%	6	3.7%	12	3.7%
80+ years	11	15.1%	15	23.4%	26	19.0%
Total	**26**	**2.2%**	**38**	**2.4%**	**64**	**2.3%**



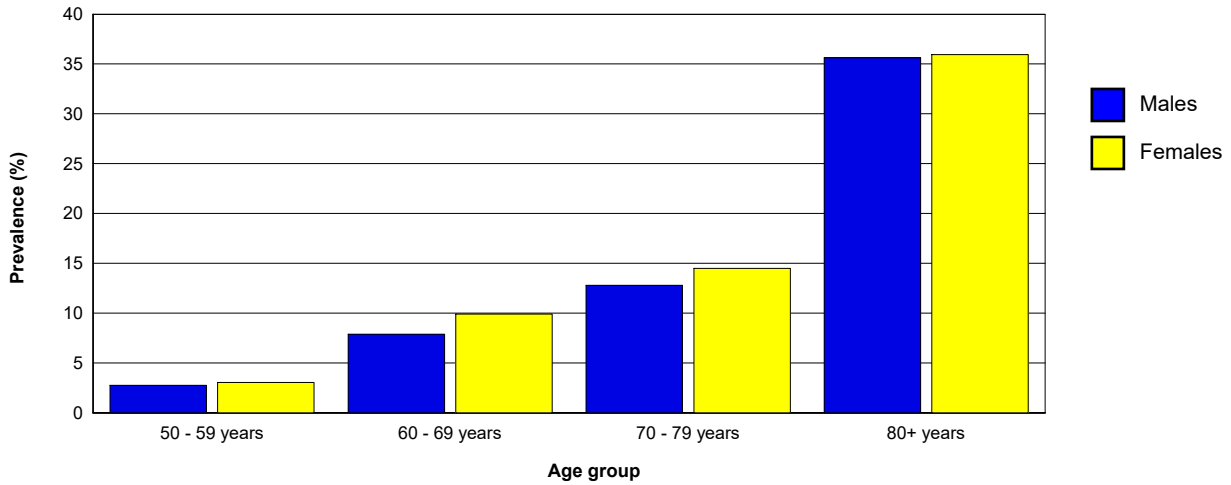
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	28	5.2%	42	4.8%	70	4.9%
60 - 69 years	50	12.0%	72	15.2%	122	13.7%
70 - 79 years	30	18.3%	35	21.6%	65	19.9%
80+ years	30	41.1%	16	25.0%	46	33.6%
Total	**138**	**11.5%**	**165**	**10.4%**	**303**	**10.9%**



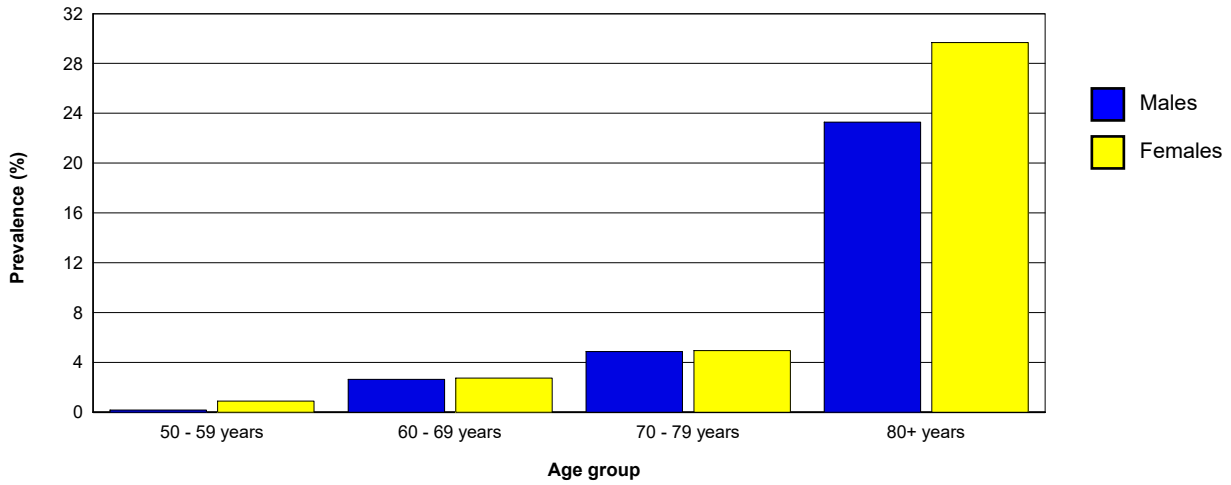
4. Prevalence of blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	30	2.8%	54	3.1%	84	2.9%
60 - 69 years	66	7.9%	94	9.9%	160	9.0%
70 - 79 years	42	12.8%	47	14.5%	89	13.7%
80+ years	52	35.6%	46	35.9%	98	35.8%
Total	**190**	**7.9%**	**241**	**7.6%**	**431**	**7.7%**



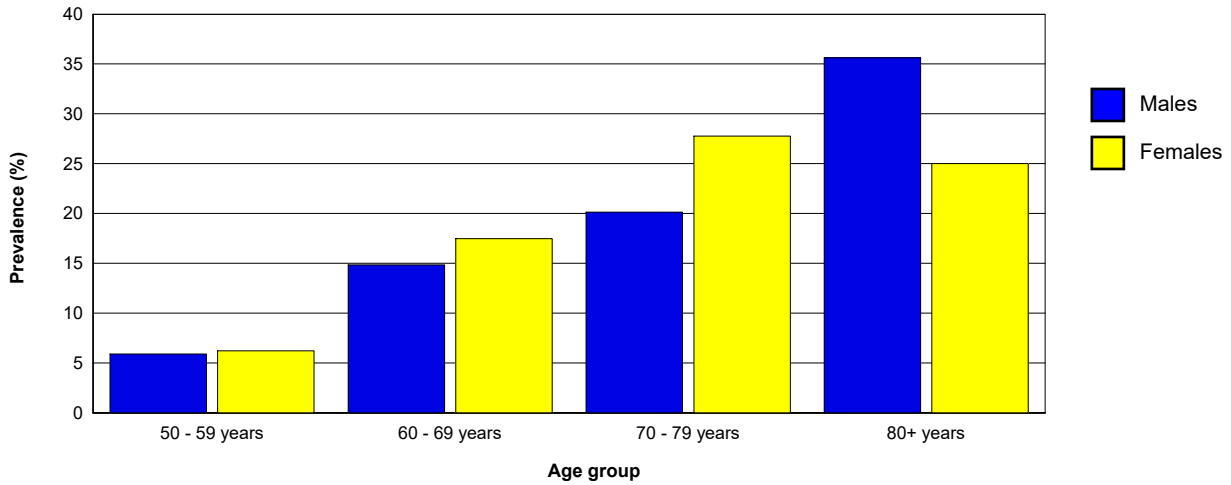
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2%	8	0.9%	9	0.6%
60 - 69 years	11	2.6%	13	2.7%	24	2.7%
70 - 79 years	8	4.9%	8	4.9%	16	4.9%
80+ years	17	23.3%	19	29.7%	36	26.3%
Total	**37**	**3.1%**	**48**	**3.0%**	**85**	**3.1%**



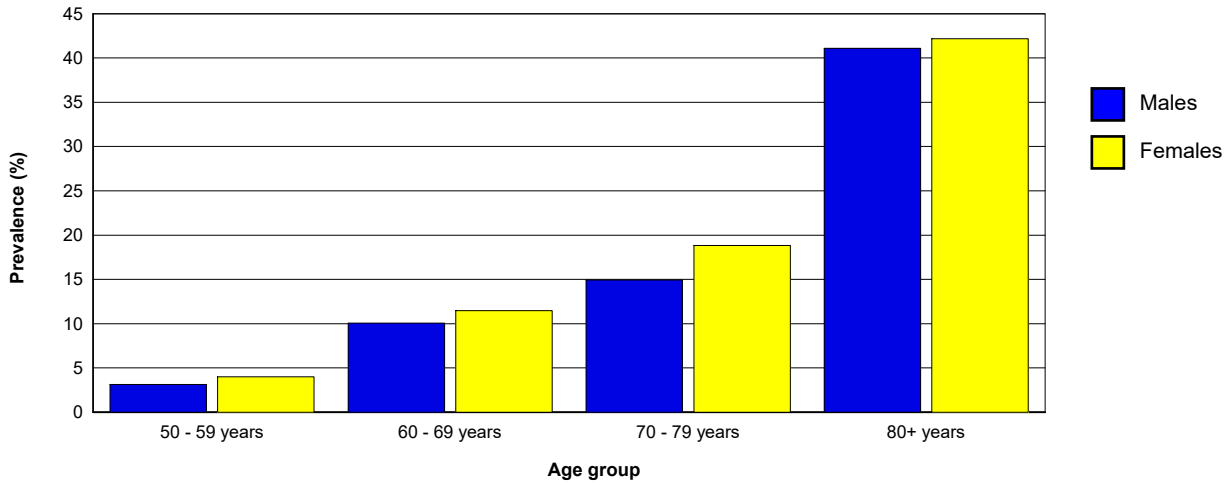
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	32	5.9%	55	6.2%	87	6.1%
60 - 69 years	62	14.8%	83	17.5%	145	16.2%
70 - 79 years	33	20.1%	45	27.8%	78	23.9%
80+ years	26	35.6%	16	25.0%	42	30.7%
Total	**153**	**12.8%**	**199**	**12.6%**	**352**	**12.7%**



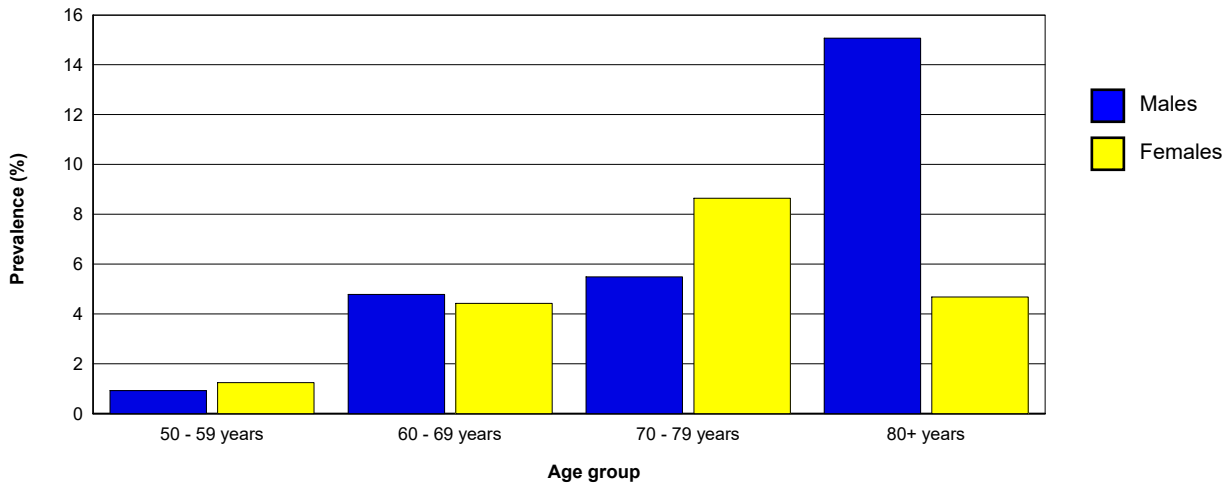
7. Prevalence of blind eyes - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	34	3.1%	71	4.0%	105	3.7%
60 - 69 years	84	10.0%	109	11.5%	193	10.8%
70 - 79 years	49	14.9%	61	18.8%	110	16.9%
80+ years	60	41.1%	54	42.2%	114	41.6%
Total	**227**	**9.5%**	**295**	**9.3%**	**522**	**9.4%**



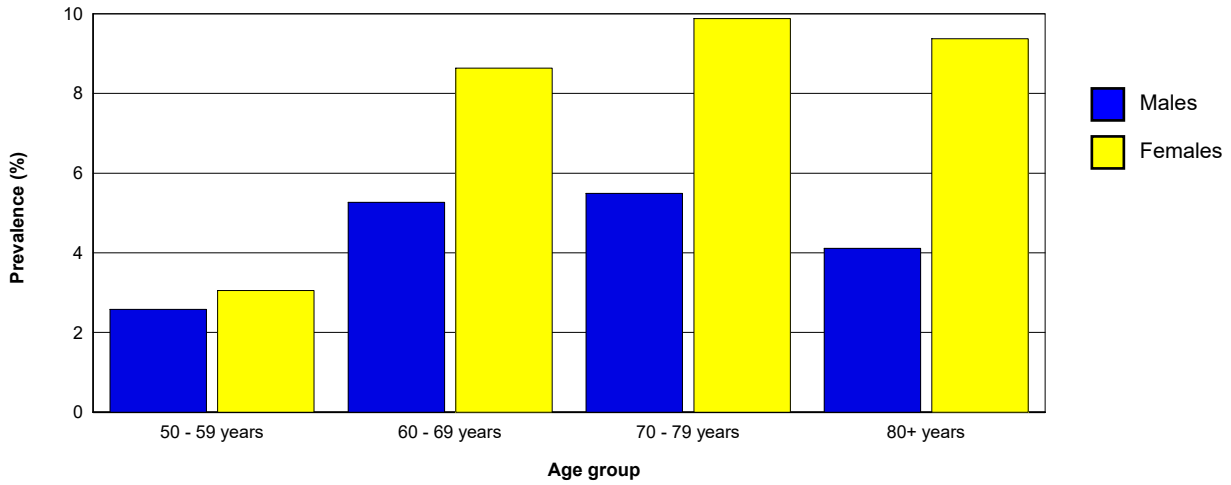
8. Prevalence of people with bilateral severe visual impairment - VA<6/60-3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	5	0.9%	11	1.2%	16	1.1%
60 - 69 years	20	4.8%	21	4.4%	41	4.6%
70 - 79 years	9	5.5%	14	8.6%	23	7.1%
80+ years	11	15.1%	3	4.7%	14	10.2%
Total	**45**	**3.8%**	**49**	**3.1%**	**94**	**3.4%**



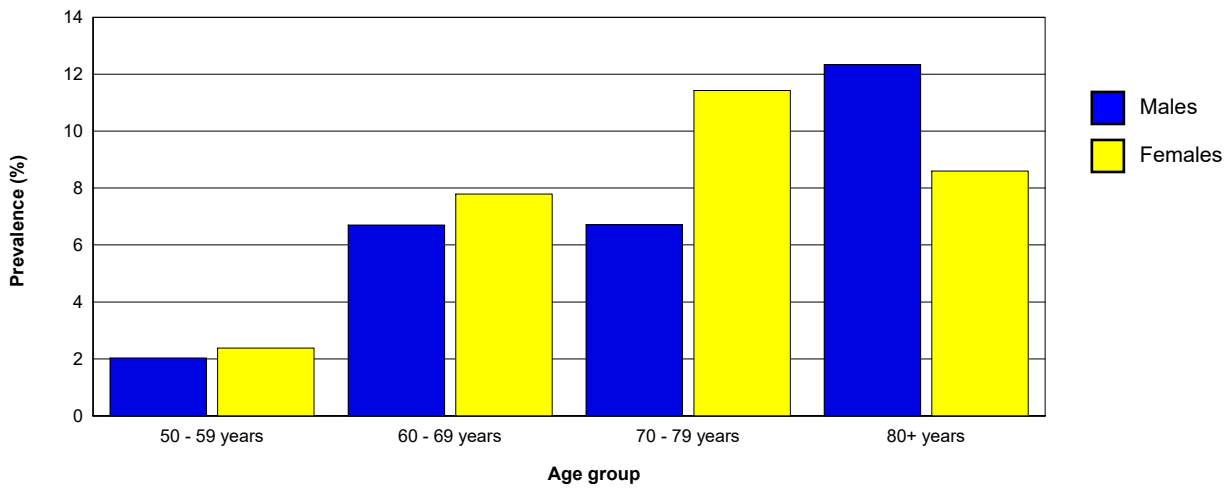
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	14	2.6%	27	3.1%	41	2.9%
60 - 69 years	22	5.3%	41	8.6%	63	7.1%
70 - 79 years	9	5.5%	16	9.9%	25	7.7%
80+ years	3	4.1%	6	9.4%	9	6.6%
Total	**48**	**4.0%**	**90**	**5.7%**	**138**	**5.0%**



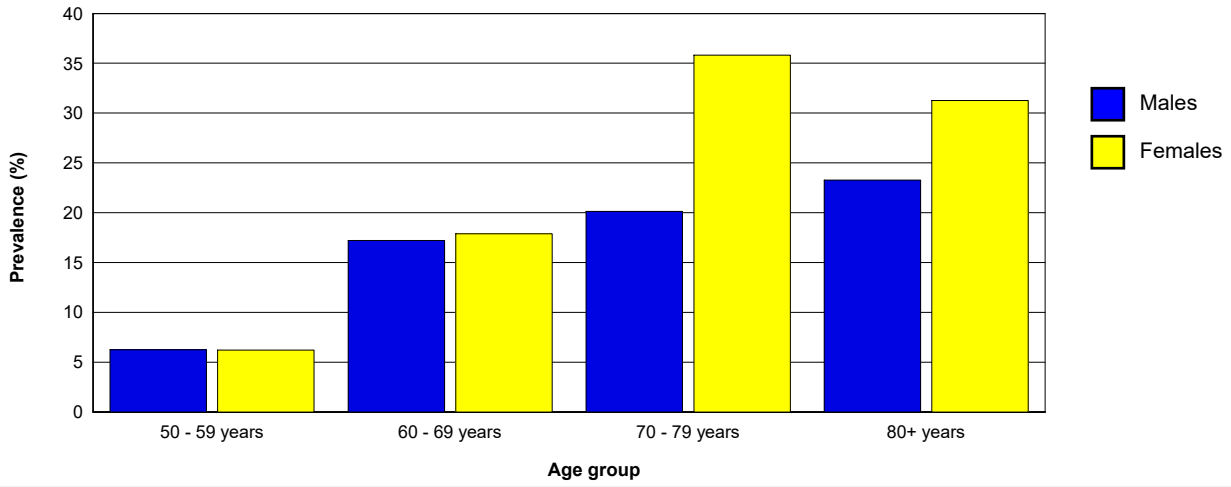
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	22	2.0%	42	2.4%	64	2.2%
60 - 69 years	56	6.7%	74	7.8%	130	7.3%
70 - 79 years	22	6.7%	37	11.4%	59	9.0%
80+ years	18	12.3%	11	8.6%	29	10.6%
Total	**118**	**4.9%**	**164**	**5.2%**	**282**	**5.1%**



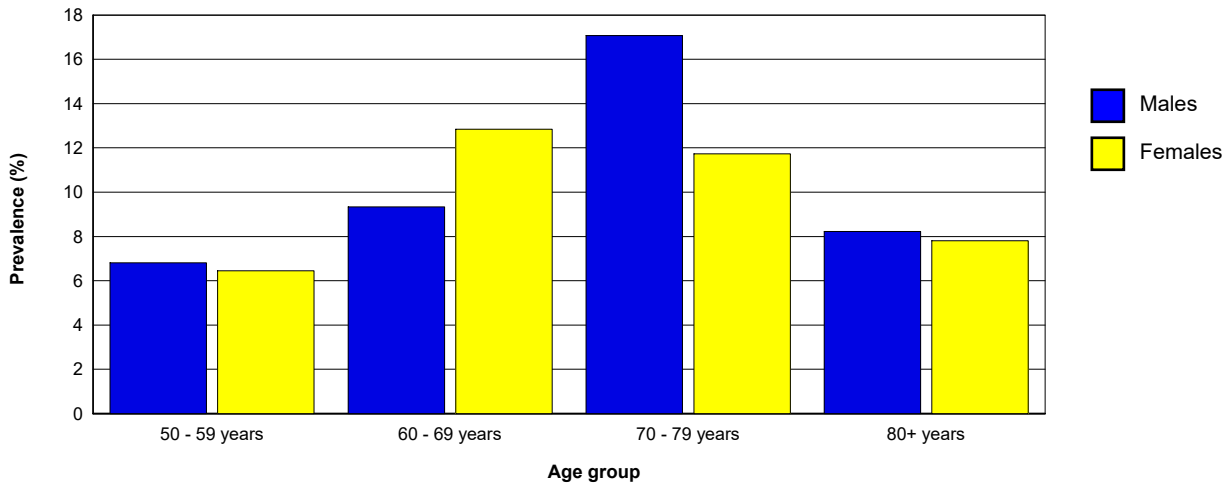
11. Prevalence of people with bilateral moderate visual impairment - VA <6/18-6/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	34	6.3%	55	6.2%	89	6.2%
60 - 69 years	72	17.2%	85	17.9%	157	17.6%
70 - 79 years	33	20.1%	58	35.8%	91	27.9%
80+ years	17	23.3%	20	31.3%	37	27.0%
Total	**156**	**13.0%**	**218**	**13.8%**	**374**	**13.4%**



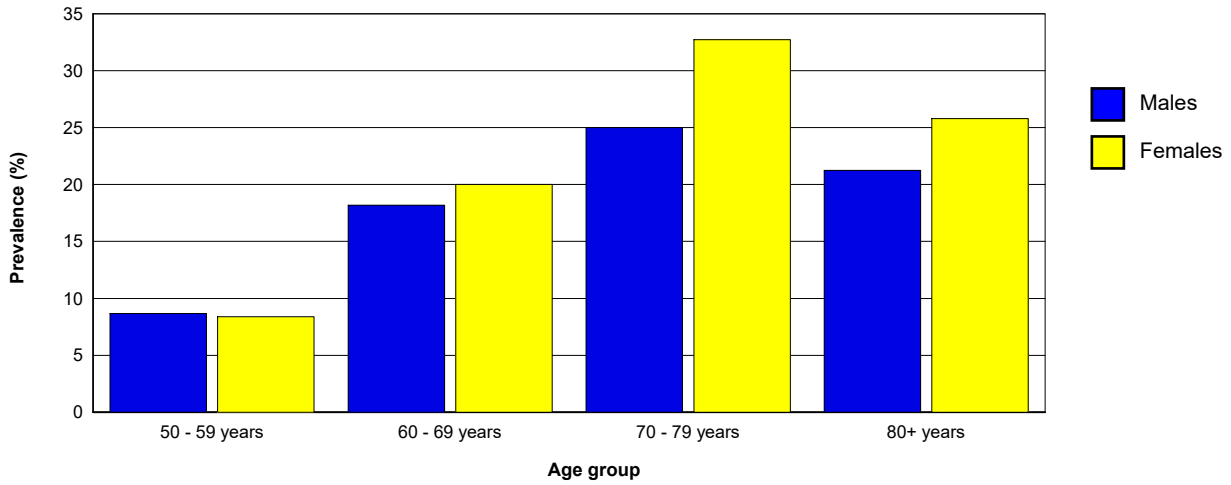
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	37	6.8%	57	6.5%	94	6.6%
60 - 69 years	39	9.3%	61	12.8%	100	11.2%
70 - 79 years	28	17.1%	19	11.7%	47	14.4%
80+ years	6	8.2%	5	7.8%	11	8.0%
Total	**110**	**9.2%**	**142**	**9.0%**	**252**	**9.1%**



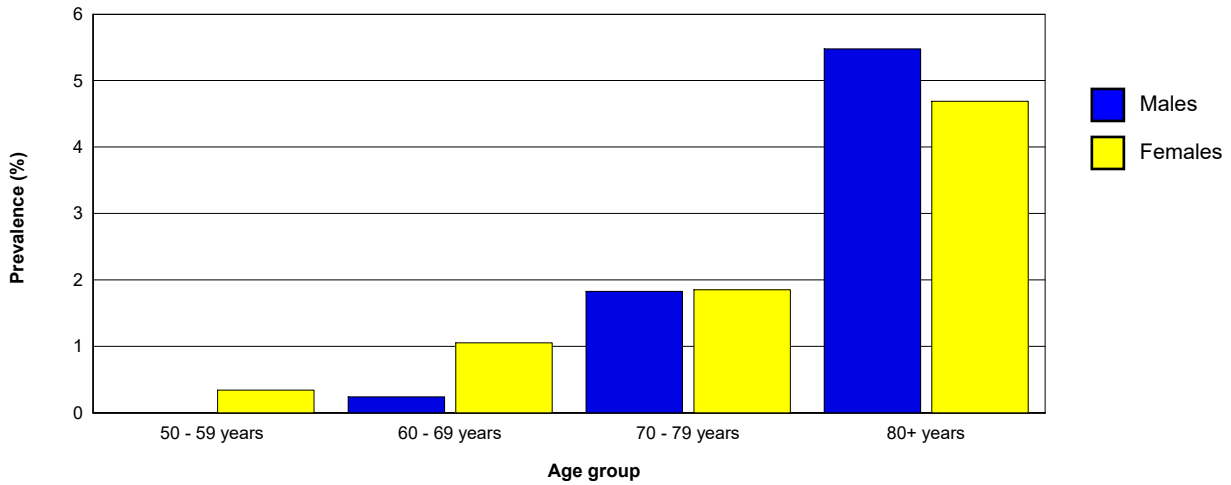
13. Prevalence of MVI eyes - VA<6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	94	8.7%	148	8.4%	242	8.5%
60 - 69 years	152	18.2%	190	20.0%	342	19.1%
70 - 79 years	82	25.0%	106	32.7%	188	28.8%
80+ years	31	21.2%	33	25.8%	64	23.4%
Total	**359**	**15.0%**	**477**	**15.1%**	**836**	**15.0%**



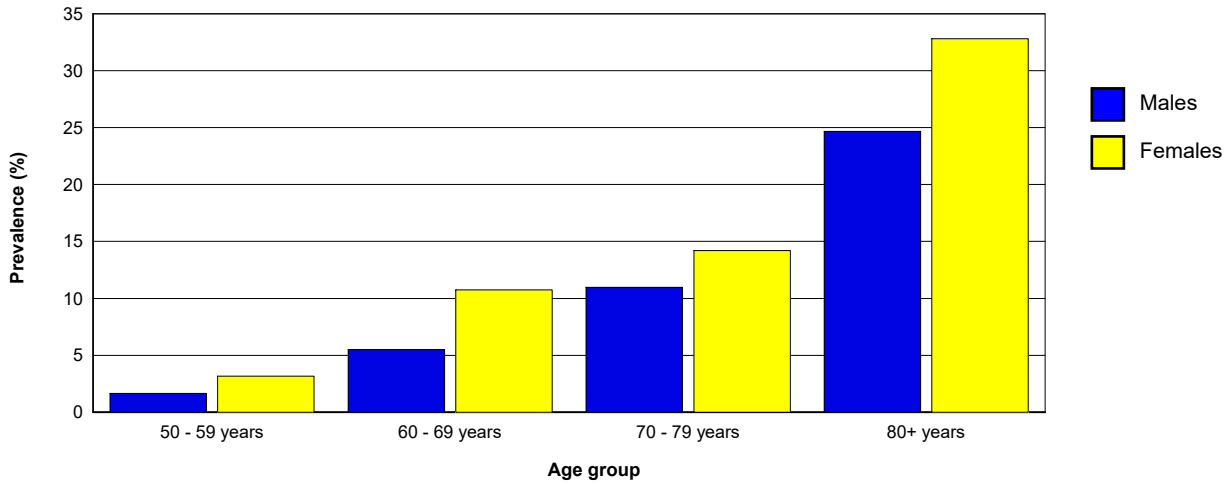
14. Prevalence of people bilateral blind due to cataract - VA<3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	0	0.0%	3	0.3%	3	0.2%
60 - 69 years	1	0.2%	5	1.1%	6	0.7%
70 - 79 years	3	1.8%	3	1.9%	6	1.8%
80+ years	4	5.5%	3	4.7%	7	5.1%
Total	**8**	**0.7%**	**14**	**0.9%**	**22**	**0.8%**



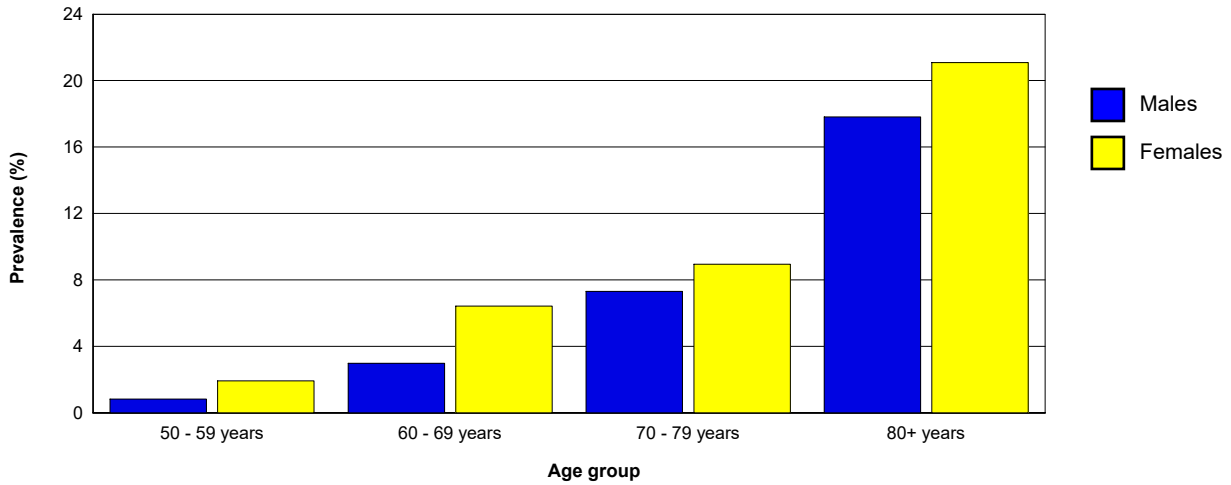
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	9	1.7%	28	3.2%	37	2.6%
60 - 69 years	23	5.5%	51	10.7%	74	8.3%
70 - 79 years	18	11.0%	23	14.2%	41	12.6%
80+ years	18	24.7%	21	32.8%	39	28.5%
Total	**68**	**5.7%**	**123**	**7.8%**	**191**	**6.9%**



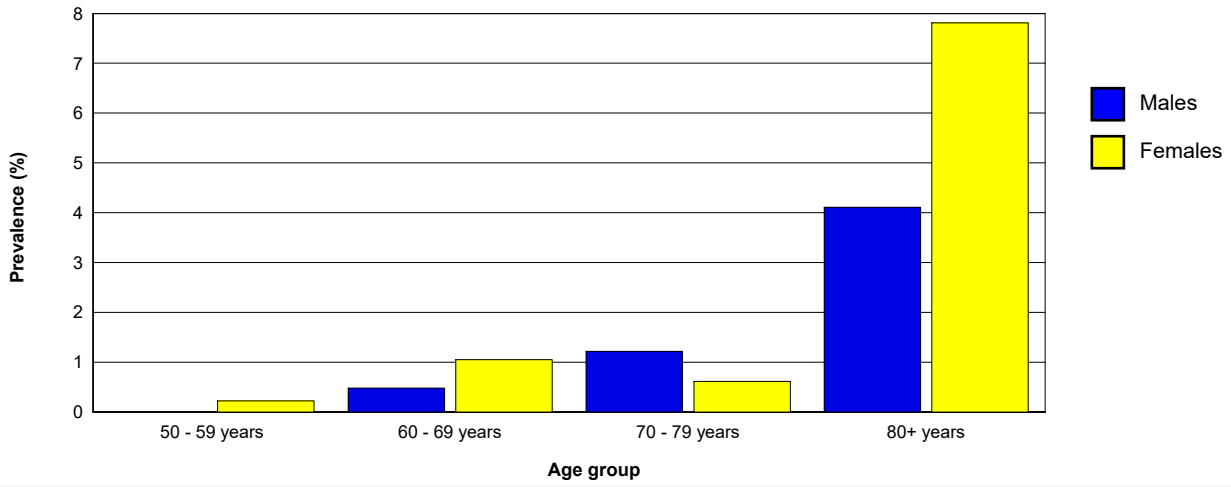
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	9	0.8%	34	1.9%	43	1.5%
60 - 69 years	25	3.0%	61	6.4%	86	4.8%
70 - 79 years	24	7.3%	29	9.0%	53	8.1%
80+ years	26	17.8%	27	21.1%	53	19.3%
Total	**84**	**3.5%**	**151**	**4.8%**	**235**	**4.2%**



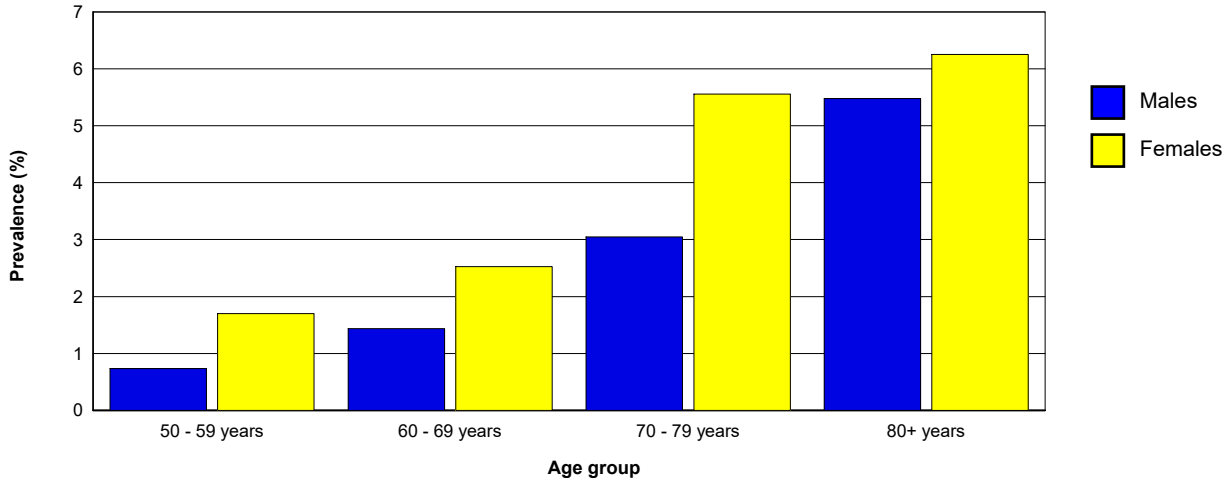
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	0	0.0%	2	0.2%	2	0.1%
60 - 69 years	2	0.5%	5	1.1%	7	0.8%
70 - 79 years	2	1.2%	1	0.6%	3	0.9%
80+ years	3	4.1%	5	7.8%	8	5.8%
Total	**7**	**0.6%**	**13**	**0.8%**	**20**	**0.7%**



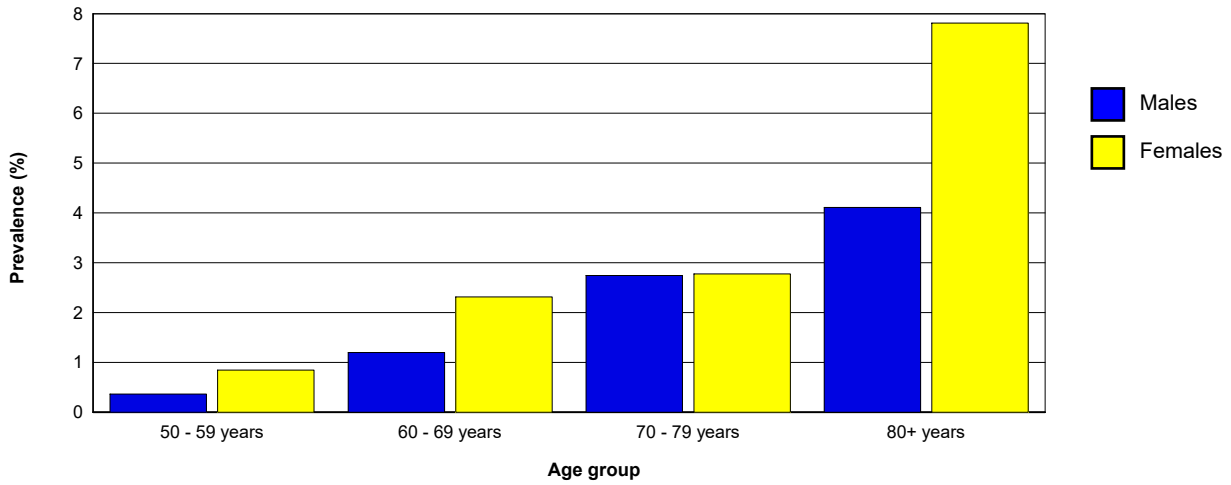
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA<6/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	4	0.7%	15	1.7%	19	1.3%
60 - 69 years	6	1.4%	12	2.5%	18	2.0%
70 - 79 years	5	3.0%	9	5.6%	14	4.3%
80+ years	4	5.5%	4	6.3%	8	5.8%
Total	**19**	**1.6%**	**40**	**2.5%**	**59**	**2.1%**



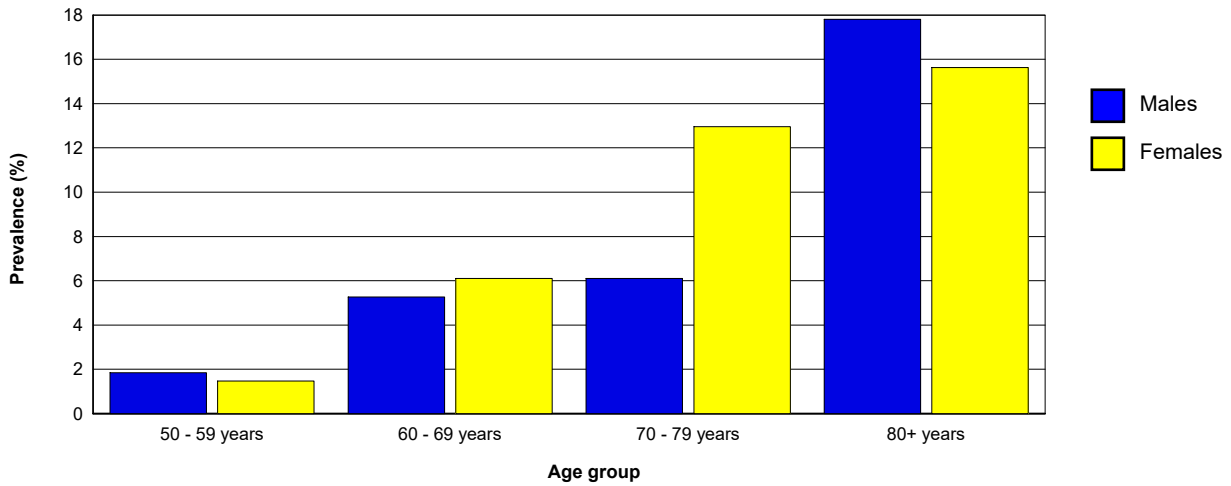
19. Prevalence of cataract SVI eyes - VA<6/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	4	0.4%	15	0.8%	19	0.7%
60 - 69 years	10	1.2%	22	2.3%	32	1.8%
70 - 79 years	9	2.7%	9	2.8%	18	2.8%
80+ years	6	4.1%	10	7.8%	16	5.8%
Total	**29**	**1.2%**	**56**	**1.8%**	**85**	**1.5%**



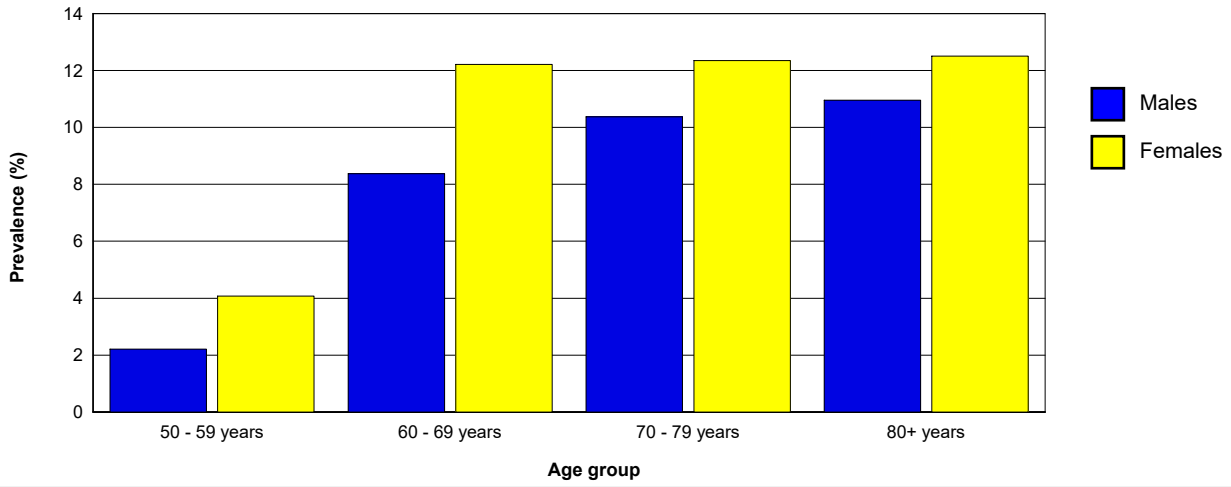
20. Prevalence of people with bilateral moderate visual impairment due to cataract - VA<6/18-6/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	10	1.8%	13	1.5%	23	1.6%
60 - 69 years	22	5.3%	29	6.1%	51	5.7%
70 - 79 years	10	6.1%	21	13.0%	31	9.5%
80+ years	13	17.8%	10	15.6%	23	16.8%
Total	**55**	**4.6%**	**73**	**4.6%**	**128**	**4.6%**



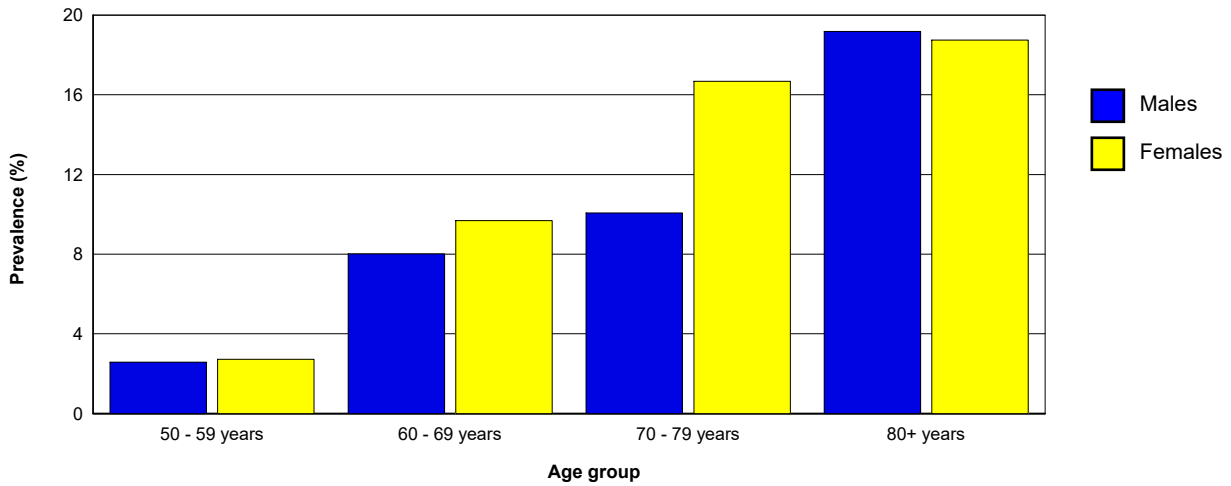
21. Prevalence of people with unilateral moderate visual impairment due to cataract - VA<6/18-6/60 best corrected

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	12	2.2%	36	4.1%	48	3.4%
60 - 69 years	35	8.4%	58	12.2%	93	10.4%
70 - 79 years	17	10.4%	20	12.3%	37	11.3%
80+ years	8	11.0%	8	12.5%	16	11.7%
Total	**72**	**6.0%**	**122**	**7.7%**	**194**	**7.0%**



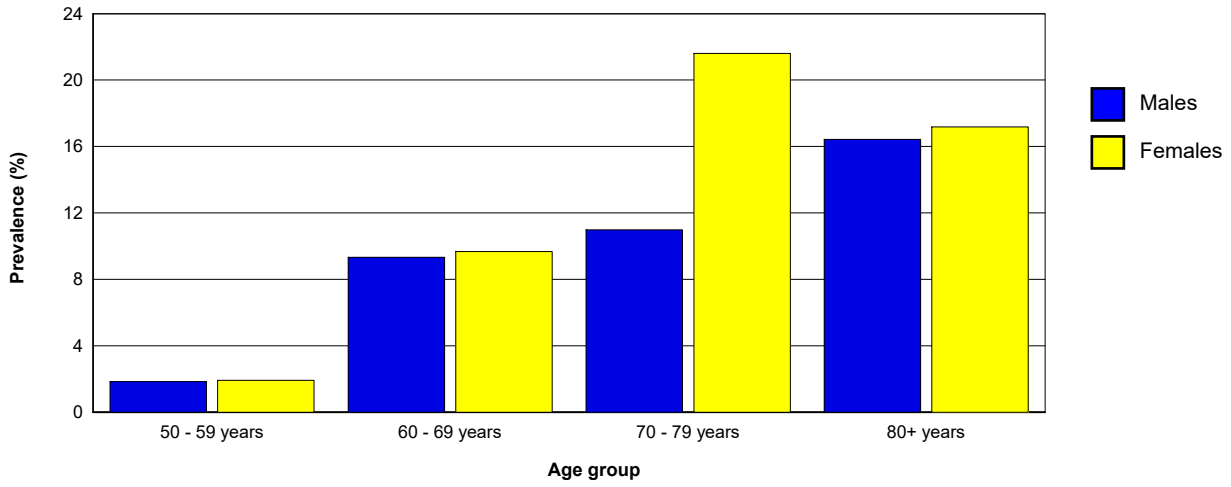
22. Prevalence of cataract MVI eyes - VA <6/18-6/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	28	2.6%	48	2.7%	76	2.7%
60 - 69 years	67	8.0%	92	9.7%	159	8.9%
70 - 79 years	33	10.1%	54	16.7%	87	13.3%
80+ years	28	19.2%	24	18.8%	52	19.0%
Total	**156**	**6.5%**	**218**	**6.9%**	**374**	**6.7%**



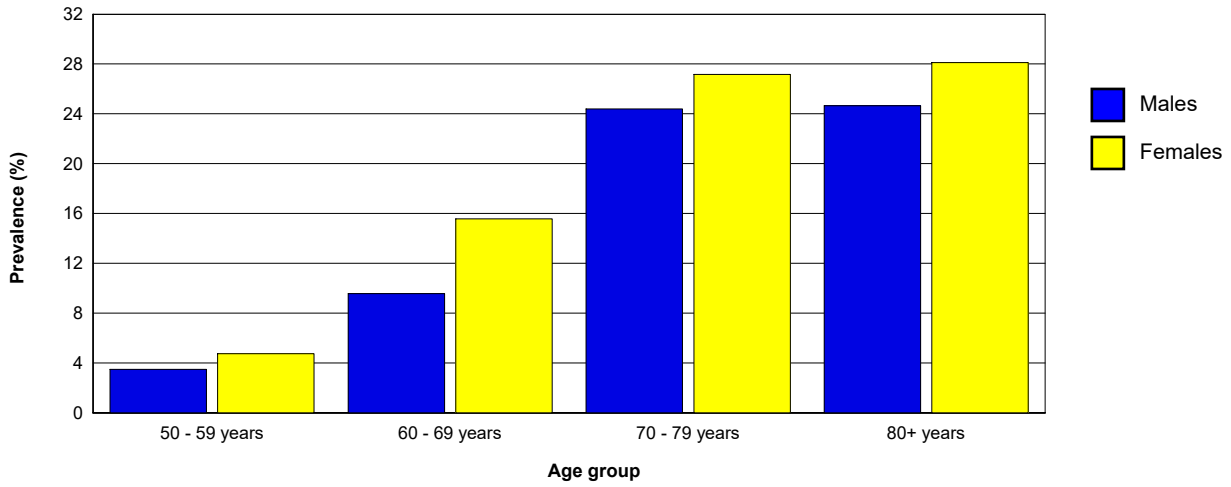
23. Prevalence of people with bilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	10	1.8%	17	1.9%	27	1.9%
60 - 69 years	39	9.3%	46	9.7%	85	9.5%
70 - 79 years	18	11.0%	35	21.6%	53	16.3%
80+ years	12	16.4%	11	17.2%	23	16.8%
Total	**79**	**6.6%**	**109**	**6.9%**	**188**	**6.8%**



24. Prevalence of people with unilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	19	3.5%	42	4.8%	61	4.3%
60 - 69 years	40	9.6%	74	15.6%	114	12.8%
70 - 79 years	40	24.4%	44	27.2%	84	25.8%
80+ years	18	24.7%	18	28.1%	36	26.3%
Total	**117**	**9.8%**	**178**	**11.2%**	**295**	**10.6%**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

AGE AND SEX ADJUSTED PREVALENCE AND ESTIMATED NUMBERS

Date and time of report: 14-Oct-15 5:45:19PM

This report is for the survey area: Bijnor

Year and month when survey was conducted: 2015- 9 until 2015- 9

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.

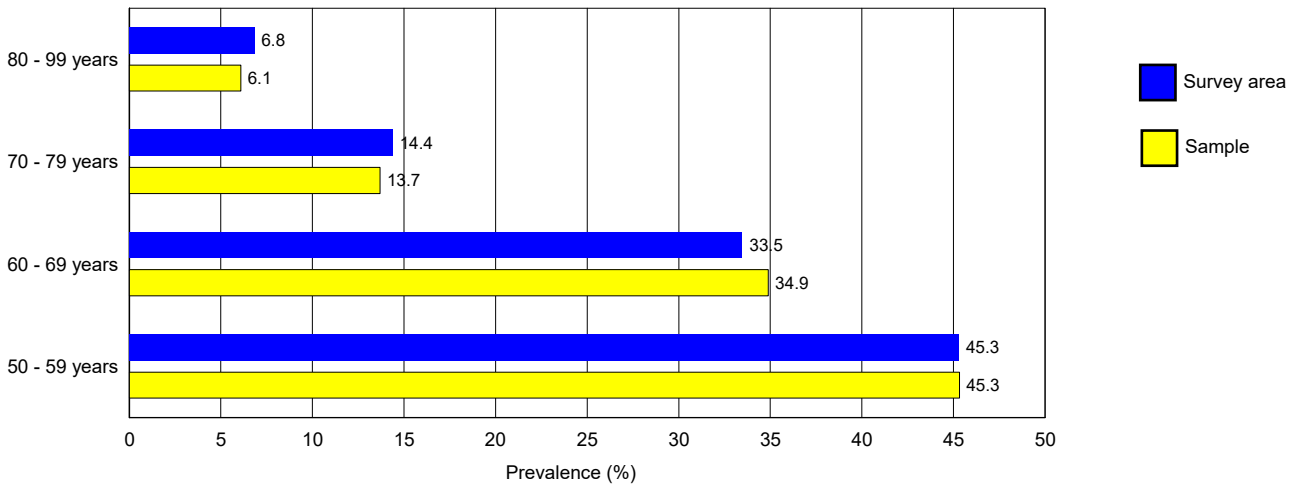
1. Age and sex distribution of people examined in the sample

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	543	45.3%	883	55.7%	**1,426**	**51.3%**
60 - 69 years	418	34.9%	475	30.0%	**893**	**32.1%**
70 - 79 years	164	13.7%	162	10.2%	**326**	**11.7%**
80 - 99 years	73	6.1%	64	4.0%	**137**	**4.9%**
Total	**1,198**	**100.0%**	**1,584**	**100.0%**	**2,782**	**100.0%**

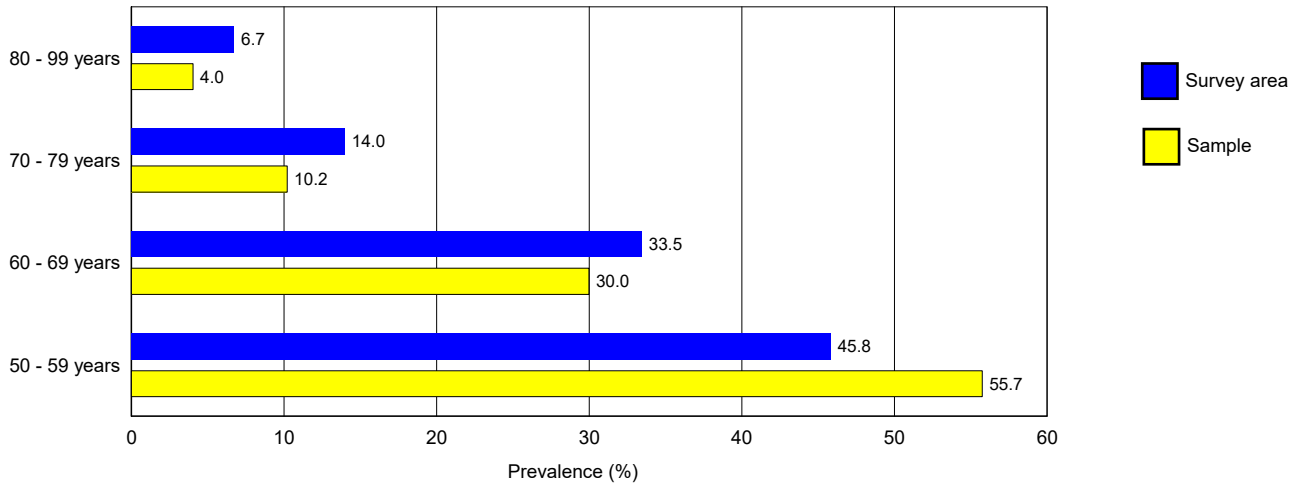
2. Total number of people aged 50+ in survey area

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	105,032	45.3%	100,063	45.8%	**205,095**	**45.6%**
60 - 69 years	77,576	33.5%	73,066	33.5%	**150,642**	**33.5%**
70 - 79 years	33,336	14.4%	30,538	14.0%	**63,874**	**14.2%**
80 - 99 years	15,841	6.8%	14,734	6.7%	**30,575**	**6.8%**
Total	**231,785**	**100.0%**	**218,401**	**100.0%**	**450,186**	**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	5,285	2.3 (1.4 - 3.2)	6,956	3.2 (2.3 - 4.1)	12,241	2.7 (2.1 - 3.3)
All eyes	37,873	8.2 (6.7 - 9.6)	40,028	9.2 (8.0 - 10.3)	77,901	8.7 (7.8 - 9.5)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral cases	7,549	3.3 (2.2 - 4.4)	8,789	4.0 (2.9 - 5.1)	16,338	3.6 (2.9 - 4.4)
All eyes	45,146	9.7 (8.1 - 11.4)	48,744	11.2 (9.9 - 12.4)	93,890	10.4 (9.5 - 11.3)
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral cases	8,895	3.8 (2.7 - 5.0)	7,807	3.6 (2.7 - 4.4)	16,702	3.7 (2.9 - 4.5)
All eyes	23,026	5.0 (4.0 - 6.0)	25,650	5.9 (4.8 - 6.9)	48,676	5.4 (4.6 - 6.2)
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral cases	30,336	13.1 (11.1 - 15.1)	34,845	16.0 (14.0 - 17.9)	65,181	14.5 (13.0 - 15.9)
All eyes	69,787	15.1 (13.4 - 16.7)	73,577	16.8 (15.1 - 18.6)	143,364	15.9 (14.6 - 17.3)
Early visual impairment (EVI) - VA<6/12 - 6/18 in the better eye with available correction						
All bilateral cases	28,985	12.5 (10.2 - 14.8)	32,563	14.9 (12.9 - 17.0)	61,548	13.7 (12.2 - 15.2)
All eyes	57,782	12.5 (10.4 - 14.5)	61,331	14.0 (12.4 - 15.7)	119,113	13.2 (12.0 - 14.5)

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	7,549	3.3 (2.2 - 4.4)	8,789	4.0 (2.9 - 5.1)	16,338	3.6 (2.9 - 4.4)
All eyes	45,146	9.7 (8.1 - 11.4)	48,744	11.2 (9.9 - 12.4)	93,890	10.4 (9.5 - 11.3)
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	16,446	7.1 (5.5 - 8.7)	16,595	7.6 (6.3 - 8.9)	33,041	7.3 (6.4 - 8.3)
All eyes	68,172	14.7 (12.8 - 16.7)	74,393	17.0 (15.4 - 18.7)	142,565	15.8 (14.6 - 17.0)
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	46,781	20.2 (17.9 - 22.4)	51,440	23.6 (21.3 - 25.8)	98,221	21.8 (20.2 - 23.5)
All eyes	137,959	29.8 (27.4 - 32.2)	147,969	33.9 (31.7 - 36.1)	285,928	31.8 (30.1 - 33.5)
VA<6/12 in the better eye, with available correction (presenting VA)						
All bilateral cases	75,766	32.7 (30.2 - 35.2)	84,003	38.5 (35.4 - 41.5)	159,769	35.5 (33.4 - 37.6)
All eyes	195,741	42.2 (39.8 - 44.6)	209,300	47.9 (45.1 - 50.7)	405,041	45.0 (43.0 - 47.0)

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	1,664	0.7 (0.3 - 1.2)	2,366	1.1 (0.6 - 1.6)	4,030	0.9 (0.5 - 1.3)
Unilateral cataract	13,575	5.9 (4.3 - 7.4)	20,189	9.2 (7.9 - 10.6)	33,764	7.5 (6.6 - 8.4)
Cataract eyes	16,901	3.6 (2.8 - 4.5)	24,919	5.7 (4.9 - 6.5)	41,820	4.6 (4.1 - 5.2)
Cataract and SVI - VA<6/60 - 3/60 in better eye with best correction or pinhole						
Bilateral cataract	1,429	0.6 (0.2 - 1.0)	2,336	1.1 (0.7 - 1.5)	3,765	0.8 (0.5 - 1.2)
Unilateral cataract	3,338	1.4 (0.7 - 2.1)	5,287	2.4 (1.7 - 3.2)	8,625	1.9 (1.4 - 2.4)
Cataract eyes	5,761	1.2 (0.7 - 1.8)	9,083	2.1 (1.5 - 2.6)	14,844	1.6 (1.2 - 2.1)
Cataract and Moderate VI (MVI) - VA<6/18 - 6/60 in better eye with best correction or pinhole						
Bilateral cataract	10,871	4.7 (3.8 - 5.6)	12,195	5.6 (4.7 - 6.5)	23,066	5.1 (4.5 - 5.8)
Unilateral cataract	11,450	4.9 (3.7 - 6.2)	14,759	6.8 (5.5 - 8.0)	26,209	5.8 (5.0 - 6.7)
Cataract eyes	30,634	6.6 (5.5 - 7.8)	35,295	8.1 (6.9 - 9.3)	65,929	7.3 (6.5 - 8.1)
Cataract and Early VI (EVI) - VA<6/12 - 6/18 in better eye with best correction or pinhole						
Bilateral cataract	3,740	0.8 (0.4 - 1.2)	3,992	0.9 (0.6 - 1.3)	7,732	0.9 (0.6 - 1.1)
Unilateral cataract	6,547	1.4 (-0.1 - 2.9)	4,921	1.1 (0.1 - 2.1)	11,468	1.3 (0.3 - 2.3)
Cataract eyes	11,835	2.6 (1.7 - 3.4)	10,318	2.4 (1.7 - 3.0)	22,153	2.5 (1.9 - 3.0)

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	1,664	0.7 (0.3 - 1.2)	2,366	1.1 (0.6 - 1.6)	4,030	0.9 (0.5 - 1.3)
Unilateral cataract	13,575	5.9 (4.3 - 7.4)	20,189	9.2 (7.9 - 10.6)	33,764	7.5 (6.6 - 8.4)
Cataract eyes	16,901	3.6 (2.8 - 4.5)	24,919	5.7 (4.9 - 6.5)	41,820	4.6 (4.1 - 5.2)
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	3,092	1.3 (0.8 - 1.9)	4,701	2.2 (1.5 - 2.8)	7,793	1.7 (1.2 - 2.2)
Unilateral cataract	16,912	7.3 (5.6 - 9.0)	25,476	11.7 (10.3 - 13.1)	42,388	9.4 (8.4 - 10.4)
Cataract eyes	22,663	4.9 (3.9 - 5.9)	34,001	7.8 (6.8 - 8.8)	56,664	6.3 (5.6 - 7.0)
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	13,963	6.0 (4.8 - 7.2)	16,896	7.7 (6.7 - 8.8)	30,859	6.9 (6.0 - 7.7)
Unilateral cataract	28,362	12.2 (10.0 - 14.5)	40,236	18.4 (16.4 - 20.5)	68,598	15.2 (13.7 - 16.7)
Cataract eyes	53,297	11.5 (9.8 - 13.2)	69,297	15.9 (14.2 - 17.5)	122,594	13.6 (12.5 - 14.7)
Cataract and VA<6/12 with best correction or pinhole						
Bilateral cataract	17,703	7.6 (6.4 - 8.8)	20,888	9.6 (8.5 - 10.7)	38,591	8.6 (7.7 - 9.4)
Unilateral cataract	34,910	15.1 (12.5 - 17.6)	45,157	20.7 (18.3 - 23.0)	80,067	17.8 (15.9 - 19.7)
Cataract eyes	65,131	14.1 (12.3 - 15.8)	79,616	18.2 (16.5 - 19.9)	144,747	16.1 (14.9 - 17.3)

9. Adjusted results for aphakia and pseudophakia

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Bilateral (pseudo)aphakia	15,435	6.7 (5.1 - 8.3)	18,132	8.3 (7.0 - 9.6)	33,567	7.5 (6.4 - 8.5)
Unilateral (pseudo)aphakia	23,136	10.0 (8.1 - 11.8)	28,581	13.1 (11.7 - 14.4)	51,717	11.5 (10.4 - 12.6)
Eyes (pseudo)aphakia	54,006	11.7 (9.9 - 13.4)	64,846	14.8 (13.4 - 16.3)	118,852	13.2 (12.0 - 14.4)

10. Adjusted results for cataract surgical coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	76.2	72.2	74.0
VA < 6/60	70.4	65.6	67.7
VA < 6/18	50.3	48.3	49.2
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	94.5	93.6	94.0
VA < 6/60	90.9	89.2	89.9
VA < 6/18	72.3	72.9	72.6