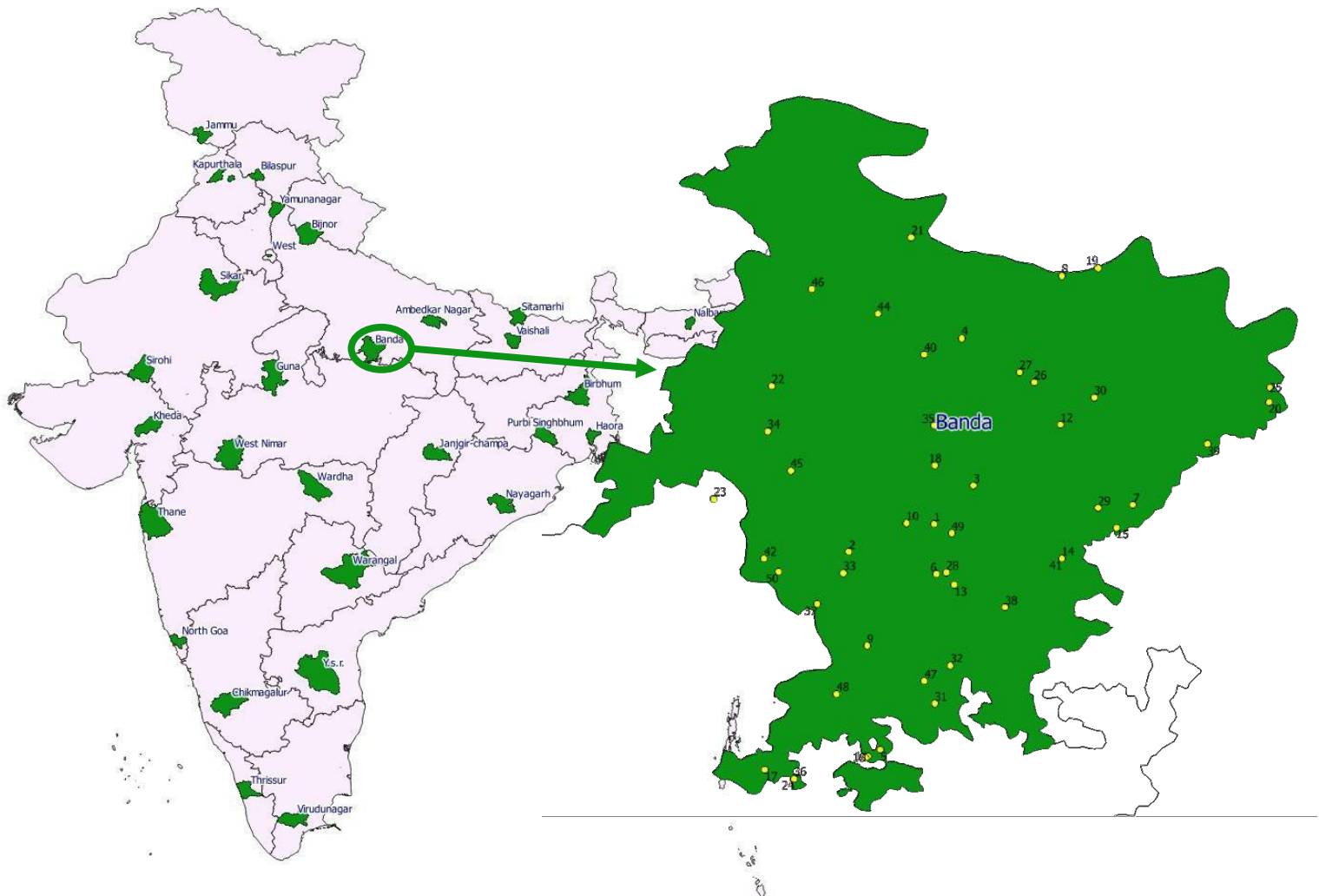


NPCB National Blindness Survey: 2015-2018

DISTRICT SUMMARY REPORT

Banda, Uttar Pradesh





NPCB National Blindness Survey: 2015-2018

DISTRICT SUMMARY REPORT

Banda, Uttar Pradesh

April 2017

Praveen Vashist, Suraj S Senjam, Vivek Gupta, Noopur Gupta,
V Rajshekhar, BR Shamanna, Promila Gupta, Atul Kumar



Community Ophthalmology
Dr. Rajendra Prasad Centre for Ophthalmic Sciences
AIIMS, New Delhi - 110029



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SUMMARY REPORT

Date and time of report: 27-Sep-16 12:27:59PM

This report is for the survey area: BANDA

Year and month when survey was conducted: 2016- 8 until 2016- 8

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	1,347	90.5%	138	9.3%	4	0.3%	0	0.0%	1,489	100.0%
Females	1,395	92.3%	113	7.5%	2	0.1%	1	0.1%	1,511	100.0%
Total	2,742	91.4%	251	8.4%	6	0.2%	1	0.0%	3,000	100.0%

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

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	540	40.1%	654	46.9%	1,194	43.5%
60 - 69 years	426	31.6%	464	33.3%	890	32.5%
70 - 79 years	257	19.1%	210	15.1%	467	17.0%
80+ years	124	9.2%	67	4.8%	191	7.0%
Total	1,347	100.0%	1,395	100.0%	2,742	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	30	2.2 (1.3 - 3.2)	30	2.2 (1.5 - 2.8)	60	2.2 (1.6 - 2.7)
Severe VI	15	1.1 (0.6 - 1.7)	34	2.4 (1.4 - 3.4)	49	1.8 (1.2 - 2.4)
Moderate VI	94	7.0 (5.5 - 8.4)	116	8.3 (6.7 - 10.0)	210	7.7 (6.4 - 8.9)
Early VI	161	12.0 (9.9 - 14.0)	185	13.3 (11.2 - 15.3)	346	12.6 (11.1 - 14.1)
Functional Low Vision	22	1.6 (1.0 - 2.2)	23	1.7 (0.9 - 2.4)	45	1.6 (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	2,672	1.9 (1.0 - 2.8)	3,117	2.5 (1.9 - 3.1)	5,789	2.2 (1.6 - 2.7)
Severe VI	1,350	1.0 (0.4 - 1.5)	3,385	2.7 (1.7 - 3.7)	4,736	1.8 (1.2 - 2.4)
Moderate VI	9,051	6.5 (5.0 - 7.9)	11,230	8.9 (7.3 - 10.6)	20,285	7.7 (6.4 - 8.9)
Early VI	15,867	11.4 (9.3 - 13.4)	17,685	14.1 (12.0 - 16.2)	33,552	12.7 (11.2 - 14.1)
Functional Low Vision	1,966	1.4 (0.8 - 2.0)	2,382	1.9 (1.2 - 2.6)	4,348	1.6 (1.2 - 2.1)

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)	1	0.2 (0.0 - 0.5)	2	0.2 (0.0 - 0.4)
60 - 69 years	6	1.4 (0.3 - 2.5)	9	1.9 (0.8 - 3.1)	15	1.7 (1.0 - 2.4)
70 - 79 years	8	3.1 (0.9 - 5.3)	7	3.3 (1.0 - 5.7)	15	3.2 (1.5 - 5.0)
80+ years	15	12.1 (6.1 - 18.0)	13	19.4 (11.4 - 27.5)	28	14.7 (9.8 - 19.5)
All 50+ years	30	2.2 (1.3 - 3.2)	30	2.2 (1.5 - 2.8)	60	2.2 (1.6 - 2.7)

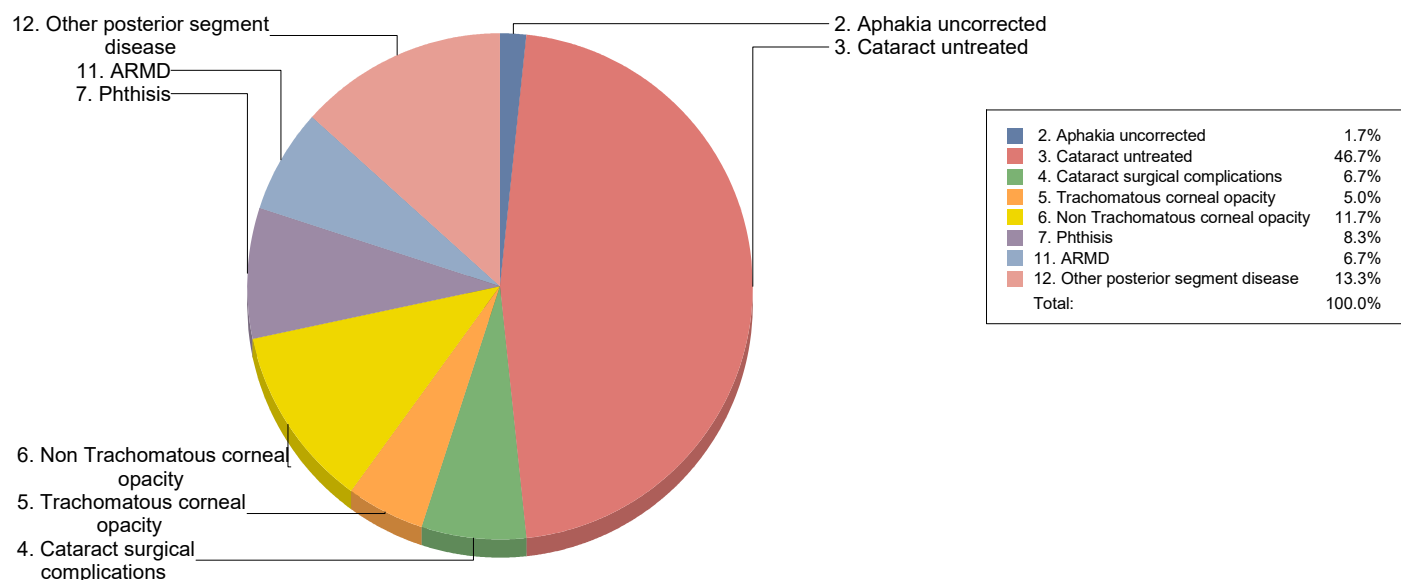
6. Principal cause of blindness, severe (SVI), moderate (MVI) and early (EVI) visual impairment in persons (PVA)

	Blindness		Severe VI		Moderate VI		Early VI	
	n	%	n	%	n	%	n	%
1. Refractive error	0	0.0%	0	0.0%	33	15.7%	199	57.5%
2. Aphakia uncorrected	1	1.7%	0	0.0%	1	0.5%	1	0.3%
3. Cataract untreated	28	46.7%	33	67.3%	153	72.9%	110	31.8%
4. Cataract surgical complications	4	6.7%	7	14.3%	13	6.2%	26	7.5%
5. Trachomatous corneal opacity	3	5.0%	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	7	11.7%	1	2.0%	3	1.4%	2	0.6%
7. Phthisis	5	8.3%	0	0.0%	1	0.5%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	0	0.0%	2	4.1%	1	0.5%	1	0.3%
10. Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%	0	0.0%
11. ARMD	4	6.7%	0	0.0%	0	0.0%	2	0.6%
12. Other posterior segment disease	8	13.3%	6	12.2%	5	2.4%	5	1.4%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	60	100.0%	49	100.0%	210	100.0%	346	100.0%

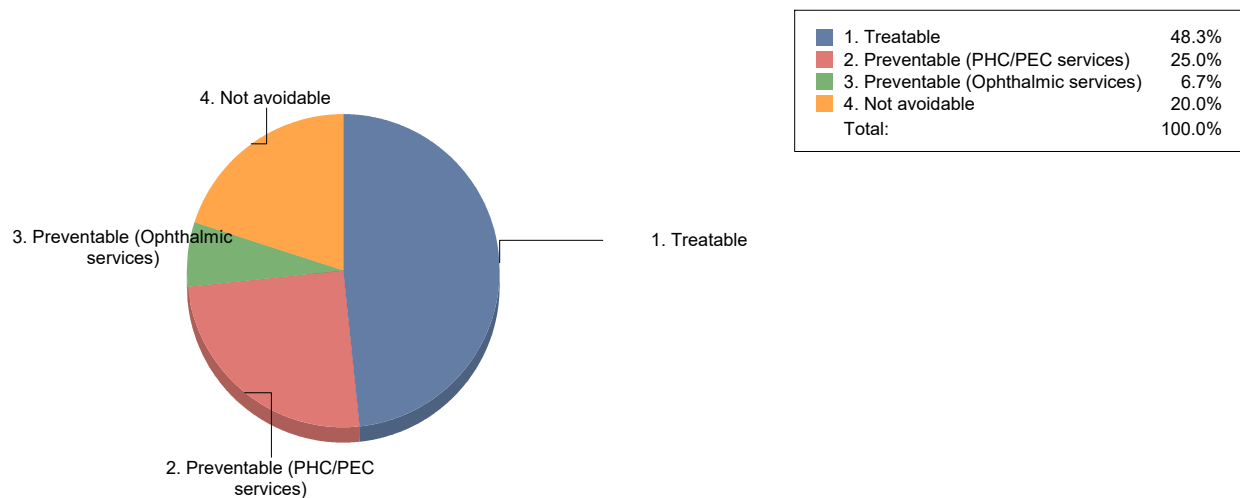
Blindness, SVI, MVI and EVI in persons by intervention category

A. Treatable (1,2,3)	29	48.3%	33	67.4%	187	89.1%	310	89.6%
B. Preventable (PHC/PEC services) (5,6,7,8)	15	25.0%	1	2.0%	4	1.9%	2	0.6%
C. Preventable (Ophthalmic services) (4,9,10)	4	6.7%	9	18.4%	14	6.7%	27	7.8%
D. Avoidable (A+B+C)	48	80.0%	43	87.8%	205	97.6%	339	98.0%
E. Posterior segment causes (8,9,10,11,12)	12	20.0%	8	16.3%	6	2.9%	8	2.3%

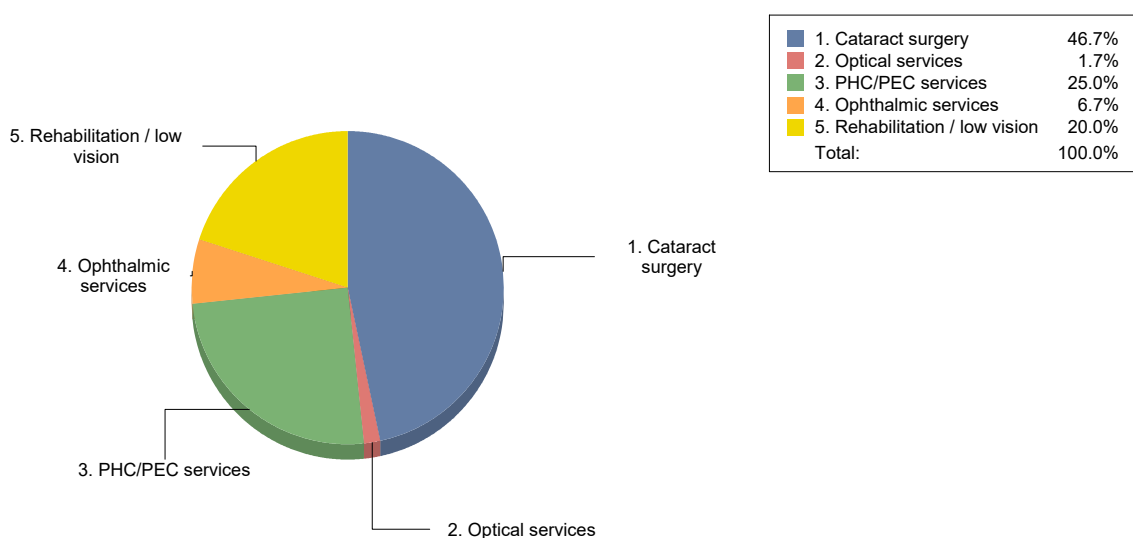
7. Graph: main cause of blindness in persons



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	96.3	95.1	95.7
VA < 6/60	93.8	89.3	91.5
VA < 6/18	84.8	78.5	81.5

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

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	3	23.1%	8	33.3%	11	29.7%
Fear	0	0.0%	2	8.3%	2	5.4%
Cost	4	30.8%	5	20.8%	9	24.3%
Treatment denied by provider	0	0.0%	0	0.0%	0	0.0%
Unaware treatment is possible	2	15.4%	2	8.3%	4	10.8%
Cannot access treatment	0	0.0%	4	16.7%	4	10.8%
Local reason	4	30.8%	3	12.5%	7	18.9%
Total	13	100.0%	24	100.0%	37	100.0%

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

	Males		Females		Total	
	n	%	n	%	n	%
Very good: can see 6/12	273	60.7%	251	55.5%	524	58.1%
Good: can see 6/18	69	15.3%	93	20.6%	162	18.0%
Borderline: can see 6/60	46	10.2%	49	10.8%	95	10.5%
Poor: cannot see 6/60	62	13.8%	59	13.1%	121	13.4%
Total	450	100.0%	452	100.0%	902	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	14	19.4%	510	61.7%	524	58.3%
Good: can see 6/18	17	23.6%	145	17.5%	162	18.0%
Borderline: can see 6/60	12	16.7%	83	10.0%	95	10.6%
Poor: cannot see 6/60	29	40.3%	89	10.8%	118	13.1%
Total	72	100.0%	827	100.0%	899	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%	524	100.0%
Good: can see 6/18	15	15.3%	60	38.0%	86	81.1%	1	6.3%	0	0.0%
Borderline: can see 6/60	20	20.4%	55	34.8%	15	14.2%	5	31.3%	0	0.0%
Poor: cannot see 6/60	63	64.3%	43	27.2%	5	4.7%	10	62.5%	0	0.0%
Total	98	100.0%	158	100.0%	106	100.0%	16	100.0%	524	100.0%

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report: 27-Sep-16 12:31:37PM
 This report is for the survey area: BANDA
 Year and month when survey was conducted: 2016- 8 until 2016- 8

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	1,347	90.5%	138	9.3%	4	0.3%	0	0.0%	1,489	100.0%
Females	1,395	92.3%	113	7.5%	2	0.1%	1	0.1%	1,511	100.0%
Total	2,742	91.4%	251	8.4%	6	0.2%	1	0.0%	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	29	2.2% (1.2-3.1)	30	2.2% (1.5-2.8)	59	2.2% (1.6-2.7)
All blind eyes	171	6.4% (5.3-7.4)	214	7.7% (6.6-8.7)	385	7.0% (6.2-7.8)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	30	2.2% (1.3-3.2)	30	2.2% (1.5-2.8)	60	2.2% (1.6-2.7)
All blind eyes	178	6.6% (5.5-7.7)	219	7.9% (6.8-8.9)	397	7.2% (6.4-8.1)
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral Severe VI	15	1.1% (0.6-1.7)	34	2.4% (1.4-3.4)	49	1.8% (1.2-2.4)
All Severe VI eyes	63	2.3% (1.7-3.0)	102	3.7% (2.8-4.5)	165	3.0% (2.4-3.6)
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral MVI	94	7.0% (5.5-8.4)	116	8.3% (6.7-10.0)	210	7.7% (6.4-8.9)
All Moderate VI eyes	261	9.7% (8.1-11.2)	279	10.0% (8.3-11.7)	540	9.9% (8.6-11.1)
Early visual impairment (EVI) - VA<6/12 - 6/18 in the better eye with available correction						
All bilateral EVI	161	12.0% (9.9-14.0)	185	13.3% (11.2-15.3)	346	12.6% (11.1-14.1)
All Early VI eyes	391	14.5% (12.6-16.5)	413	14.8% (12.9-16.7)	804	14.7% (13.1-16.2)

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	30	2.2% (1.3-3.2)	30	2.2% (1.5-2.8)	60	2.2% (1.6-2.7)
All blind eyes	178	6.6% (5.5-7.7)	219	7.9% (6.8-8.9)	397	7.2% (6.4-8.1)
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	45	3.3% (2.2-4.4)	64	4.6% (3.5-5.7)	109	4.0% (3.2-4.8)
All eyes	241	9.0% (7.5-10.4)	321	11.5% (10.1-12.9)	562	10.3% (9.2-11.3)
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	139	10.3% (8.7-11.9)	180	12.9% (10.9-14.9)	319	11.6% (10.2-13.1)
All eyes	502	18.6% (16.8-20.5)	600	21.5% (19.4-23.6)	1,102	20.1% (18.6-21.6)
VA<6/12 in the better eye, with available correction (presenting VA)						
All bilateral cases	300	22.3% (19.8-24.7)	365	26.2% (23.4-29.0)	665	24.3% (22.2-26.3)
All eyes	893	33.2% (30.5-35.8)	1,013	36.3% (34.0-38.7)	1,906	34.8% (32.8-36.7)

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	1	3.3%	0	0.0%	1	1.7%
3. Cataract untreated	11	36.7%	17	56.7%	28	46.7%
4. Cataract surgical complications	1	3.3%	3	10.0%	4	6.7%
5. Trachomatous corneal opacity	1	3.3%	2	6.7%	3	5.0%
6. Non Trachomatous corneal opacity	4	13.3%	3	10.0%	7	11.7%
7. Phthisis	2	6.7%	3	10.0%	5	8.3%
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	4	13.3%	0	0.0%	4	6.7%
12. Other posterior segment disease	6	20.0%	2	6.7%	8	13.3%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	30	100.0%	30	100.0%	60	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	12	40.0%	17	56.7%	29	48.3%
B. Preventable (PHC/PEC services) (5,6,7,8)	7	23.3%	8	26.7%	15	25.0%
C. Preventable (Ophthalmic services) (4,9,10)	1	3.3%	3	10.0%	4	6.7%
D. Avoidable (A+B+C)	20	66.7%	28	93.3%	48	80.0%
E. Posterior segment causes (8,9,10,11,12)	10	33.3%	2	6.7%	12	20.0%

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	1.7%	0	0.0%	3	0.8%
3. Cataract untreated	68	38.2%	116	53.0%	184	46.3%
4. Cataract surgical complications	13	7.3%	15	6.8%	28	7.1%
5. Trachomatous corneal opacity	3	1.7%	7	3.2%	10	2.5%
6. Non Trachomatous corneal opacity	30	16.9%	32	14.6%	62	15.6%
7. Phthisis	14	7.9%	17	7.8%	31	7.8%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	6	3.4%	7	3.2%	13	3.3%
10. Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
11. ARMD	8	4.5%	0	0.0%	8	2.0%
12. Other posterior segment disease	31	17.4%	21	9.6%	52	13.1%
13. All other globe/CNS abnormalities	2	1.1%	4	1.8%	6	1.5%
Total	178	100.0%	219	100.0%	397	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	71	39.9%	116	53.0%	187	47.1%
B. Preventable (PHC/PEC services) (5,6,7,8)	47	26.4%	56	25.6%	103	25.9%
C. Preventable (Ophthalmic services) (4,9,10)	19	10.7%	22	10.0%	41	10.3%
D. Avoidable (A+B+C)	137	77.0%	194	88.6%	331	83.4%
E. Posterior segment causes (8,9,10,11,12)	45	25.3%	28	12.8%	73	18.4%

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	80.0%	21	61.8%	33	67.3%
4. Cataract surgical complications	1	6.7%	6	17.6%	7	14.3%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	0	0.0%	1	2.9%	1	2.0%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	0	0.0%	2	5.9%	2	4.1%
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	2	13.3%	4	11.8%	6	12.2%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	15	100.0%	34	100.0%	49	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	12	80.0%	21	61.8%	33	67.4%
B. Preventable (PHC/PEC services) (5,6,7,8)	0	0.0%	1	2.9%	1	2.0%
C. Preventable (Ophthalmic services) (4,9,10)	1	6.7%	8	23.5%	9	18.4%
D. Avoidable (A+B+C)	13	86.7%	30	88.2%	43	87.8%
E. Posterior segment causes (8,9,10,11,12)	2	13.3%	6	17.7%	8	16.3%

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	0	0.0%	1	1.0%	1	0.6%
2. Aphakia uncorrected	2	3.2%	2	2.0%	4	2.4%
3. Cataract untreated	51	81.0%	70	68.6%	121	73.3%
4. Cataract surgical complications	5	7.9%	10	9.8%	15	9.1%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	2	3.2%	4	3.9%	6	3.6%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	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%	1	1.0%	1	0.6%
12. Other posterior segment disease	3	4.8%	13	12.7%	16	9.7%
13. All other globe/CNS abnormalities	0	0.0%	1	1.0%	1	0.6%
Total	63	100.0%	102	100.0%	165	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	53	84.1%	73	71.6%	126	76.4%
B. Preventable (PHC/PEC services) (5,6,7,8)	2	3.2%	4	3.9%	6	3.6%
C. Preventable (Ophthalmic services) (4,9,10)	5	7.9%	10	9.8%	15	9.1%
D. Avoidable (A+B+C)	60	95.2%	87	85.3%	147	89.1%
E. Posterior segment causes (8,9,10,11,12)	3	4.8%	14	13.7%	17	10.3%

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	17	18.1%	16	13.8%	33	15.7%
2. Aphakia uncorrected	0	0.0%	1	0.9%	1	0.5%
3. Cataract untreated	67	71.3%	86	74.1%	153	72.9%
4. Cataract surgical complications	5	5.3%	8	6.9%	13	6.2%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	2	2.1%	1	0.9%	3	1.4%
7. Phthisis	1	1.1%	0	0.0%	1	0.5%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	0	0.0%	1	0.9%	1	0.5%
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	2.1%	3	2.6%	5	2.4%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	94	100.0%	116	100.0%	210	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	84	89.4%	103	88.8%	187	89.1%
B. Preventable (PHC/PEC services) (5,6,7,8)	3	3.2%	1	0.9%	4	1.9%
C. Preventable (Ophthalmic services) (4,9,10)	5	5.3%	9	7.8%	14	6.7%
D. Avoidable (A+B+C)	92	97.9%	113	97.4%	205	97.6%
E. Posterior segment causes (8,9,10,11,12)	2	2.1%	4	3.5%	6	2.9%

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	15.7%	38	13.6%	79	14.6%
2. Aphakia uncorrected	0	0.0%	1	0.4%	1	0.2%
3. Cataract untreated	180	69.0%	191	68.5%	371	68.7%
4. Cataract surgical complications	24	9.2%	32	11.5%	56	10.4%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	4	1.5%	5	1.8%	9	1.7%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	0	0.0%	2	0.7%	2	0.4%
10. Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
11. ARMD	2	0.8%	1	0.4%	3	0.6%
12. Other posterior segment disease	10	3.8%	8	2.9%	18	3.3%
13. All other globe/CNS abnormalities	0	0.0%	1	0.4%	1	0.2%
Total	261	100.0%	279	100.0%	540	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	221	84.7%	230	82.4%	451	83.5%
B. Preventable (PHC/PEC services) (5,6,7,8)	4	1.5%	5	1.8%	9	1.7%
C. Preventable (Ophthalmic services) (4,9,10)	24	9.2%	34	12.2%	58	10.7%
D. Avoidable (A+B+C)	249	95.4%	269	96.4%	518	95.9%
E. Posterior segment causes (8,9,10,11,12)	12	4.6%	11	3.9%	23	4.3%

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	96	59.6%	103	55.7%	199	57.5%
2. Aphakia uncorrected	1	0.6%	0	0.0%	1	0.3%
3. Cataract untreated	49	30.4%	61	33.0%	110	31.8%
4. Cataract surgical complications	11	6.8%	15	8.1%	26	7.5%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	1	0.6%	1	0.5%	2	0.6%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	1	0.6%	0	0.0%	1	0.3%
10. Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
11. ARMD	1	0.6%	1	0.5%	2	0.6%
12. Other posterior segment disease	1	0.6%	4	2.2%	5	1.4%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	161	100.0%	185	100.0%	346	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	146	90.7%	164	88.7%	310	89.6%
B. Preventable (PHC/PEC services) (5,6,7,8)	1	0.6%	1	0.5%	2	0.6%
C. Preventable (Ophthalmic services) (4,9,10)	12	7.5%	15	8.1%	27	7.8%
D. Avoidable (A+B+C)	159	98.8%	180	97.3%	339	98.0%
E. Posterior segment causes (8,9,10,11,12)	3	1.9%	5	2.7%	8	2.3%

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	59.1%	224	54.2%	455	56.6%
2. Aphakia uncorrected	0	0.0%	0	0.0%	0	0.0%
3. Cataract untreated	133	34.0%	136	32.9%	269	33.5%
4. Cataract surgical complications	20	5.1%	40	9.7%	60	7.5%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	2	0.5%	6	1.5%	8	1.0%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	1	0.3%	0	0.0%	1	0.1%
10. Diabetic retinopathy	1	0.3%	0	0.0%	1	0.1%
11. ARMD	1	0.3%	1	0.2%	2	0.2%
12. Other posterior segment disease	2	0.5%	5	1.2%	7	0.9%
13. All other globe/CNS abnormalities	0	0.0%	1	0.2%	1	0.1%
Total	391	100.0%	413	100.0%	804	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	364	93.1%	360	87.2%	724	90.0%
B. Preventable (PHC/PEC services) (5,6,7,8)	2	0.5%	6	1.5%	8	1.0%
C. Preventable (Ophthalmic services) (4,9,10)	22	5.6%	40	9.7%	62	7.7%
D. Avoidable (A+B+C)	388	99.2%	406	98.3%	794	98.8%
E. Posterior segment causes (8,9,10,11,12)	5	1.3%	6	1.5%	11	1.4%

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	7	0.5% (0.1-0.9)	10	0.7% (0.3-1.1)	17	0.6% (0.3-0.9)
Unilateral cataract	56	4.2% (3.0-5.3)	101	7.2% (5.7-8.8)	157	5.7% (4.6-6.8)
Cataract eyes	70	2.6% (1.9-3.3)	121	4.3% (3.5-5.1)	191	3.5% (2.9-4.0)
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	13	1.0% (0.4-1.5)	24	1.7% (1.1-2.3)	37	1.4% (0.9-1.8)
Unilateral cataract	80	5.9% (5.6-8.7)	120	8.6% (7.9-10.6)	200	7.3% (7.2-9.2)
Cataract eyes	106	3.9% (3.1-4.8)	168	6.0% (5.0-7.1)	274	5.0% (4.3-5.7)
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	37	2.8% (1.7-3.8)	60	4.3% (3.1-5.5)	97	3.5% (2.6-4.5)
Unilateral cataract	131	9.7% (8.0-11.5)	166	11.9% (10.0-13.8)	297	10.8% (9.6-12.0)
Cataract eyes	205	7.6% (6.4-8.8)	286	10.3% (8.6-11.9)	491	9.0% (7.9-10.0)
Cataract and VA<6/12 with best correction or pinhole						
Bilateral cataract	114	8.5% (6.9-10.1)	149	10.7% (8.8-12.5)	263	9.6% (8.2-10.9)
Unilateral cataract	210	15.6% (13.3-17.9)	223	16.0% (14.4-17.6)	433	15.8% (14.3-17.2)
Cataract eyes	438	16.3% (14.4-18.1)	521	18.7% (16.8-20.6)	959	17.5% (16.2-18.8)

13. Sample prevalence of (pseudo)aphakia

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Bilateral (pseudo)aphakia	157	11.7% (9.6-13.7)	150	10.8% (8.9-12.6)	307	11.2% (9.7-12.7)
Unilateral (pseudo)aphakia	136	10.1% (8.4-11.8)	152	10.9% (9.3-12.5)	288	10.5% (9.3-11.7)
(Pseudo)aphakic eyes	450	16.7% (14.5-18.9)	452	16.2% (14.3-18.1)	902	16.5% (14.8-18.1)

14. Cataract Surgical Coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	86.5	78.9	82.5
VA < 6/60	80.9	72.9	76.7
VA < 6/18	68.7	61.3	64.8
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	96.3	95.1	95.7
VA < 6/60	93.8	89.3	91.5
VA < 6/18	84.8	78.5	81.5

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

	Males		Females		Total	
	n	%	n	%	n	%
First eyes	293	65.1	302	66.8	595	66.0
Second eyes	157	34.9	150	33.2	307	34.0

16. Uncorrected refractive error and uncorrected presbyopia

	Males		Females		Total	
	n	%	n	%	n	%
Total refractive errors	317	23.5	283	20.3	600	21.9
Uncorrected refractive errors	115	8.5	120	8.6	235	8.6
Uncorrected presbyopia	1,111	82.5	1,270	91.0	2,381	86.8

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

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59	1	0.2	2	0.3	3	0.3
60 - 69	3	0.7	5	1.1	8	0.9
70 - 79	8	3.1	5	2.4	13	2.8
80+	10	8.1	11	16.4	21	11.0
Total	22	1.6	23	1.7	45	1.6

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	3	13.6%	6	26.1%	9	20.0%
5. Trachomatous corneal opacity	1	4.5%	2	8.7%	3	6.7%
6. Non Trachomatous corneal opacity	4	18.2%	5	21.7%	9	20.0%
7. Phthisis	1	4.5%	0	0.0%	1	2.2%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	0	0.0%	2	8.7%	2	4.4%
10. Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
11. ARMD	4	18.2%	0	0.0%	4	8.9%
12. Other posterior segment disease	9	40.9%	8	34.8%	17	37.8%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	22	100.0%	23	100.0%	45	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)	6	27.3%	7	30.4%	13	28.9%
C. Preventable (Ophthalmic services) (4,9,10)	3	13.6%	8	34.8%	11	24.4%
D. Avoidable (A+B+C)	9	40.9%	15	65.2%	24	53.3%
E. Posterior segment causes (8,9,10,11,12)	13	59.1%	10	43.5%	23	51.1%

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+	15	50.0	8	26.7	23	38.3
BCVA<6/60 - 3/60	2	13.3	6	17.7	8	16.3
BCVA<6/18 - 6/60	5	5.3	9	7.8	14	6.7
Total	22	15.8	23	12.8	45	14.1

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

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

Date and time of report: 27-Sep-16 12:31:52PM

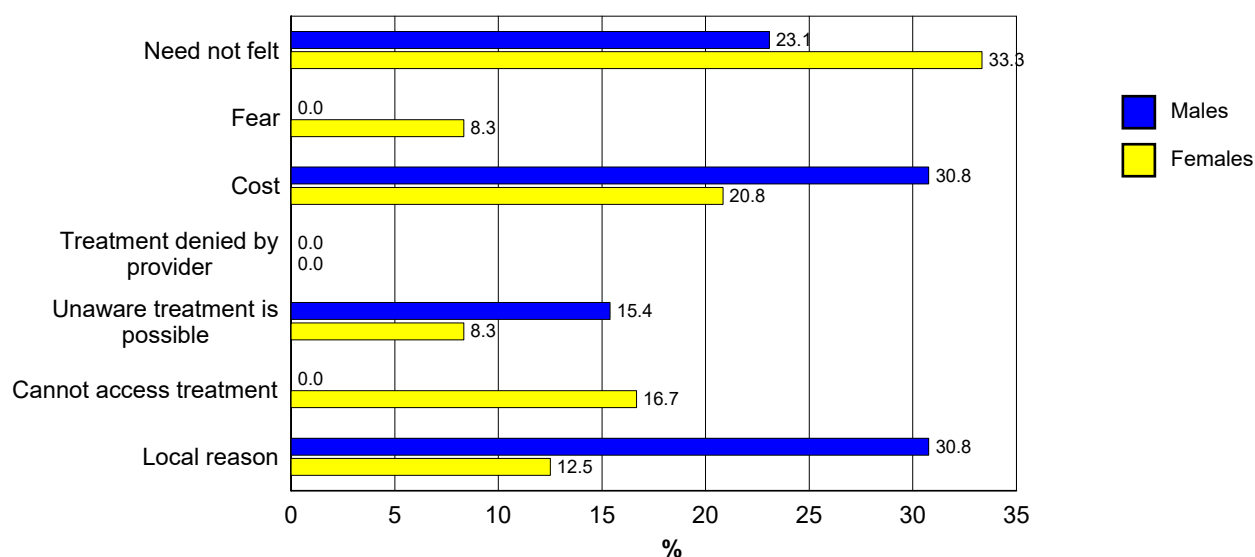
This report is for the survey area: BANDA

Year and month when survey was conducted: 2016- 8 until 2016- 8

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.

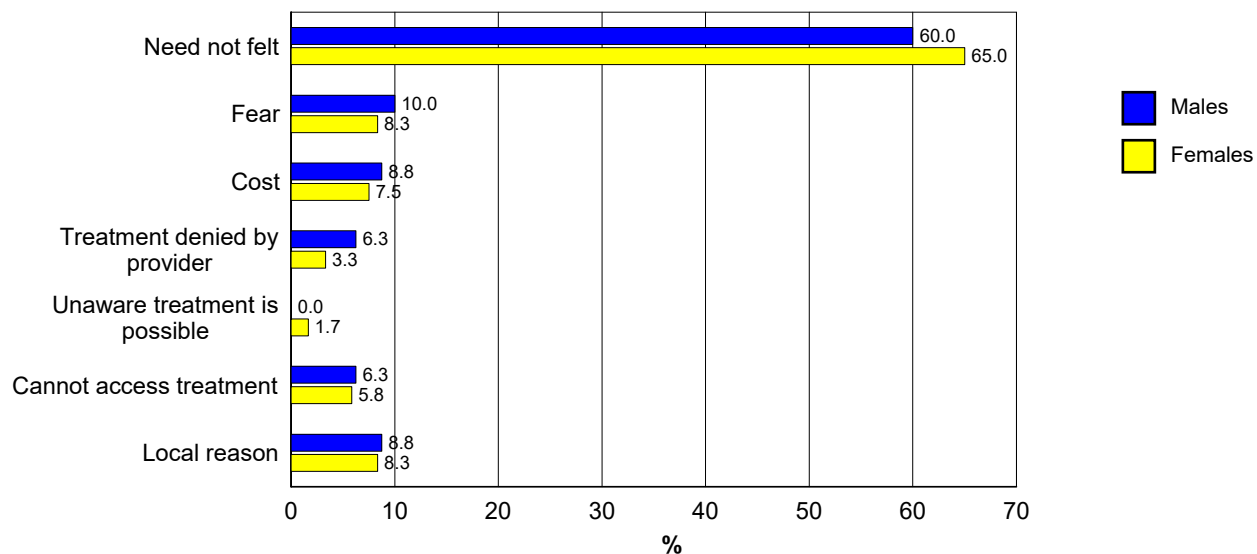
1. Barriers to cataract surgery in sample (bilateral BCVA<6/60 due to cataract)

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	3	23.1%	8	33.3%	11	29.7%
Fear	0	0.0%	2	8.3%	2	5.4%
Cost	4	30.8%	5	20.8%	9	24.3%
Treatment denied by provider	0	0.0%	0	0.0%	0	0.0%
Unaware treatment is possible	2	15.4%	2	8.3%	4	10.8%
Cannot access treatment	0	0.0%	4	16.7%	4	10.8%
Local reason	4	30.8%	3	12.5%	7	18.9%
Total	13	100.0%	24	100.0%	37	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	48	60.0%	78	65.0%	126	63.0%
Fear	8	10.0%	10	8.3%	18	9.0%
Cost	7	8.8%	9	7.5%	16	8.0%
Treatment denied by provider	5	6.3%	4	3.3%	9	4.5%
Unaware treatment is possible	0	0.0%	2	1.7%	2	1.0%
Cannot access treatment	5	6.3%	7	5.8%	12	6.0%
Local reason	7	8.8%	10	8.3%	17	8.5%
Total	80	100.0%	120	100.0%	200	100.0%



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

VISUAL OUTCOME AFTER CATARACT SURGERY (LONG-TERM OUTCOME)

Date and time of report: 27-Sep-16 12:32:08PM

This report is for the survey area: BANDA

Year and month when survey was conducted: 2016- 8 until 2016- 8

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	14	19.4%	510	61.7%	0	0.0%	524	58.1%
Good: can see 6/18	17	23.6%	145	17.5%	0	0.0%	162	18.0%
Borderline: can see 6/60	12	16.7%	83	10.0%	0	0.0%	95	10.5%
Poor: cannot see 6/60	29	40.3%	89	10.8%	3	100.0%	121	13.4%
Total	72	100.0%	827	100.0%	3	100.0%	902	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	22	30.6%	602	72.8%	0	0.0%	624	69.2%
Good: can see 6/18	22	30.6%	99	12.0%	0	0.0%	121	13.4%
Borderline: can see 6/60	10	13.9%	44	5.3%	0	0.0%	54	6.0%
Poor: cannot see 6/60	18	25.0%	82	9.9%	3	100.0%	103	11.4%
Total	72	100.0%	827	100.0%	3	100.0%	902	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	267	69.2%	164	59.2%	93	38.9%	524	58.1%
Good: can see 6/18	53	13.7%	55	19.9%	54	22.6%	162	18.0%
Borderline: can see 6/60	36	9.3%	29	10.5%	30	12.6%	95	10.5%
Poor: cannot see 6/60	30	7.8%	29	10.5%	62	25.9%	121	13.4%
Total	386	100.0%	277	100.0%	239	100.0%	902	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	0	0.0%	0	0.0%	0	0.0%
40 - 49	15	3.3%	15	3.3%	30	3.3%
50 - 59	80	17.8%	136	30.1%	216	23.9%
60 - 69	177	39.3%	182	40.3%	359	39.8%
70 - 79	147	32.7%	97	21.5%	244	27.1%
80+	31	6.9%	22	4.9%	53	5.9%
Total	450	100.0%	452	100.0%	902	100.0%

5. Place of surgery by sex

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Government Hosp.	16	3.6	9	2.0	25	2.8
Voluntary/charitable hospital	428	95.1	436	96.5	864	95.8
Private hospital	6	1.3	7	1.5	13	1.4
Total	450	100.0	452	100.0	902	100.0

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

	Gov. Hosp.		Vol. Hosp.		Priv. Hosp.		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Very good: can see 6/12	13	52.0	505	58.4	6	46.2	524	58.1
Good: can see 6/18	5	20.0	152	17.6	5	38.5	162	18.0
Borderline: can see 6/60	3	12.0	91	10.5	1	7.7	95	10.5
Poor: cannot see 6/60	4	16.0	116	13.4	1	7.7	121	13.4
Total	25	100.0	864	100.0	13	100.0	902	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	524	100.0	524	58.1
Good: can see 6/18	15	15.3	60	38.0	86	81.1	1	6.3	0	0.0	162	18.0
Borderline: can see 6/60	20	20.4	55	34.8	15	14.2	5	31.3	0	0.0	95	10.5
Poor: cannot see 6/60	63	64.3	43	27.2	5	4.7	10	62.5	0	0.0	121	13.4
Total	98	100.0	158	100.0	106	100.0	16	100.0	524	100.0	902	100.0

8. Proportion and type of surgery

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Non-IOL	35	7.8	37	8.2	72	8.0
IOL	415	92.2	412	91.2	827	91.7
Couching	0	0.0	3	0.7	3	0.3
Total	450	100.0	452	100.0	902	100.0

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

INDICATORS BY SEX AND BY AGE GROUP - FINDINGS FROM SAMPLE

Date and time of report:

27-Sep-16

12:32:26PM

This report is for the survey area:

BANDA

Year and month when survey was conducted:

2016- 8 until 2016- 8

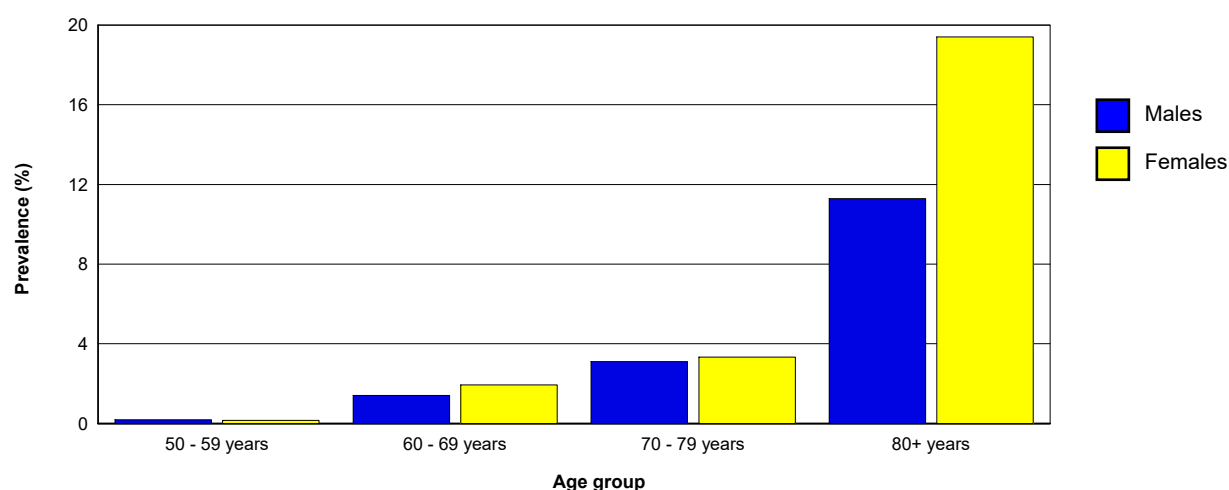
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals 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	540	40.1%	654	46.9%	1,194	43.5%
60 - 69 years	426	31.6%	464	33.3%	890	32.4%
70 - 79 years	257	19.1%	210	15.1%	467	17.1%
80+ years	124	9.2%	67	4.8%	191	7.0%
Total	1,347	100.0%	1,395	100.0%	2,742	100.0%

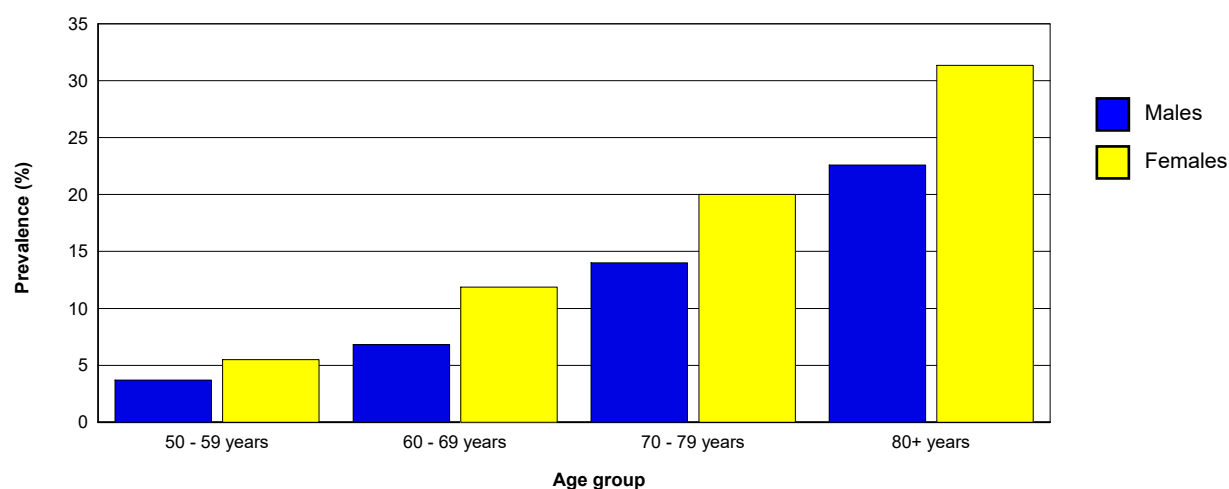
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2%	1	0.2%	2	0.2%
60 - 69 years	6	1.4%	9	1.9%	15	1.7%
70 - 79 years	8	3.1%	7	3.3%	15	3.2%
80+ years	14	11.3%	13	19.4%	27	14.1%
Total	29	2.2%	30	2.2%	59	2.2%



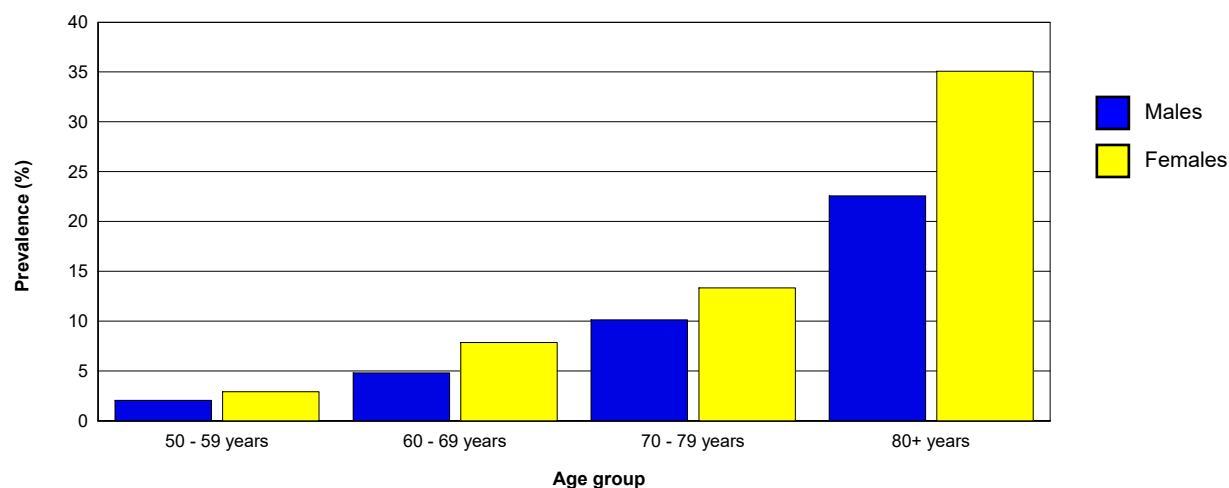
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	20	3.7%	36	5.5%	56	4.7%
60 - 69 years	29	6.8%	55	11.9%	84	9.4%
70 - 79 years	36	14.0%	42	20.0%	78	16.7%
80+ years	28	22.6%	21	31.3%	49	25.7%
Total	113	8.4%	154	11.0%	267	9.7%



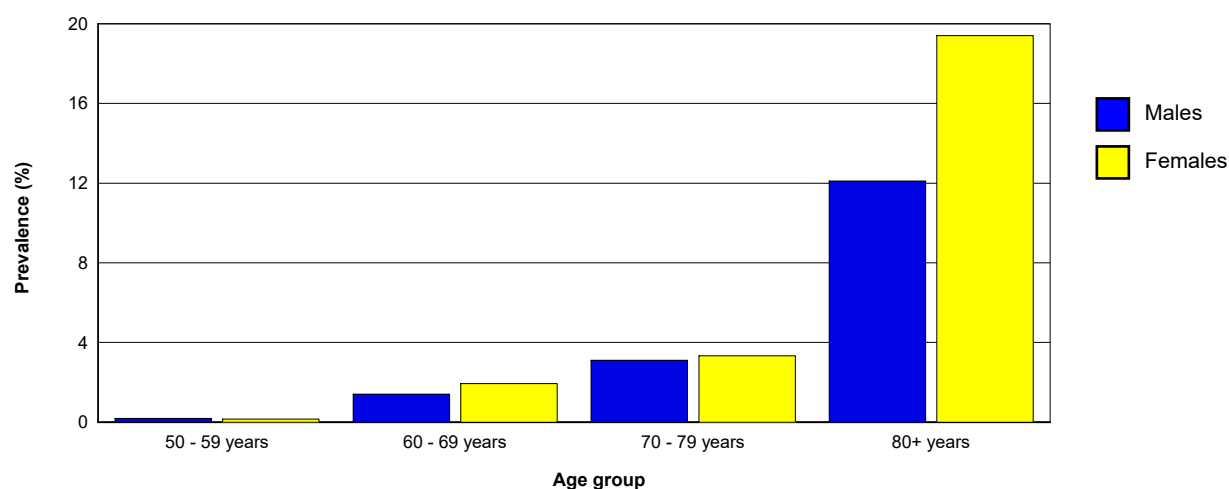
4. Prevalence of blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	22	2.0%	38	2.9%	60	2.5%
60 - 69 years	41	4.8%	73	7.9%	114	6.4%
70 - 79 years	52	10.1%	56	13.3%	108	11.6%
80+ years	56	22.6%	47	35.1%	103	27.0%
Total	171	6.3%	214	7.7%	385	7.0%



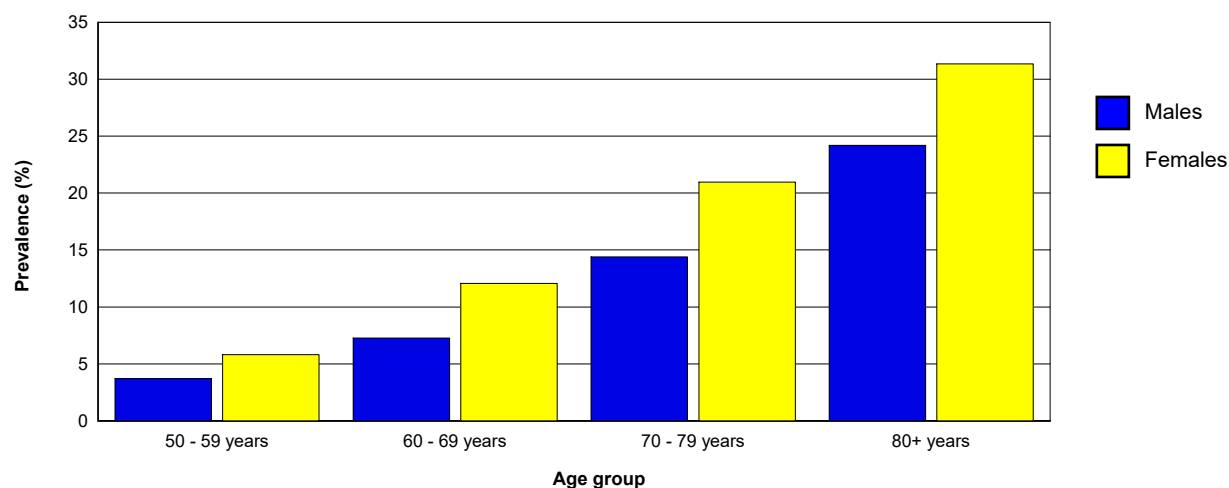
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2%	1	0.2%	2	0.2%
60 - 69 years	6	1.4%	9	1.9%	15	1.7%
70 - 79 years	8	3.1%	7	3.3%	15	3.2%
80+ years	15	12.1%	13	19.4%	28	14.7%
Total	30	2.2%	30	2.2%	60	2.2%



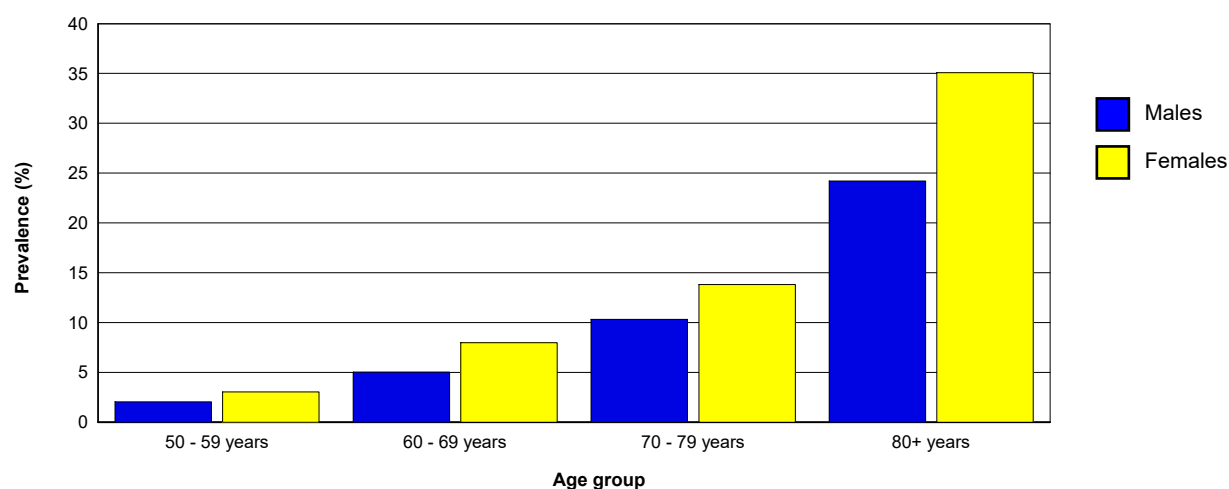
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	20	3.7%	38	5.8%	58	4.9%
60 - 69 years	31	7.3%	56	12.1%	87	9.8%
70 - 79 years	37	14.4%	44	21.0%	81	17.3%
80+ years	30	24.2%	21	31.3%	51	26.7%
Total	118	8.8%	159	11.4%	277	10.1%



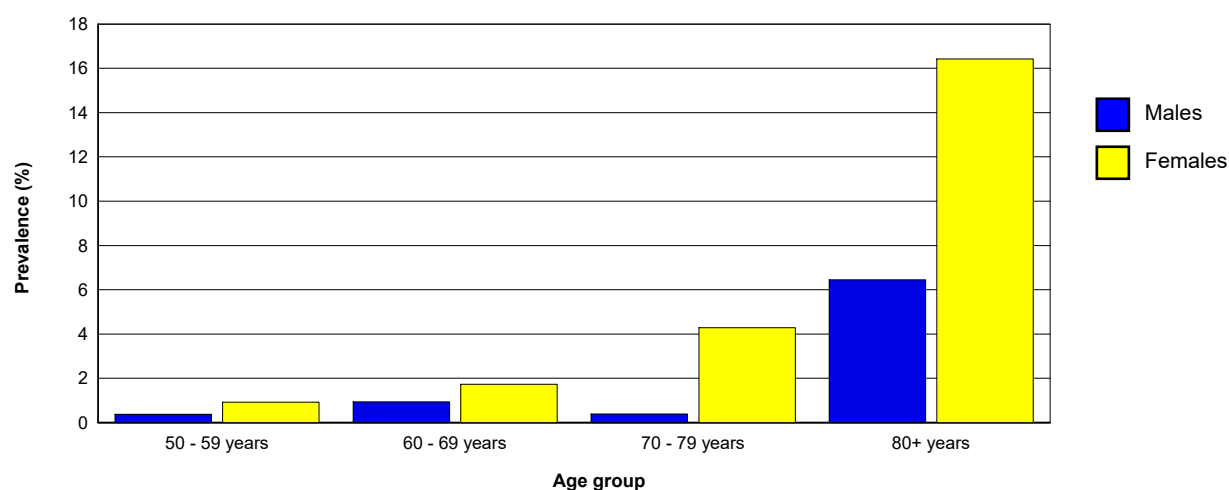
7. Prevalence of blind eyes - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	22	2.0%	40	3.1%	62	2.6%
60 - 69 years	43	5.0%	74	8.0%	117	6.6%
70 - 79 years	53	10.3%	58	13.8%	111	11.9%
80+ years	60	24.2%	47	35.1%	107	28.0%
Total	178	6.6%	219	7.8%	397	7.2%



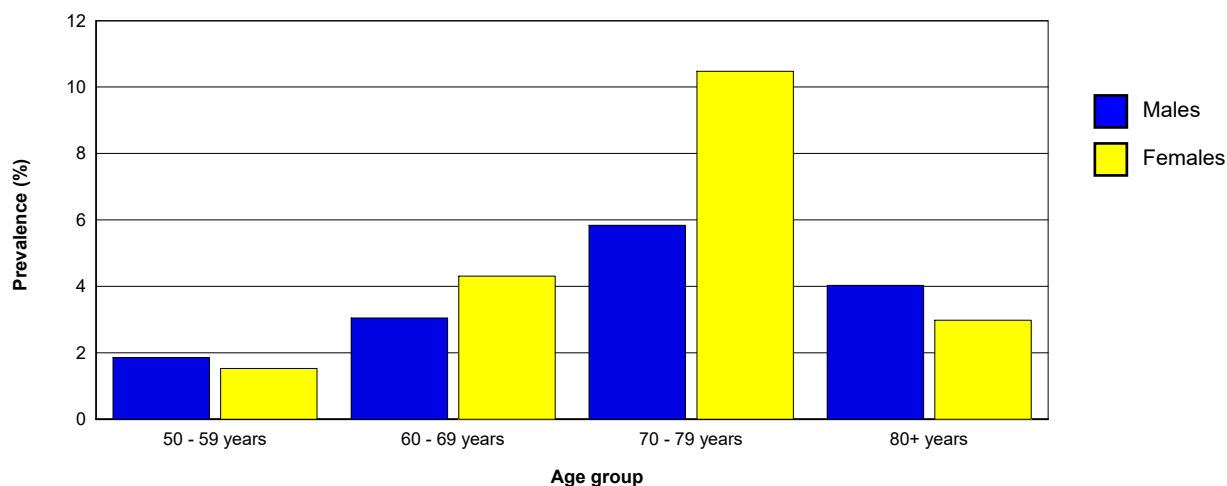
8. Prevalence of people with bilateral severe visual impairment - VA<6/60-3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	2	0.4%	6	0.9%	8	0.7%
60 - 69 years	4	0.9%	8	1.7%	12	1.3%
70 - 79 years	1	0.4%	9	4.3%	10	2.1%
80+ years	8	6.5%	11	16.4%	19	9.9%
Total	15	1.1%	34	2.4%	49	1.8%



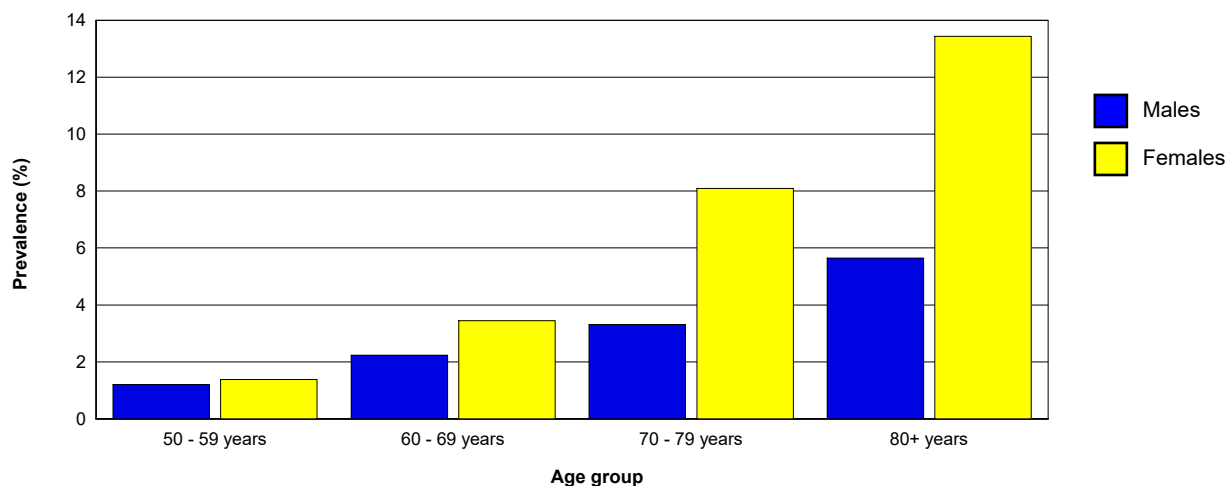
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	10	1.9%	10	1.5%	20	1.7%
60 - 69 years	13	3.1%	20	4.3%	33	3.7%
70 - 79 years	15	5.8%	22	10.5%	37	7.9%
80+ years	5	4.0%	2	3.0%	7	3.7%
Total	43	3.2%	54	3.9%	97	3.5%



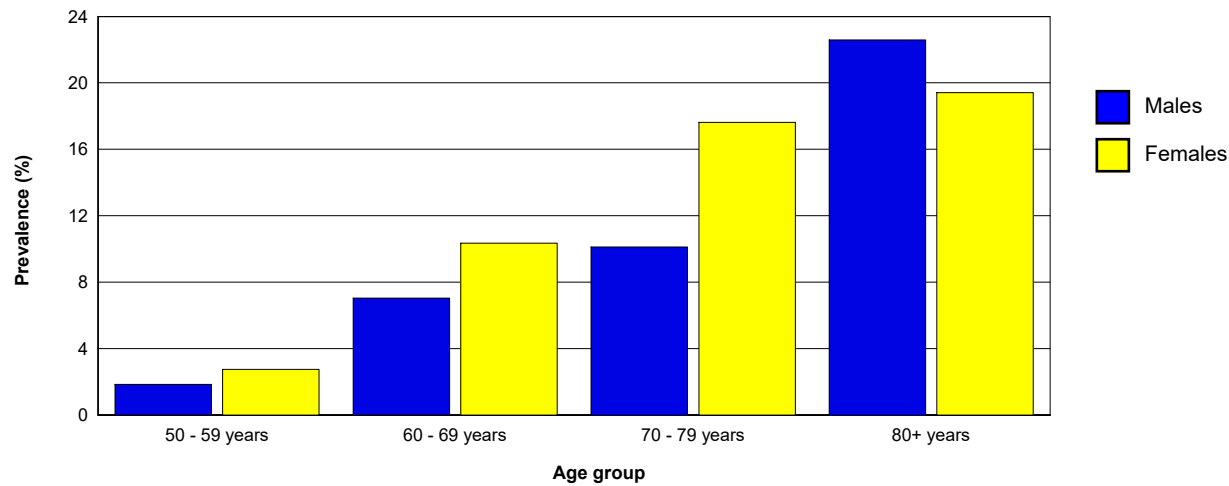
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	13	1.2%	18	1.4%	31	1.3%
60 - 69 years	19	2.2%	32	3.4%	51	2.9%
70 - 79 years	17	3.3%	34	8.1%	51	5.5%
80+ years	14	5.6%	18	13.4%	32	8.4%
Total	63	2.3%	102	3.7%	165	3.0%



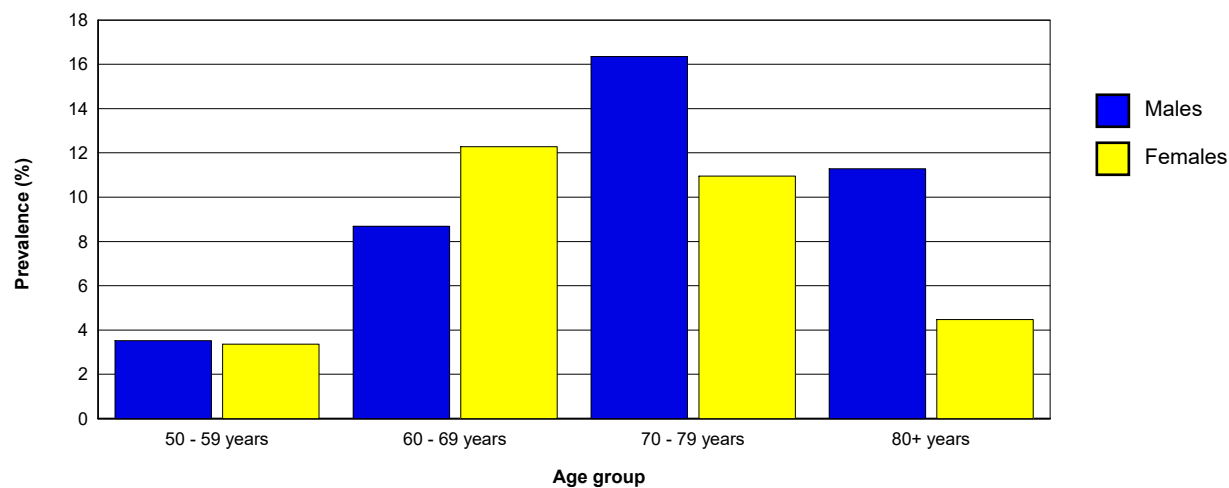
11. Prevalence of people with bilateral moderate visual impairment - VA <6/18-6/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	10	1.9%	18	2.8%	28	2.3%
60 - 69 years	30	7.0%	48	10.3%	78	8.8%
70 - 79 years	26	10.1%	37	17.6%	63	13.5%
80+ years	28	22.6%	13	19.4%	41	21.5%
Total	94	7.0%	116	8.3%	210	7.7%



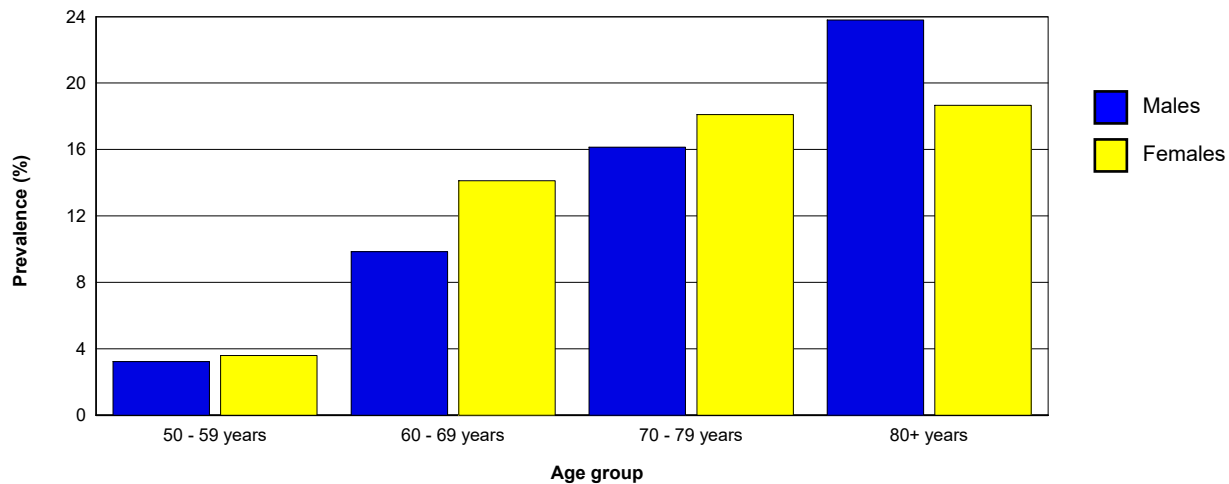
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	19	3.5%	22	3.4%	41	3.4%
60 - 69 years	37	8.7%	57	12.3%	94	10.6%
70 - 79 years	42	16.3%	23	11.0%	65	13.9%
80+ years	14	11.3%	3	4.5%	17	8.9%
Total	112	8.3%	105	7.5%	217	7.9%



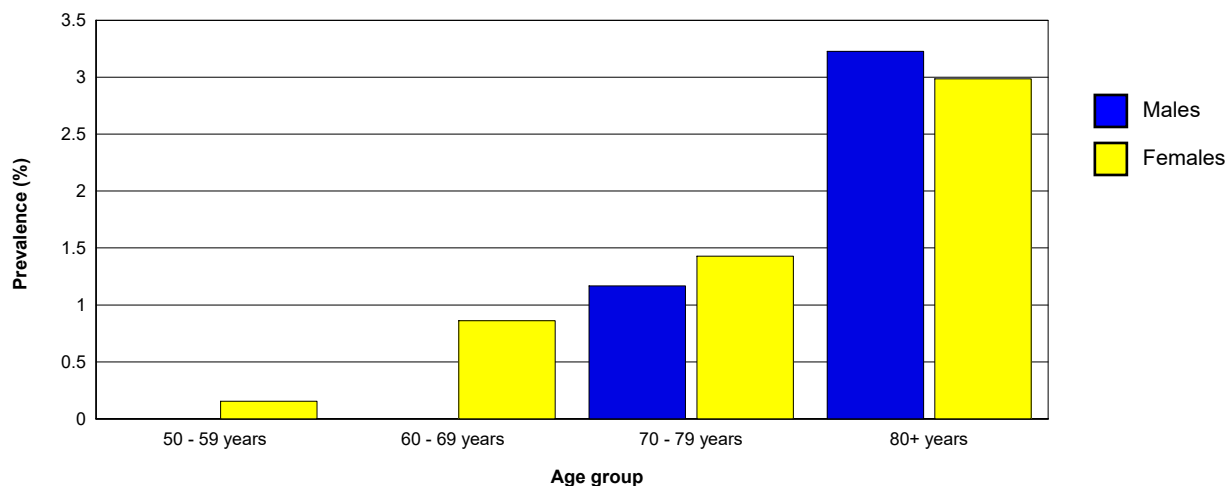
13. Prevalence of MVI eyes - VA<6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	35	3.2%	47	3.6%	82	3.4%
60 - 69 years	84	9.9%	131	14.1%	215	12.1%
70 - 79 years	83	16.1%	76	18.1%	159	17.0%
80+ years	59	23.8%	25	18.7%	84	22.0%
Total	261	9.7%	279	10.0%	540	9.8%



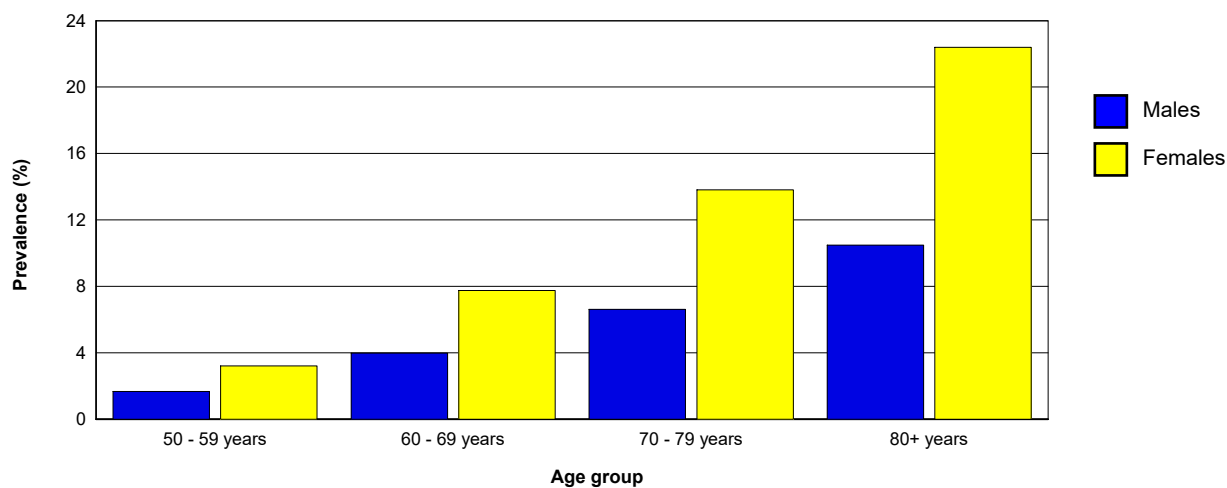
14. Prevalence of people bilateral blind due to cataract - VA<3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	0	0.0%	1	0.2%	1	0.1%
60 - 69 years	0	0.0%	4	0.9%	4	0.4%
70 - 79 years	3	1.2%	3	1.4%	6	1.3%
80+ years	4	3.2%	2	3.0%	6	3.1%
Total	7	0.5%	10	0.7%	17	0.6%



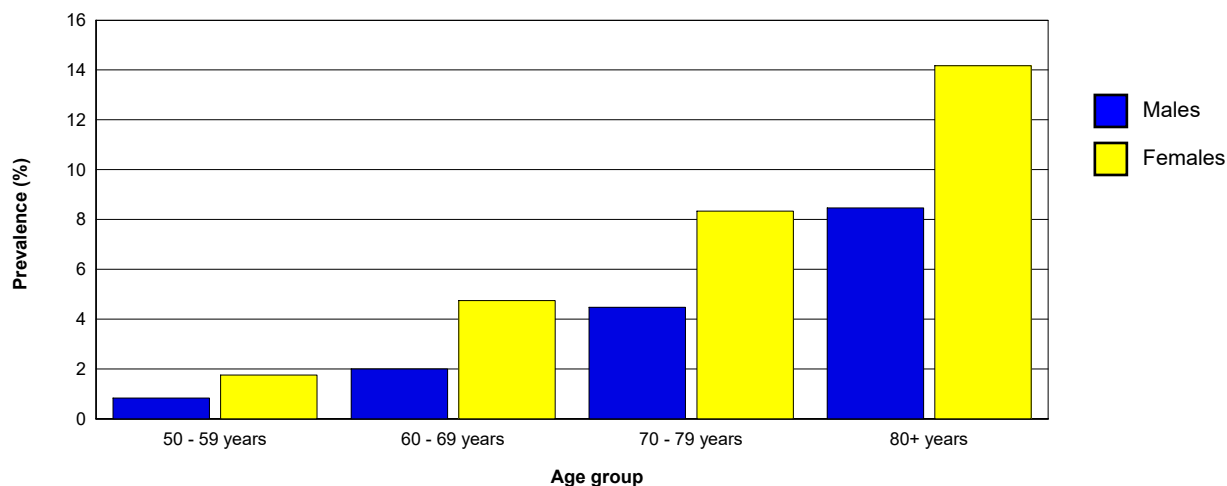
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	9	1.7%	21	3.2%	30	2.5%
60 - 69 years	17	4.0%	36	7.8%	53	6.0%
70 - 79 years	17	6.6%	29	13.8%	46	9.9%
80+ years	13	10.5%	15	22.4%	28	14.7%
Total	56	4.2%	101	7.2%	157	5.7%



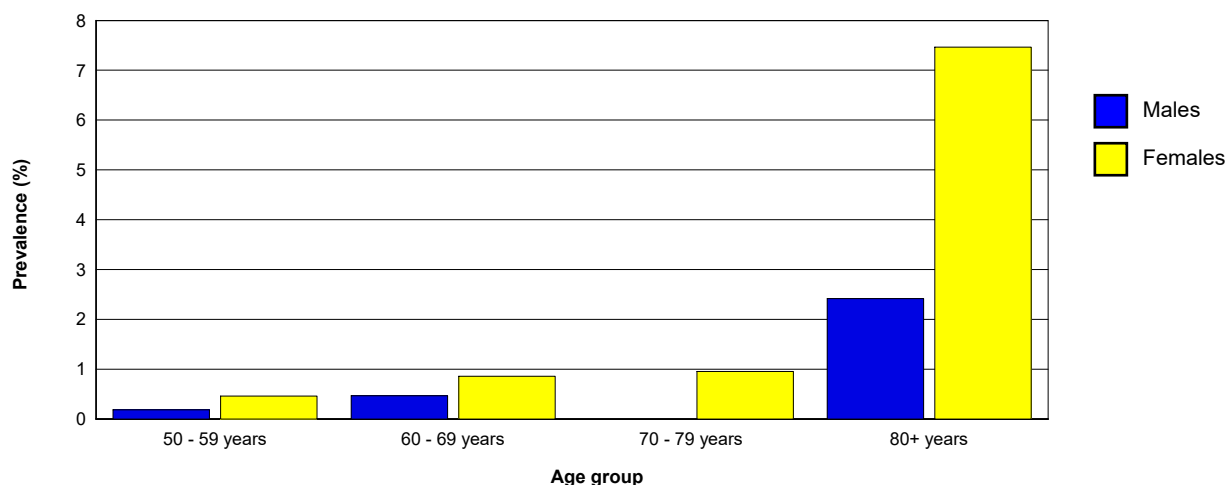
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	9	0.8%	23	1.8%	32	1.3%
60 - 69 years	17	2.0%	44	4.7%	61	3.4%
70 - 79 years	23	4.5%	35	8.3%	58	6.2%
80+ years	21	8.5%	19	14.2%	40	10.5%
Total	70	2.6%	121	4.3%	191	3.5%



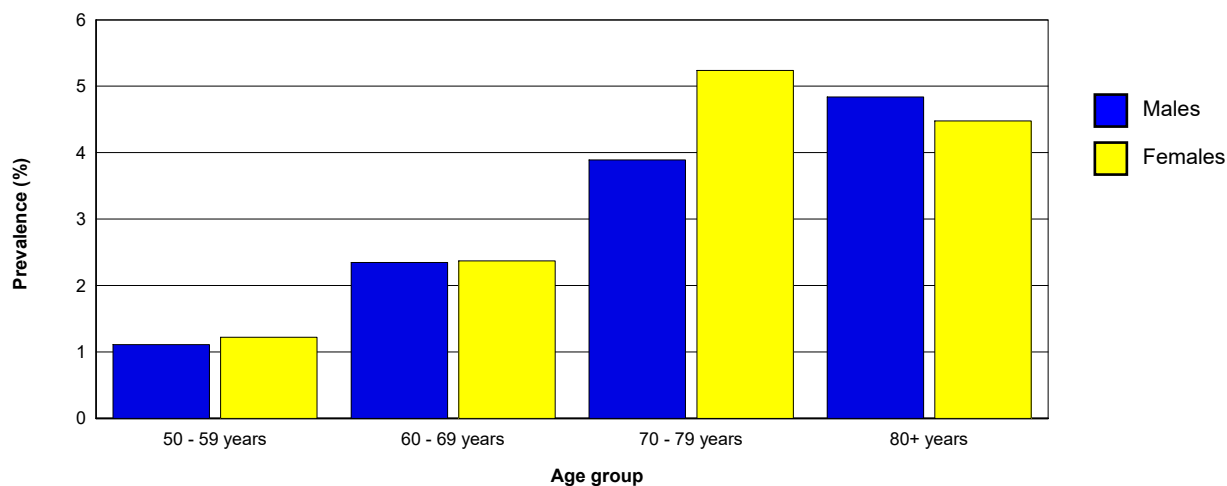
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2%	3	0.5%	4	0.3%
60 - 69 years	2	0.5%	4	0.9%	6	0.7%
70 - 79 years	0	0.0%	2	1.0%	2	0.4%
80+ years	3	2.4%	5	7.5%	8	4.2%
Total	6	0.4%	14	1.0%	20	0.7%



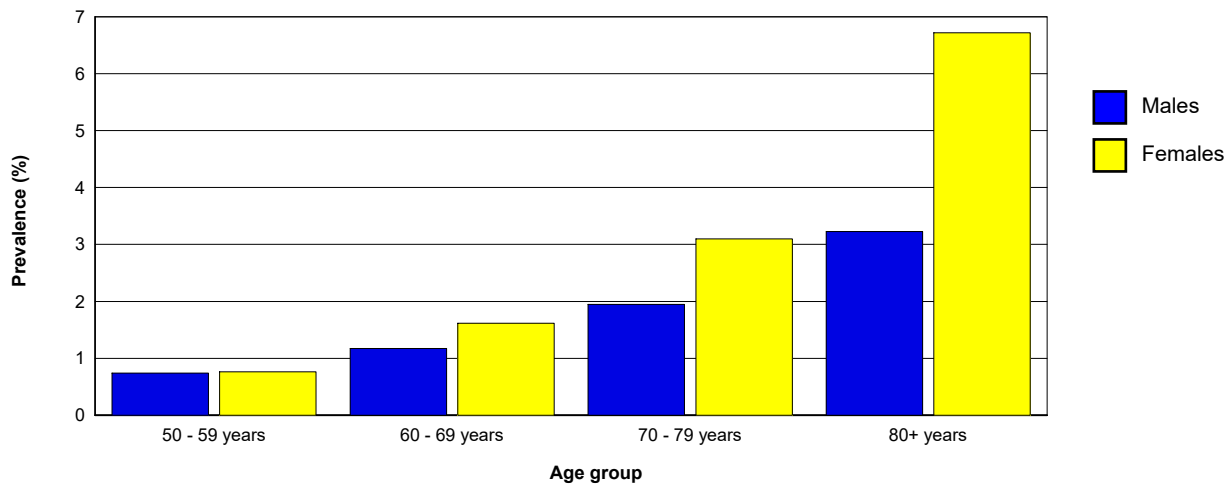
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA<6/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	6	1.1%	8	1.2%	14	1.2%
60 - 69 years	10	2.3%	11	2.4%	21	2.4%
70 - 79 years	10	3.9%	11	5.2%	21	4.5%
80+ years	6	4.8%	3	4.5%	9	4.7%
Total	32	2.4%	33	2.4%	65	2.4%



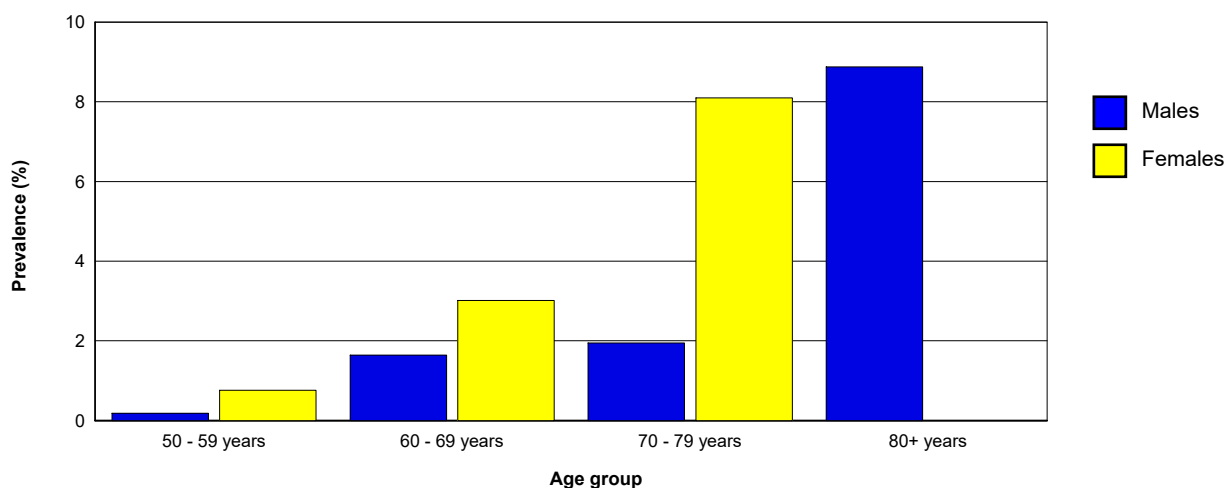
19. Prevalence of cataract SVI eyes - VA<6/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	8	0.7%	10	0.8%	18	0.8%
60 - 69 years	10	1.2%	15	1.6%	25	1.4%
70 - 79 years	10	1.9%	13	3.1%	23	2.5%
80+ years	8	3.2%	9	6.7%	17	4.5%
Total	36	1.3%	47	1.7%	83	1.5%



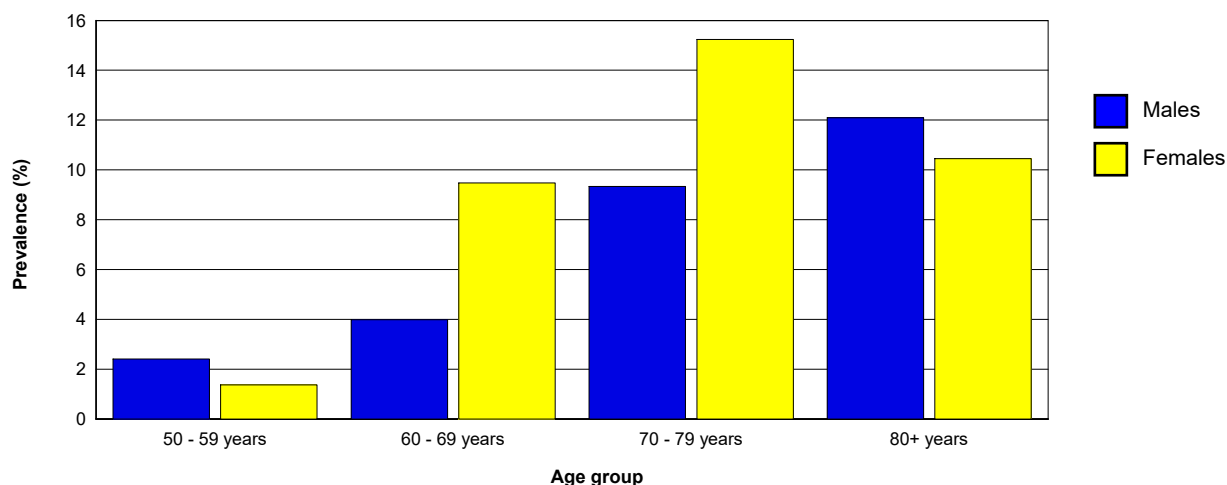
20. Prevalence of people with bilateral moderate visual impairment due to cataract - VA<6/18-6/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2%	5	0.8%	6	0.5%
60 - 69 years	7	1.6%	14	3.0%	21	2.4%
70 - 79 years	5	1.9%	17	8.1%	22	4.7%
80+ years	11	8.9%	0	0.0%	11	5.8%
Total	24	1.8%	36	2.6%	60	2.2%



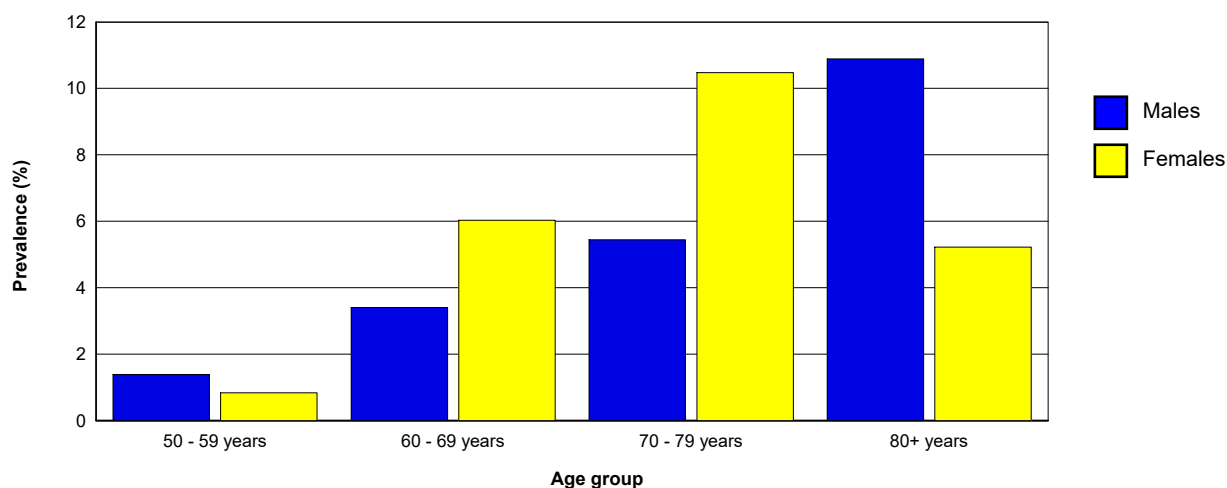
21. Prevalence of people with unilateral moderate visual impairment due to cataract - VA<6/18-6/60 best corrected

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	13	2.4%	9	1.4%	22	1.8%
60 - 69 years	17	4.0%	44	9.5%	61	6.9%
70 - 79 years	24	9.3%	32	15.2%	56	12.0%
80+ years	15	12.1%	7	10.4%	22	11.5%
Total	69	5.1%	92	6.6%	161	5.9%



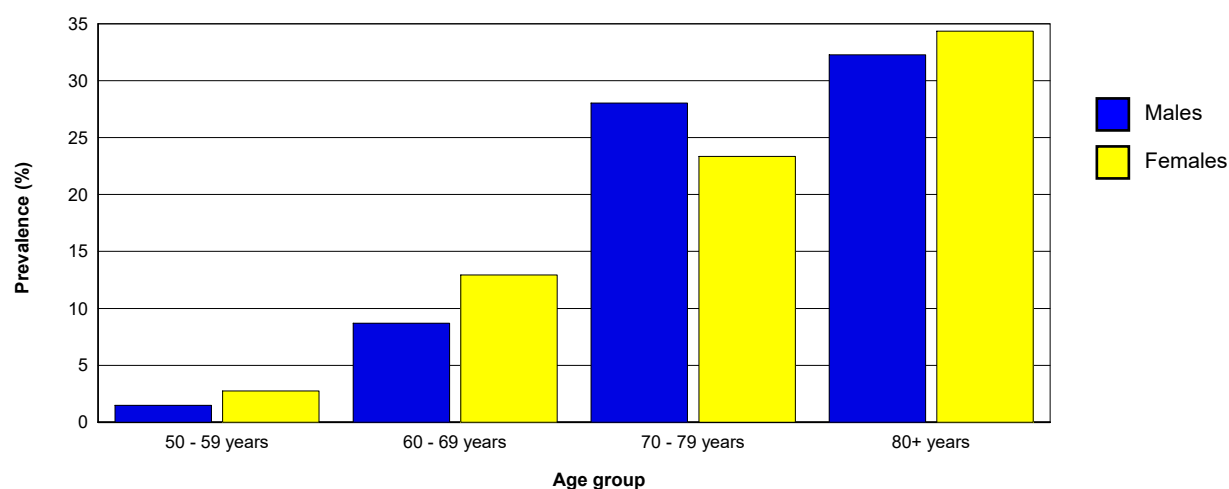
22. Prevalence of cataract MVI eyes - VA <6/18-6/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	15	1.4%	11	0.8%	26	1.1%
60 - 69 years	29	3.4%	56	6.0%	85	4.8%
70 - 79 years	28	5.4%	44	10.5%	72	7.7%
80+ years	27	10.9%	7	5.2%	34	8.9%
Total	99	3.7%	118	4.2%	217	4.0%



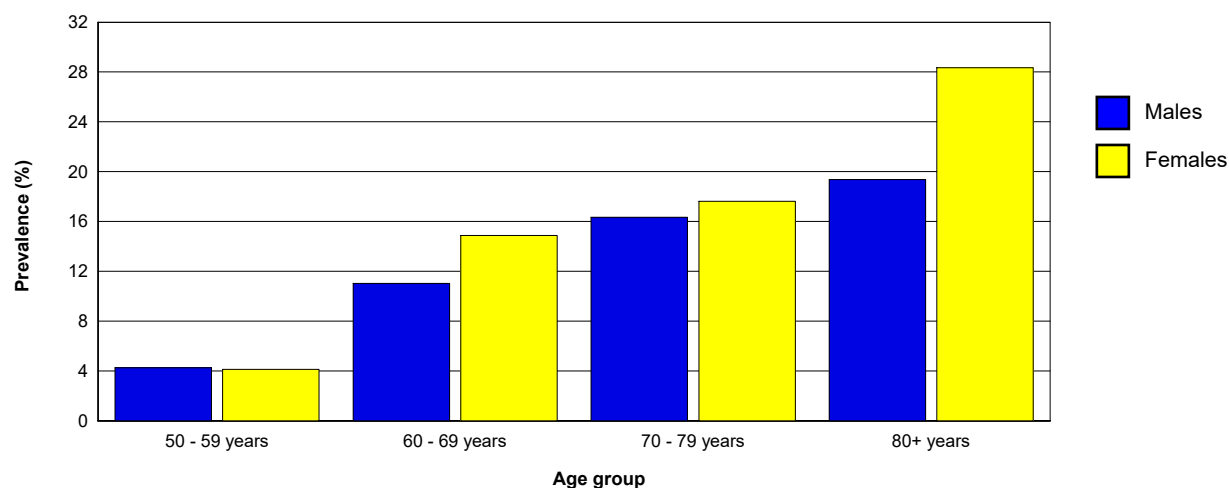
23. Prevalence of people with bilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	8	1.5%	18	2.8%	26	2.2%
60 - 69 years	37	8.7%	60	12.9%	97	10.9%
70 - 79 years	72	28.0%	49	23.3%	121	25.9%
80+ years	40	32.3%	23	34.3%	63	33.0%
Total	157	11.7%	150	10.8%	307	11.2%



24. Prevalence of people with unilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	23	4.3%	27	4.1%	50	4.2%
60 - 69 years	47	11.0%	69	14.9%	116	13.0%
70 - 79 years	42	16.3%	37	17.6%	79	16.9%
80+ years	24	19.4%	19	28.4%	43	22.5%
Total	136	10.1%	152	10.9%	288	10.5%



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

AGE AND SEX ADJUSTED PREVALENCE AND ESTIMATED NUMBERS

Date and time of report:

27-Sep-16

12:32:45PM

This report is for the survey area:

BANDA

Year and month when survey was conducted:

2016- 8 until 2016- 8

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.

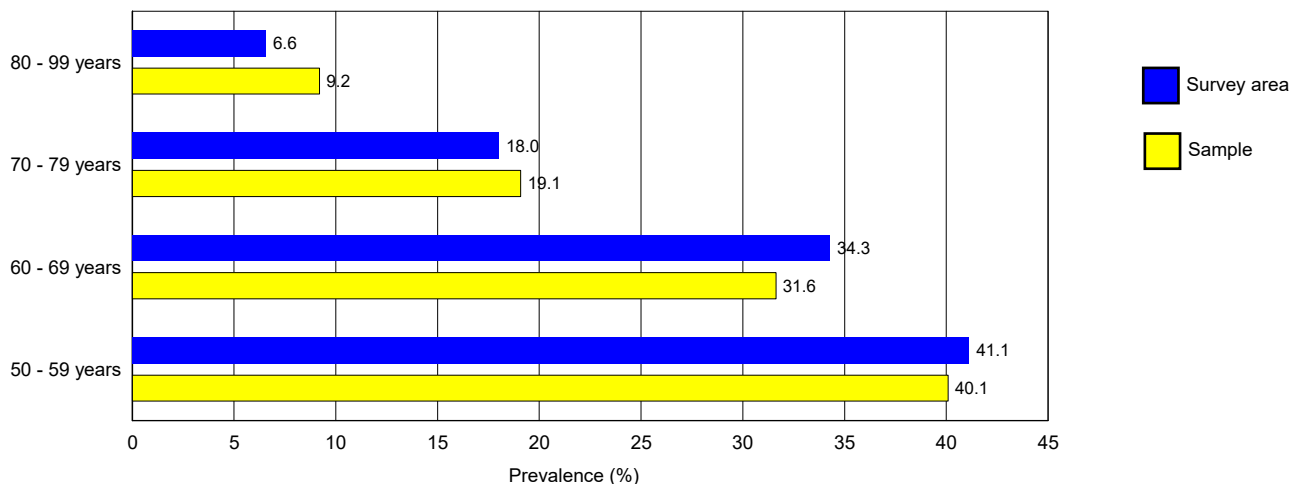
1. Age and sex distribution of people examined in the sample

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	540	40.1%	654	46.9%	1,194	43.5%
60 - 69 years	426	31.6%	464	33.3%	890	32.5%
70 - 79 years	257	19.1%	210	15.1%	467	17.0%
80 - 99 years	124	9.2%	67	4.8%	191	7.0%
Total	1,347	100.0%	1,395	100.0%	2,742	100.0%

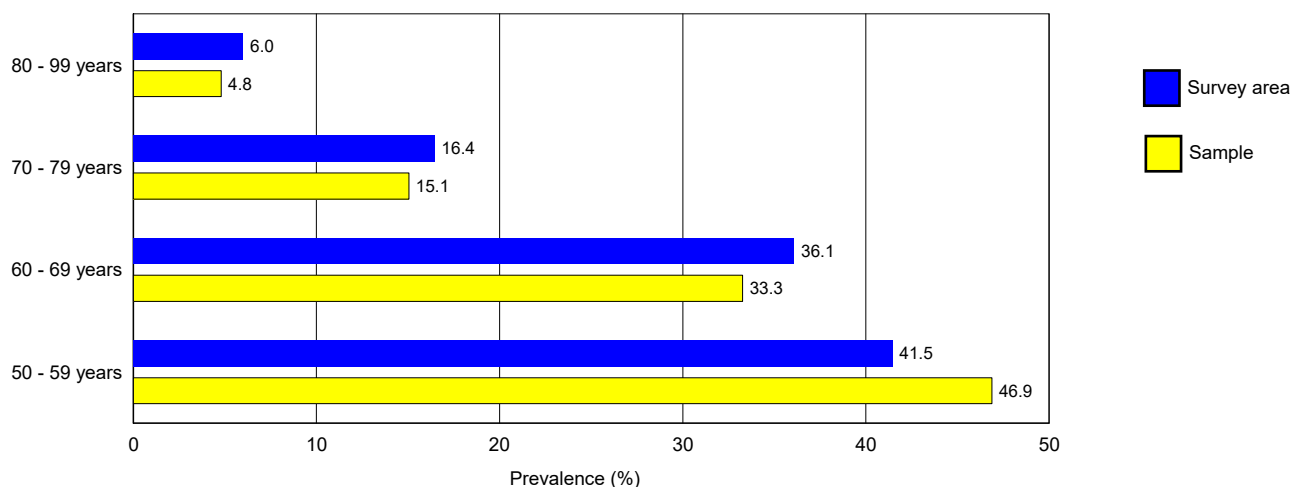
2. Total number of people aged 50+ in survey area

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	57,442	41.1%	52,082	41.5%	109,524	41.3%
60 - 69 years	47,892	34.3%	45,345	36.1%	93,237	35.1%
70 - 79 years	25,167	18.0%	20,666	16.4%	45,833	17.3%
80 - 99 years	9,162	6.6%	7,554	6.0%	16,716	6.3%
Total	139,663	100.0%	125,647	100.0%	265,310	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	2,598	1.9 (0.9 - 2.8)	3,115	2.5 (1.9 - 3.1)	5,713	2.2 (1.6 - 2.7)
All eyes	16,179	5.8 (4.7 - 6.9)	20,970	8.3 (7.3 - 9.4)	37,149	7.0 (6.2 - 7.8)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral cases	2,672	1.9 (1.0 - 2.8)	3,115	2.5 (1.9 - 3.1)	5,787	2.2 (1.6 - 2.7)
All eyes	16,797	6.0 (4.9 - 7.1)	21,424	8.5 (7.5 - 9.5)	38,221	7.2 (6.4 - 8.0)
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral cases	1,352	1.0 (0.4 - 1.5)	3,386	2.7 (1.7 - 3.7)	4,738	1.8 (1.2 - 2.4)
All eyes	6,218	2.2 (1.6 - 2.8)	9,935	4.0 (3.1 - 4.8)	16,153	3.0 (2.5 - 3.6)
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral cases	9,052	6.5 (5.0 - 7.9)	11,231	8.9 (7.3 - 10.6)	20,283	7.6 (6.4 - 8.9)
All eyes	25,654	9.2 (7.6 - 10.7)	26,843	10.7 (9.0 - 12.3)	52,497	9.9 (8.6 - 11.1)
Early visual impairment (EVI) - VA<6/12 - 6/18 in the better eye with available correction						
All bilateral cases	15,865	11.4 (9.3 - 13.4)	17,684	14.1 (12.0 - 16.1)	33,549	12.6 (11.2 - 14.1)
All eyes	39,606	14.2 (12.2 - 16.1)	38,839	15.5 (13.5 - 17.4)	78,445	14.8 (13.3 - 16.3)

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	2,672	1.9 (1.0 - 2.8)	3,115	2.5 (1.9 - 3.1)	5,787	2.2 (1.6 - 2.7)
All eyes	16,797	6.0 (4.9 - 7.1)	21,424	8.5 (7.5 - 9.5)	38,221	7.2 (6.4 - 8.0)
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	4,023	2.9 (1.8 - 4.0)	6,499	5.2 (4.0 - 6.3)	10,522	4.0 (3.2 - 4.8)
All eyes	23,016	8.2 (6.8 - 9.7)	31,360	12.5 (11.1 - 13.9)	54,376	10.2 (9.2 - 11.3)
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	13,075	9.4 (7.8 - 10.9)	17,731	14.1 (12.1 - 16.1)	30,806	11.6 (10.1 - 13.1)
All eyes	48,670	17.4 (15.6 - 19.3)	58,203	23.2 (21.1 - 25.3)	106,873	20.1 (18.6 - 21.7)
VA<6/12 in the better eye, with available correction (presenting VA)						
All bilateral cases	28,941	20.7 (18.3 - 23.2)	35,415	28.2 (25.4 - 31.0)	64,356	24.3 (22.2 - 26.3)
All eyes	88,276	31.6 (28.9 - 34.3)	97,041	38.6 (36.3 - 41.0)	185,317	34.9 (33.0 - 36.9)

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	590	0.4 (0.0 - 0.8)	991	0.8 (0.4 - 1.2)	1,581	0.6 (0.3 - 0.9)
Unilateral cataract	5,494	3.9 (2.7 - 5.1)	9,735	7.7 (6.2 - 9.3)	15,229	5.7 (4.6 - 6.8)
Cataract eyes	6,672	2.4 (1.7 - 3.1)	11,718	4.7 (3.9 - 5.5)	18,390	3.5 (2.9 - 4.0)
Cataract and SVI - VA<6/60 - 3/60 in better eye with best correction or pinhole						
Bilateral cataract	553	0.4 (0.2 - 0.6)	1,391	1.1 (0.8 - 1.5)	1,944	0.7 (0.5 - 0.9)
Unilateral cataract	2,812	2.0 (1.2 - 2.8)	2,455	2.0 (0.8 - 3.1)	5,267	2.0 (1.3 - 2.7)
Cataract eyes	3,545	1.3 (0.9 - 1.7)	4,556	1.8 (1.2 - 2.5)	8,101	1.5 (1.1 - 2.0)
Cataract and Moderate VI (MVI) - VA<6/18 - 6/60 in better eye with best correction or pinhole						
Bilateral cataract	2,196	1.6 (0.8 - 2.3)	3,439	2.7 (2.2 - 3.3)	5,635	2.1 (1.6 - 2.6)
Unilateral cataract	5,977	4.3 (2.9 - 5.6)	6,772	5.4 (3.8 - 6.9)	12,749	4.8 (3.8 - 5.8)
Cataract eyes	9,593	3.4 (2.4 - 4.4)	11,468	4.6 (3.5 - 5.6)	21,061	4.0 (3.1 - 4.8)
Cataract and Early VI (EVI) - VA<6/12 - 6/18 in better eye with best correction or pinhole						
Bilateral cataract	7,707	2.8 (1.9 - 3.6)	8,518	3.4 (2.4 - 4.4)	16,225	3.1 (2.4 - 3.7)
Unilateral cataract	12,425	4.4 (2.4 - 6.5)	9,337	3.7 (2.3 - 5.2)	21,762	4.1 (2.8 - 5.4)
Cataract eyes	23,700	8.5 (7.2 - 9.8)	22,167	8.8 (7.6 - 10.0)	45,867	8.6 (7.8 - 9.5)

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	590	0.4 (0.0 - 0.8)	991	0.8 (0.4 - 1.2)	1,581	0.6 (0.3 - 0.9)
Unilateral cataract	5,494	3.9 (2.7 - 5.1)	9,735	7.7 (6.2 - 9.3)	15,229	5.7 (4.6 - 6.8)
Cataract eyes	6,672	2.4 (1.7 - 3.1)	11,718	4.7 (3.9 - 5.5)	18,390	3.5 (2.9 - 4.0)
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	1,142	0.8 (0.3 - 1.3)	2,382	1.9 (1.4 - 2.4)	3,524	1.3 (0.9 - 1.7)
Unilateral cataract	8,307	5.9 (4.4 - 7.5)	12,190	9.7 (7.7 - 11.7)	20,497	7.7 (6.4 - 9.1)
Cataract eyes	10,218	3.7 (2.8 - 4.5)	16,275	6.5 (5.4 - 7.5)	26,493	5.0 (4.3 - 5.7)
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	3,338	2.4 (1.5 - 3.3)	5,821	4.6 (3.8 - 5.5)	9,159	3.5 (2.7 - 4.2)
Unilateral cataract	14,282	10.2 (8.3 - 12.2)	18,962	15.1 (12.6 - 17.6)	33,244	12.5 (11.0 - 14.1)
Cataract eyes	19,811	7.1 (5.9 - 8.3)	27,742	11.0 (9.4 - 12.7)	47,553	9.0 (7.9 - 10.1)
Cataract and VA<6/12 with best correction or pinhole						
Bilateral cataract	11,045	7.9 (6.6 - 9.2)	14,340	11.4 (10.2 - 12.7)	25,385	9.6 (8.6 - 10.5)
Unilateral cataract	26,708	19.1 (15.9 - 22.3)	28,301	22.5 (19.8 - 25.2)	55,009	20.7 (18.7 - 22.8)
Cataract eyes	43,511	15.6 (13.7 - 17.4)	49,911	19.9 (18.0 - 21.8)	93,422	17.6 (16.3 - 18.9)

9. Adjusted results for aphakia and pseudophakia

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Bilateral (pseudo)aphakia	15,017	10.8 (8.7 - 12.8)	14,712	11.7 (9.9 - 13.6)	29,729	11.2 (9.7 - 12.7)
Unilateral (pseudo)aphakia	13,617	9.8 (8.1 - 11.4)	14,676	11.7 (10.1 - 13.3)	28,293	10.7 (9.5 - 11.8)
Eyes (pseudo)aphakia	43,650	15.6 (13.5 - 17.8)	44,100	17.5 (15.6 - 19.5)	87,750	16.5 (14.9 - 18.2)

10. Adjusted results for cataract surgical coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	86.7	79.0	82.7
VA < 6/60	81.0	73.0	76.8
VA < 6/18	68.8	61.4	64.9
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	97.2	95.8	96.5
VA < 6/60	95.1	91.0	92.9
VA < 6/18	87.5	81.8	84.4

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

FINDINGS ON DIABETES AND DIABETIC RETINOPATHY

Date and time of report:

27-Sep-16

12:33:24PM

This report is for the survey area:

BANDA

Year and month when survey was conducted:

2016- 8 until 2016- 8

The diagnosis of diabetes is based on either a history of known diabetes, or, in case the person is not known with diabetes, on a random blood sugar of 200 mg/dl or higher.

1. Prevalence of known and newly diagnosed diabetes by age group and by gender

	Males		Females		Total	
	n	p (95% CI)	n	p (95% CI)	n	p (95% CI)
50 - 59	26	4.8% (3.0-6.7)	18	2.8% (1.4-4.1)	44	3.7% (2.5-4.9)
60 - 69	23	5.4% (3.4-7.4)	18	3.9% (2.1-5.7)	41	4.6% (3.2-6.0)
70 - 79	13	5.1% (2.1-8.0)	5	2.4% (0.4-4.4)	18	3.9% (2.1-5.6)
80+	7	5.6% (0.7-10.6)	2	3.0% (0.0-7.0)	9	4.7% (1.4-8.1)
All ages	69	5.1% (3.9-6.4)	43	3.1% (2.0-4.2)	112	4.1% (3.2-4.9)

2. Diabetics and random blood sugar level

		Males		Females		Total	
		n	%	n	%	n	%
All diabetics	Known diabetes	25	36.2%	13	30.2%	38	33.9%
	Newly diagnosed diabetes	44	63.8%	30	69.8%	74	66.1%
	Total	69	100.0%	43	100.0%	112	100.0%
Known diabetes	Bloodsugar <200 mg/dl	8	32.0%	2	15.4%	10	26.3%
	Bloodsugar >200 mg/dl	17	68.0%	11	84.6%	28	73.7%
	Total	25	100.0%	13	100.0%	38	100.0%

3. Treatment in people with known diabetes

	Males		Females		Total	
	n	%	n	%	n	%
No treatment	7	28.0%	4	30.8%	11	28.9%
Diet only	1	4.0%	3	23.1%	4	10.5%
Tablets	15	60.0%	5	38.5%	20	52.6%
Insulin	0	0.0%	0	0.0%	0	0.0%
Tablets + Insulin	0	0.0%	0	0.0%	0	0.0%
Other	2	8.0%	1	7.7%	3	7.9%
Total	25	100.0%	13	100.0%	38	100.0%

4. Last eye examination for DR among known diabetics

	Males		Females		Total	
	n	%	n	%	n	%
Never had eye examination for DR	17	68.0%	12	92.3%	29	76.3%
0-12 months ago	3	12.0%	0	0.0%	3	7.9%
13-24 months ago	2	8.0%	0	0.0%	2	5.3%
>24 months ago	3	12.0%	1	7.7%	4	10.5%
Total	25	100.0%	13	100.0%	38	100.0%

5. Prevalence of DR in diabetics and in entire sample

	N	Among diabetics p (95% CI)	Full sample p (95% CI)
Retinopathy grade			
No retinopathy (R0)	99	88.4% (82.5-94.3)	3.6% (2.8-4.4)
Background DR - mild (R1)	3	2.7% (0.0-5.7)	0.1% (0.0-0.2)
Background DR - observable (R2)	3	2.7% (0.0-5.6)	0.1% (0.0-0.2)
Background DR - referable (R3)	1	0.9% (0.0-2.7)	0.0% (0.0-0.1)
Proliferative DR (R4)	0	0.0% (0.0-0.0)	0.0% (0.0-0.0)
Ungradable DR (R6)	1	0.9% (0.0-2.7)	0.0% (0.0-0.1)
Any retinopathy	8	7.1% (2.5-11.8)	0.3% (0.1-0.5)
Maculopathy grade			
No maculopathy (M0)	89	79.5% (71.3-87.7)	3.2% (2.5-4.0)
Maculopathy - observable (M1)	2	1.8% (0.0-4.3)	0.1% (0.0-0.2)
Maculopathy - referable (M2)	0	0.0% (0.0-0.0)	0.0% (0.0-0.0)
Any maculopathy	18	16.1% (8.5-23.7)	0.7% (0.3-1.0)
Any retinopathy and/or maculopathy	22	19.6% (12.0-27.3)	0.8% (0.5-1.1)
Sight threatening DR (R4 and/or M2)	0	0.0% (0.0-0.0)	0.0% (0.0-0.0)
Any laser scars	16	14.3% (7.3-21.3)	0.6% (0.3-0.9)

6. Prevalence of any retinopathy and/or maculopathy by age and gender

	Males		Females		Total	
	n	p (95% CI)	n	p (95% CI)	n	p (95% CI)
50 - 59	3	11.5% (0.4-22.7)	1	5.6% (0.0-16.4)	4	9.1% (1.0-17.2)
60 - 69	0	0.0% (0.0-0.0)	0	0.0% (0.0-0.0)	0	0.0% (0.0-0.0)
70 - 79	2	15.4% (0.0-36.1)	1	20.0% (0.0-55.5)	3	16.7% (0.0-34.7)
80+	0	0.0% (0.0-0.0)	0	0.0% (0.0-0.0)	0	0.0% (0.0-0.0)
All ages	5	7.2% (1.5-13.0)	2	4.7% (0.0-10.9)	7	6.3% (1.9-10.6)

7. Prevalence of MVI, SVI and blindness among people with and without diabetes

	Persons with diabetes		Persons without diabetes	
	n	p (95% CI)	n	p (95% CI)
Normal vision	81	72.3% (62.8-81.8)	1,996	75.9% (73.9-77.9)
Early VI	18	16.1% (7.6-24.6)	328	12.5% (11.0-13.9)
Moderate VI	10	8.9% (3.1-14.7)	200	7.6% (6.3-8.9)
Severe VI	0	0.0% (0.0-0.0)	49	1.9% (1.3-2.5)
Blindness	1	0.9% (0.0-2.7)	41	1.6% (1.2-1.9)

8. Causes of visual impairment among people with and without diabetes

	Blindness		Severe VI		Moderate VI		Early VI	
	DM		Non-DM		DM		Non-DM	
	n	%	n	%	n	%	n	%
Refr. error	0	0%	1	1%	0	0%	1	10%
Cataract	1	33%	27	47%	33	16%	12	66%
Other PSD	2	66%	10	17%	8	67%	8	80%
Other	0	0%	19	33%	8	16%	145	72%
							6	3%
							1	5%
							0	0%
							28	8%
Total	3	100%	57	100%	49	100%	10	100%
							200	100%
							18	100%
							328	100%