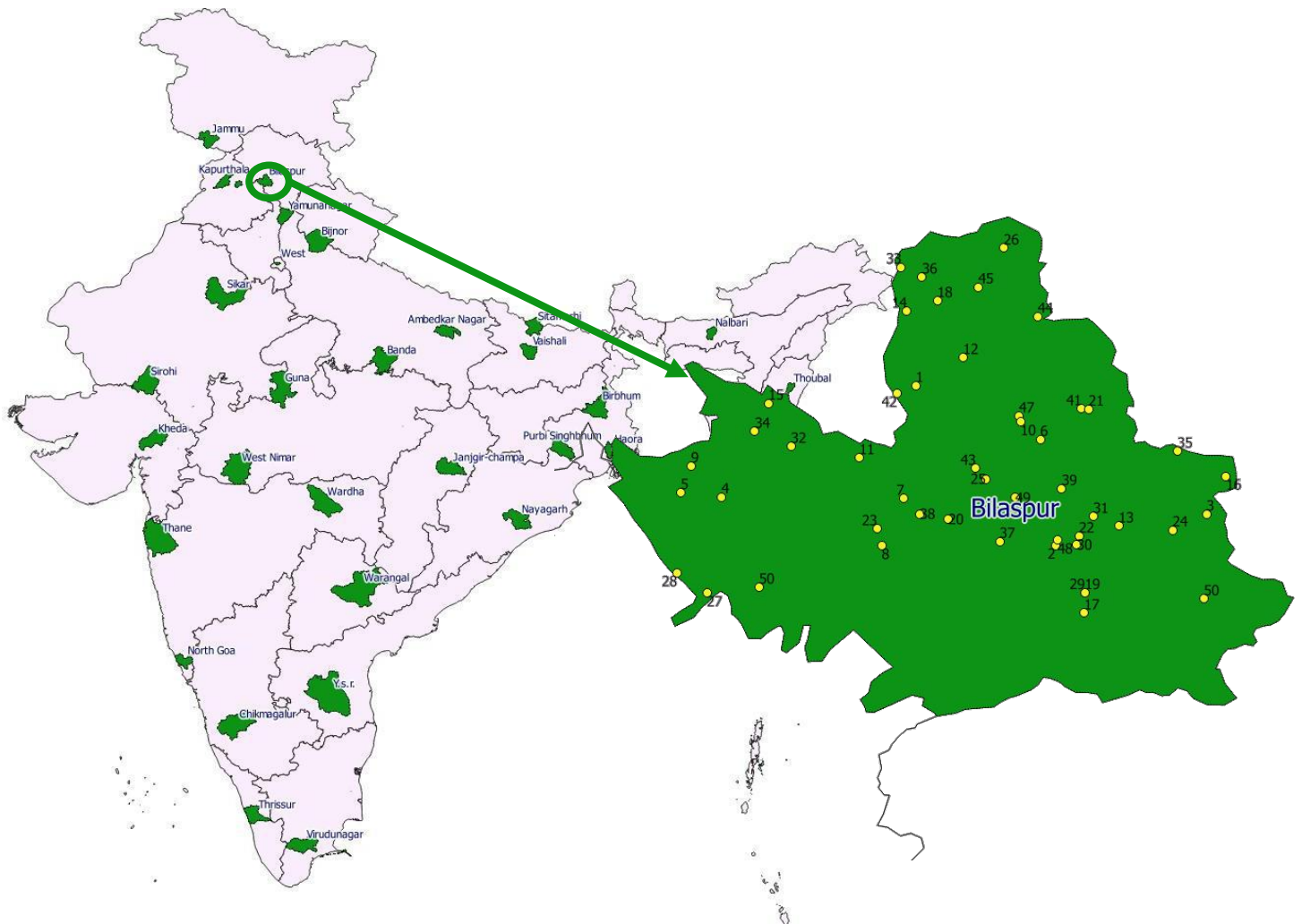


NPCB National Blindness Survey: 2015-2018

DISTRICT SUMMARY REPORT

Bilaspur, Himachal Pradesh





NPCB National Blindness Survey: 2015-2018

DISTRICT SUMMARY REPORT

Bilaspur, Himachal Pradesh

April 2017

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RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SUMMARY REPORT

Date and time of report: 04-May-16 10:48:33AM

This report is for the survey area: BILASPUR

Year and month when survey was conducted: 2016- 4 until 2016- 4

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	1,122	84.6%	204	15.4%	0	0.0%	1	0.1%	1,327	100.0%
Females	1,596	95.4%	74	4.4%	2	0.1%	1	0.1%	1,673	100.0%
Total	2,718	90.6%	278	9.3%	2	0.1%	2	0.1%	3,000	100.0%

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

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	461	41.1%	737	46.2%	1,198	44.1%
60 - 69 years	343	30.6%	417	26.1%	760	28.0%
70 - 79 years	195	17.4%	260	16.3%	455	16.7%
80+ years	123	11.0%	182	11.4%	305	11.2%
Total	1,122	100.0%	1,596	100.0%	2,718	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	16	1.4 (0.7 - 2.1)	30	1.9 (1.2 - 2.6)	46	1.7 (1.2 - 2.2)
Severe VI	12	1.1 (0.5 - 1.7)	27	1.7 (1.1 - 2.3)	39	1.4 (1.0 - 1.9)
Moderate VI	74	6.6 (4.9 - 8.3)	128	8.0 (6.5 - 9.5)	202	7.4 (6.3 - 8.5)
Early VI	125	11.1 (8.8 - 13.5)	198	12.4 (10.2 - 14.6)	323	11.9 (10.0 - 13.8)
Functional Low Vision	18	1.6 (0.8 - 2.5)	21	1.3 (0.8 - 1.8)	39	1.4 (0.9 - 1.9)

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	1,322	0.9 (0.2 - 1.6)	1,923	1.2 (0.5 - 1.9)	3,246	1.1 (0.6 - 1.6)
Severe VI	1,172	0.8 (0.2 - 1.4)	2,110	1.3 (0.7 - 1.9)	3,283	1.1 (0.6 - 1.5)
Moderate VI	7,029	4.8 (3.2 - 6.5)	11,280	7.0 (5.5 - 8.5)	18,307	6.0 (4.9 - 7.1)
Early VI	13,777	9.5 (7.2 - 11.8)	19,668	12.3 (10.1 - 14.4)	33,443	10.9 (9.0 - 12.8)
Functional Low Vision	1,943	1.3 (0.5 - 2.2)	1,733	1.1 (0.6 - 1.6)	3,677	1.2 (0.7 - 1.7)

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

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
50 - 59 years	3	0.7 (0.0 - 1.4)	2	0.3 (0.0 - 0.6)	5	0.4 (0.1 - 0.8)
60 - 69 years	0	0.0 (0.0 - 0.0)	2	0.5 (0.0 - 1.1)	2	0.3 (0.0 - 0.6)
70 - 79 years	4	2.1 (0.2 - 3.9)	2	0.8 (0.0 - 1.8)	6	1.3 (0.3 - 2.3)
80+ years	9	7.3 (3.0 - 11.6)	24	13.2 (7.7 - 18.6)	33	10.8 (7.3 - 14.4)
All 50+ years	16	1.4 (0.7 - 2.1)	30	1.9 (1.2 - 2.6)	46	1.7 (1.2 - 2.2)

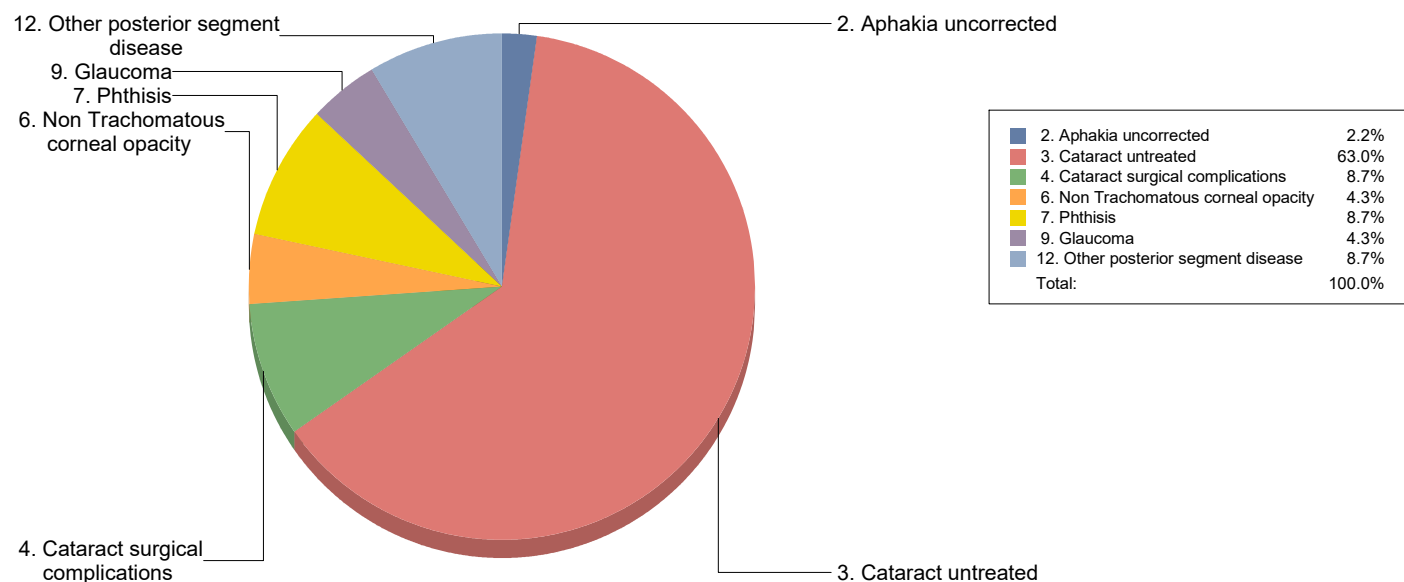
6. Principal cause of blindness, severe (SVI), moderate (MVI) and early (EVI) visual impairment in persons (PVA)

	Blindness		Severe VI		Moderate VI		Early VI	
	n	%	n	%	n	%	n	%
1. Refractive error	0	0.0%	0	0.0%	25	12.4%	247	76.5%
2. Aphakia uncorrected	1	2.2%	2	5.1%	2	1.0%	1	0.3%
3. Cataract untreated	29	63.0%	22	56.4%	137	67.8%	58	18.0%
4. Cataract surgical complications	4	8.7%	7	17.9%	19	9.4%	10	3.1%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	2	4.3%	0	0.0%	2	1.0%	1	0.3%
7. Phthisis	4	8.7%	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	2	4.3%	1	2.6%	1	0.5%	1	0.3%
10. Diabetic retinopathy	0	0.0%	1	2.6%	2	1.0%	0	0.0%
11. ARMD	0	0.0%	0	0.0%	3	1.5%	1	0.3%
12. Other posterior segment disease	4	8.7%	6	15.4%	10	5.0%	3	0.9%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	1	0.5%	1	0.3%
Total	46	100.0%	39	100.0%	202	100.0%	323	100.0%

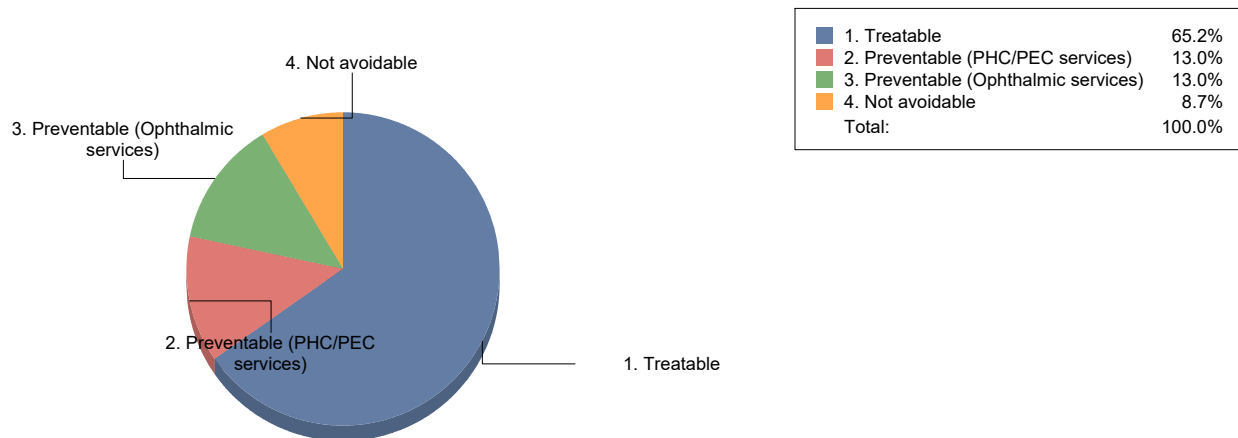
Blindness, SVI, MVI and EVI in persons by intervention category

A. Treatable (1,2,3)	30	65.2%	24	61.5%	164	81.2%	306	94.7%
B. Preventable (PHC/PEC services) (5,6,7,8)	6	13.0%	0	0.0%	2	1.0%	1	0.3%
C. Preventable (Ophthalmic services) (4,9,10)	6	13.0%	9	23.1%	22	10.9%	11	3.4%
D. Avoidable (A+B+C)	42	91.3%	33	84.6%	188	93.1%	318	98.5%
E. Posterior segment causes (8,9,10,11,12)	6	13.0%	8	20.5%	16	7.9%	5	1.6%

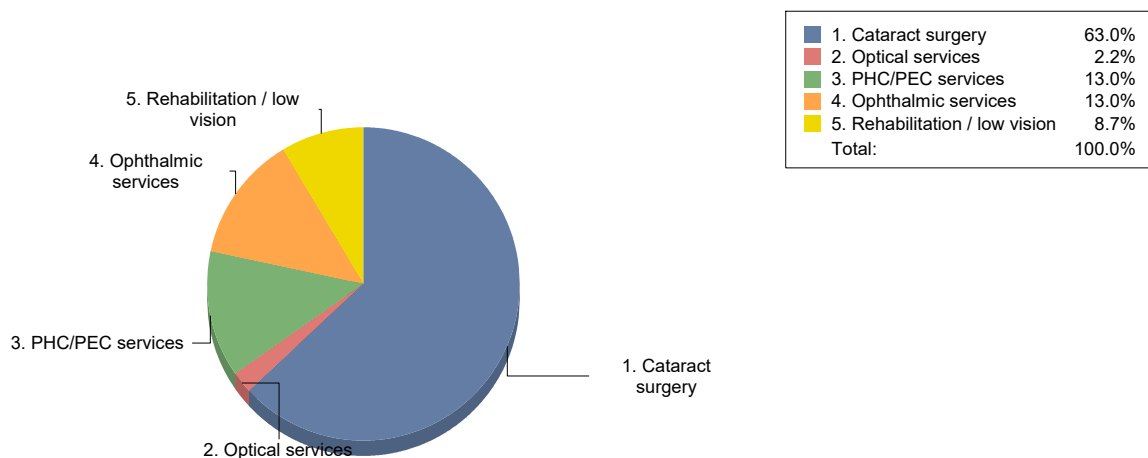
7. Graph: main cause of blindness in persons



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	94.9	93.3	94.0
VA < 6/60	92.9	89.4	90.9
VA < 6/18	80.3	80.2	80.2

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

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	2	20.0%	5	26.3%	7	24.1%
Fear	1	10.0%	1	5.3%	2	6.9%
Cost	3	30.0%	3	15.8%	6	20.7%
Treatment denied by provider	0	0.0%	2	10.5%	2	6.9%
Unaware treatment is possible	0	0.0%	1	5.3%	1	3.4%
Cannot access treatment	0	0.0%	1	5.3%	1	3.4%
Local reason	4	40.0%	6	31.6%	10	34.5%
Total	10	100.0%	19	100.0%	29	100.0%

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

	Males		Females		Total	
	n	%	n	%	n	%
Very good: can see 6/12	163	52.4%	196	51.4%	359	51.9%
Good: can see 6/18	57	18.3%	67	17.6%	124	17.9%
Borderline: can see 6/60	50	16.1%	61	16.0%	111	16.0%
Poor: cannot see 6/60	41	13.2%	57	15.0%	98	14.2%
Total	311	100.0%	381	100.0%	692	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	12.8%	354	54.2%	359	51.9%
Good: can see 6/18	6	15.4%	118	18.1%	124	17.9%
Borderline: can see 6/60	5	12.8%	106	16.2%	111	16.0%
Poor: cannot see 6/60	23	59.0%	75	11.5%	98	14.2%
Total	39	100.0%	653	100.0%	692	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%	359	100.0%
Good: can see 6/18	5	9.3%	25	21.4%	90	79.6%	4	8.2%	0	0.0%
Borderline: can see 6/60	18	33.3%	53	45.3%	21	18.6%	19	38.8%	0	0.0%
Poor: cannot see 6/60	31	57.4%	39	33.3%	2	1.8%	26	53.1%	0	0.0%
Total	54	100.0%	117	100.0%	113	100.0%	49	100.0%	359	100.0%

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report: 04-May-16 10:53:48AM

This report is for the survey area: BILASPUR

Year and month when survey was conducted: 2016- 4 until 2016- 4

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	1,122	84.6%	204	15.4%	0	0.0%	1	0.1%	1,327	100.0%
Females	1,596	95.4%	74	4.4%	2	0.1%	1	0.1%	1,673	100.0%
Total	2,718	90.6%	278	9.3%	2	0.1%	2	0.1%	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	14	1.3% (0.6-1.9)	27	1.7% (1.0-2.3)	41	1.5% (1.0-2.0)
All blind eyes	109	4.9% (3.9-5.9)	137	4.3% (3.5-5.1)	246	4.5% (3.9-5.2)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	16	1.4% (0.7-2.1)	30	1.9% (1.2-2.6)	46	1.7% (1.2-2.2)
All blind eyes	119	5.3% (4.3-6.3)	159	5.0% (4.1-5.9)	278	5.1% (4.4-5.8)
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral Severe VI	12	1.1% (0.5-1.7)	27	1.7% (1.1-2.3)	39	1.4% (1.0-1.9)
All Severe VI eyes	47	2.1% (1.5-2.7)	76	2.4% (1.8-2.9)	123	2.3% (1.8-2.7)
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral MVI	74	6.6% (4.9-8.3)	128	8.0% (6.5-9.5)	202	7.4% (6.3-8.5)
All Moderate VI eyes	197	8.8% (7.2-10.3)	310	9.7% (8.2-11.2)	507	9.3% (8.3-10.4)
Early visual impairment (EVI) - VA<6/12 - 6/18 in the better eye with available correction						
All bilateral EVI	125	11.1% (8.8-13.5)	198	12.4% (10.2-14.6)	323	11.9% (10.0-13.8)
All Early VI eyes	276	12.3% (10.0-14.6)	480	15.0% (12.9-17.2)	756	13.9% (12.1-15.7)

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	16	1.4% (0.7-2.1)	30	1.9% (1.2-2.6)	46	1.7% (1.2-2.2)
All blind eyes	119	5.3% (4.3-6.3)	159	5.0% (4.1-5.9)	278	5.1% (4.4-5.8)
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	28	2.5% (1.6-3.4)	57	3.6% (2.7-4.4)	85	3.1% (2.5-3.8)
All eyes	166	7.4% (6.2-8.6)	235	7.4% (6.3-8.5)	401	7.4% (6.5-8.2)
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	102	9.1% (7.2-11.0)	185	11.6% (9.9-13.3)	287	10.6% (9.3-11.9)
All eyes	363	16.2% (14.1-18.3)	545	17.1% (15.0-19.1)	908	16.7% (15.2-18.2)
VA<6/12 in the better eye, with available correction (presenting VA)						
All bilateral cases	227	20.2% (17.3-23.1)	383	24.0% (21.1-26.9)	610	22.4% (20.0-24.9)
All eyes	639	28.5% (25.4-31.5)	1,025	32.1% (29.1-35.1)	1,664	30.6% (28.1-33.2)

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	0	0.0%	0	0.0%	0	0.0%
2. Aphakia uncorrected	1	6.3%	0	0.0%	1	2.2%
3. Cataract untreated	8	50.0%	21	70.0%	29	63.0%
4. Cataract surgical complications	2	12.5%	2	6.7%	4	8.7%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	0	0.0%	2	6.7%	2	4.3%
7. Phthisis	1	6.3%	3	10.0%	4	8.7%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	2	12.5%	0	0.0%	2	4.3%
10. Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
11. ARMD	0	0.0%	0	0.0%	0	0.0%
12. Other posterior segment disease	2	12.5%	2	6.7%	4	8.7%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	16	100.0%	30	100.0%	46	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	9	56.3%	21	70.0%	30	65.2%
B. Preventable (PHC/PEC services) (5,6,7,8)	1	6.3%	5	16.7%	6	13.0%
C. Preventable (Ophthalmic services) (4,9,10)	4	25.0%	2	6.7%	6	13.0%
D. Avoidable (A+B+C)	14	87.5%	28	93.3%	42	91.3%
E. Posterior segment causes (8,9,10,11,12)	4	25.0%	2	6.7%	6	13.0%

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	0	0.0%	0	0.0%	0	0.0%
2. Aphakia uncorrected	2	1.7%	5	3.1%	7	2.5%
3. Cataract untreated	47	39.5%	85	53.5%	132	47.5%
4. Cataract surgical complications	14	11.8%	13	8.2%	27	9.7%
5. Trachomatous corneal opacity	0	0.0%	1	0.6%	1	0.4%
6. Non Trachomatous corneal opacity	12	10.1%	11	6.9%	23	8.3%
7. Phthisis	13	10.9%	8	5.0%	21	7.6%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	9	7.6%	6	3.8%	15	5.4%
10. Diabetic retinopathy	2	1.7%	1	0.6%	3	1.1%
11. ARMD	1	0.8%	0	0.0%	1	0.4%
12. Other posterior segment disease	19	16.0%	20	12.6%	39	14.0%
13. All other globe/CNS abnormalities	0	0.0%	9	5.7%	9	3.2%
Total	119	100.0%	159	100.0%	278	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	49	41.2%	90	56.6%	139	50.0%
B. Preventable (PHC/PEC services) (5,6,7,8)	25	21.0%	20	12.6%	45	16.2%
C. Preventable (Ophthalmic services) (4,9,10)	25	21.0%	20	12.6%	45	16.2%
D. Avoidable (A+B+C)	99	83.2%	130	81.8%	229	82.4%
E. Posterior segment causes (8,9,10,11,12)	31	26.1%	27	17.0%	58	20.9%

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	0	0.0%	0	0.0%	0	0.0%
2. Aphakia uncorrected	0	0.0%	2	7.4%	2	5.1%
3. Cataract untreated	8	66.7%	14	51.9%	22	56.4%
4. Cataract surgical complications	2	16.7%	5	18.5%	7	17.9%
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%	1	3.7%	1	2.6%
10. Diabetic retinopathy	0	0.0%	1	3.7%	1	2.6%
11. ARMD	0	0.0%	0	0.0%	0	0.0%
12. Other posterior segment disease	2	16.7%	4	14.8%	6	15.4%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	12	100.0%	27	100.0%	39	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	8	66.7%	16	59.3%	24	61.5%
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)	2	16.7%	7	25.9%	9	23.1%
D. Avoidable (A+B+C)	10	83.3%	23	85.2%	33	84.6%
E. Posterior segment causes (8,9,10,11,12)	2	16.7%	6	22.2%	8	20.5%

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

	n	Males %	n	Females %	n	Total %
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	30	63.8%	39	51.3%	69	56.1%
4. Cataract surgical complications	5	10.6%	17	22.4%	22	17.9%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	2	4.3%	2	2.6%	4	3.3%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	0	0.0%	1	1.3%	1	0.8%
10. Diabetic retinopathy	0	0.0%	4	5.3%	4	3.3%
11. ARMD	1	2.1%	1	1.3%	2	1.6%
12. Other posterior segment disease	8	17.0%	12	15.8%	20	16.3%
13. All other globe/CNS abnormalities	1	2.1%	0	0.0%	1	0.8%
Total	47	100.0%	76	100.0%	123	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	30	63.8%	39	51.3%	69	56.1%
B. Preventable (PHC/PEC services) (5,6,7,8)	2	4.3%	2	2.6%	4	3.3%
C. Preventable (Ophthalmic services) (4,9,10)	5	10.6%	22	28.9%	27	22.0%
D. Avoidable (A+B+C)	37	78.7%	63	82.9%	100	81.3%
E. Posterior segment causes (8,9,10,11,12)	9	19.1%	18	23.7%	27	22.0%

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	2	2.7%	23	18.0%	25	12.4%
2. Aphakia uncorrected	0	0.0%	2	1.6%	2	1.0%
3. Cataract untreated	55	74.3%	82	64.1%	137	67.8%
4. Cataract surgical complications	9	12.2%	10	7.8%	19	9.4%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	0	0.0%	2	1.6%	2	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	1.4%	0	0.0%	1	0.5%
10. Diabetic retinopathy	0	0.0%	2	1.6%	2	1.0%
11. ARMD	3	4.1%	0	0.0%	3	1.5%
12. Other posterior segment disease	3	4.1%	7	5.5%	10	5.0%
13. All other globe/CNS abnormalities	1	1.4%	0	0.0%	1	0.5%
Total	74	100.0%	128	100.0%	202	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	57	77.0%	107	83.6%	164	81.2%
B. Preventable (PHC/PEC services) (5,6,7,8)	0	0.0%	2	1.6%	2	1.0%
C. Preventable (Ophthalmic services) (4,9,10)	10	13.5%	12	9.4%	22	10.9%
D. Avoidable (A+B+C)	67	90.5%	121	94.5%	188	93.1%
E. Posterior segment causes (8,9,10,11,12)	7	9.5%	9	7.0%	16	7.9%

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	28	14.2%	55	17.7%	83	16.4%
2. Aphakia uncorrected	0	0.0%	2	0.6%	2	0.4%
3. Cataract untreated	119	60.4%	185	59.7%	304	60.0%
4. Cataract surgical complications	26	13.2%	36	11.6%	62	12.2%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	2	1.0%	5	1.6%	7	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	0.5%	0	0.0%	1	0.2%
10. Diabetic retinopathy	0	0.0%	4	1.3%	4	0.8%
11. ARMD	5	2.5%	1	0.3%	6	1.2%
12. Other posterior segment disease	12	6.1%	21	6.8%	33	6.5%
13. All other globe/CNS abnormalities	4	2.0%	1	0.3%	5	1.0%
Total	197	100.0%	310	100.0%	507	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	147	74.6%	242	78.1%	389	76.7%
B. Preventable (PHC/PEC services) (5,6,7,8)	2	1.0%	5	1.6%	7	1.4%
C. Preventable (Ophthalmic services) (4,9,10)	27	13.7%	40	12.9%	67	13.2%
D. Avoidable (A+B+C)	176	89.3%	287	92.6%	463	91.3%
E. Posterior segment causes (8,9,10,11,12)	18	9.1%	26	8.4%	44	8.7%

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	93	74.4%	154	77.8%	247	76.5%
2. Aphakia uncorrected	0	0.0%	1	0.5%	1	0.3%
3. Cataract untreated	23	18.4%	35	17.7%	58	18.0%
4. Cataract surgical complications	5	4.0%	5	2.5%	10	3.1%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	0	0.0%	1	0.5%	1	0.3%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	1	0.8%	0	0.0%	1	0.3%
10. Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
11. ARMD	1	0.8%	0	0.0%	1	0.3%
12. Other posterior segment disease	1	0.8%	2	1.0%	3	0.9%
13. All other globe/CNS abnormalities	1	0.8%	0	0.0%	1	0.3%
Total	125	100.0%	198	100.0%	323	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	116	92.8%	190	96.0%	306	94.7%
B. Preventable (PHC/PEC services) (5,6,7,8)	0	0.0%	1	0.5%	1	0.3%
C. Preventable (Ophthalmic services) (4,9,10)	6	4.8%	5	2.5%	11	3.4%
D. Avoidable (A+B+C)	122	97.6%	196	99.0%	318	98.5%
E. Posterior segment causes (8,9,10,11,12)	3	2.4%	2	1.0%	5	1.6%

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	214	77.5%	373	77.7%	587	77.6%
2. Aphakia uncorrected	0	0.0%	0	0.0%	0	0.0%
3. Cataract untreated	40	14.5%	80	16.7%	120	15.9%
4. Cataract surgical complications	12	4.3%	15	3.1%	27	3.6%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	1	0.4%	4	0.8%	5	0.7%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	2	0.7%	0	0.0%	2	0.3%
10. Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
11. ARMD	2	0.7%	1	0.2%	3	0.4%
12. Other posterior segment disease	4	1.4%	7	1.5%	11	1.5%
13. All other globe/CNS abnormalities	1	0.4%	0	0.0%	1	0.1%
Total	276	100.0%	480	100.0%	756	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	254	92.0%	453	94.4%	707	93.5%
B. Preventable (PHC/PEC services) (5,6,7,8)	1	0.4%	4	0.8%	5	0.7%
C. Preventable (Ophthalmic services) (4,9,10)	14	5.1%	15	3.1%	29	3.8%
D. Avoidable (A+B+C)	269	97.5%	472	98.3%	741	98.0%
E. Posterior segment causes (8,9,10,11,12)	8	2.9%	8	1.7%	16	2.1%

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	0.6% (0.1-1.1)	11	0.7% (0.3-1.1)	18	0.7% (0.4-0.9)
Unilateral cataract	32	2.9% (1.9-3.8)	57	3.6% (2.7-4.4)	89	3.3% (2.6-3.9)
Cataract eyes	46	2.1% (1.4-2.7)	79	2.5% (1.9-3.0)	125	2.3% (1.9-2.7)
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	10	0.9% (0.3-1.5)	19	1.2% (0.7-1.6)	29	1.1% (0.7-1.5)
Unilateral cataract	33	2.9% (3.2-5.6)	67	4.2% (3.7-5.4)	100	3.7% (3.7-5.3)
Cataract eyes	53	2.4% (1.7-3.1)	105	3.3% (2.6-4.0)	158	2.9% (2.4-3.4)
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	35	3.1% (2.1-4.1)	45	2.8% (1.9-3.7)	80	2.9% (2.2-3.6)
Unilateral cataract	65	5.8% (4.3-7.3)	119	7.5% (6.1-8.8)	184	6.8% (5.7-7.8)
Cataract eyes	135	6.0% (4.8-7.2)	209	6.6% (5.4-7.7)	344	6.3% (5.5-7.2)
Cataract and VA<6/12 with best correction or pinhole						
Bilateral cataract	77	6.9% (5.4-8.3)	116	7.3% (5.9-8.7)	193	7.1% (6.1-8.1)
Unilateral cataract	86	7.7% (6.0-9.3)	170	10.7% (8.9-12.4)	256	9.4% (8.3-10.5)
Cataract eyes	240	10.7% (8.9-12.4)	402	12.6% (10.9-14.3)	642	11.8% (10.6-13.1)

13. Sample prevalence of (pseudo)aphakia

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Bilateral (pseudo)aphakia	113	10.1% (8.0-12.2)	119	7.5% (6.0-8.9)	232	8.5% (7.2-9.9)
Unilateral (pseudo)aphakia	85	7.6% (6.4-8.8)	143	9.0% (7.4-10.5)	228	8.4% (7.3-9.5)
(Pseudo)aphakic eyes	311	13.9% (11.6-16.1)	381	11.9% (10.3-13.5)	692	12.7% (11.2-14.2)

14. Cataract Surgical Coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	87.1	82.8	84.7
VA < 6/60	85.4	78.4	81.4
VA < 6/18	69.7	64.6	66.8
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	94.9	93.3	94.0
VA < 6/60	92.9	89.4	90.9
VA < 6/18	80.3	80.2	80.3

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

	Males		Females		Total	
	n	%	n	%	n	%
First eyes	198	63.7	262	68.8	460	66.5
Second eyes	113	36.3	119	31.2	232	33.5

16. Uncorrected refractive error and uncorrected presbyopia

	Males		Females		Total	
	n	%	n	%	n	%
Total refractive errors	254	22.6	378	23.7	632	23.3
Uncorrected refractive errors	96	8.6	182	11.4	278	10.2
Uncorrected presbyopia	668	59.5	1,133	71.0	1,801	66.3

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

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59	3	0.7	3	0.4	6	0.5
60 - 69	4	1.2	4	1.0	8	1.1
70 - 79	7	3.6	4	1.5	11	2.4
80+	4	3.3	10	5.5	14	4.6
Total	18	1.6	21	1.3	39	1.4

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	33.3%	4	19.0%	10	25.6%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	0	0.0%	3	14.3%	3	7.7%
7. Phthisis	0	0.0%	1	4.8%	1	2.6%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	3	16.7%	1	4.8%	4	10.3%
10. Diabetic retinopathy	0	0.0%	3	14.3%	3	7.7%
11. ARMD	2	11.1%	0	0.0%	2	5.1%
12. Other posterior segment disease	6	33.3%	9	42.9%	15	38.5%
13. All other globe/CNS abnormalities	1	5.6%	0	0.0%	1	2.6%
Total	18	100.0%	21	100.0%	39	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)	0	0.0%	4	19.1%	4	10.3%
C. Preventable (Ophthalmic services) (4,9,10)	9	50.0%	8	38.1%	17	43.6%
D. Avoidable (A+B+C)	9	50.0%	12	57.1%	21	53.9%
E. Posterior segment causes (8,9,10,11,12)	11	61.1%	13	61.9%	24	61.5%

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

	Males		Females		Total	
	n	%	n	%	n	%
BCVA<3/60 - PL+	6	37.5	7	23.3	13	28.3
BCVA<6/60 - 3/60	1	8.3	6	22.2	7	18.0
BCVA<6/18 - 6/60	11	14.9	8	6.3	19	9.4
Total	18	17.7	21	11.4	39	13.6

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

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

Date and time of report:

04-May-16

10:54:27AM

This report is for the survey area:

BILASPUR

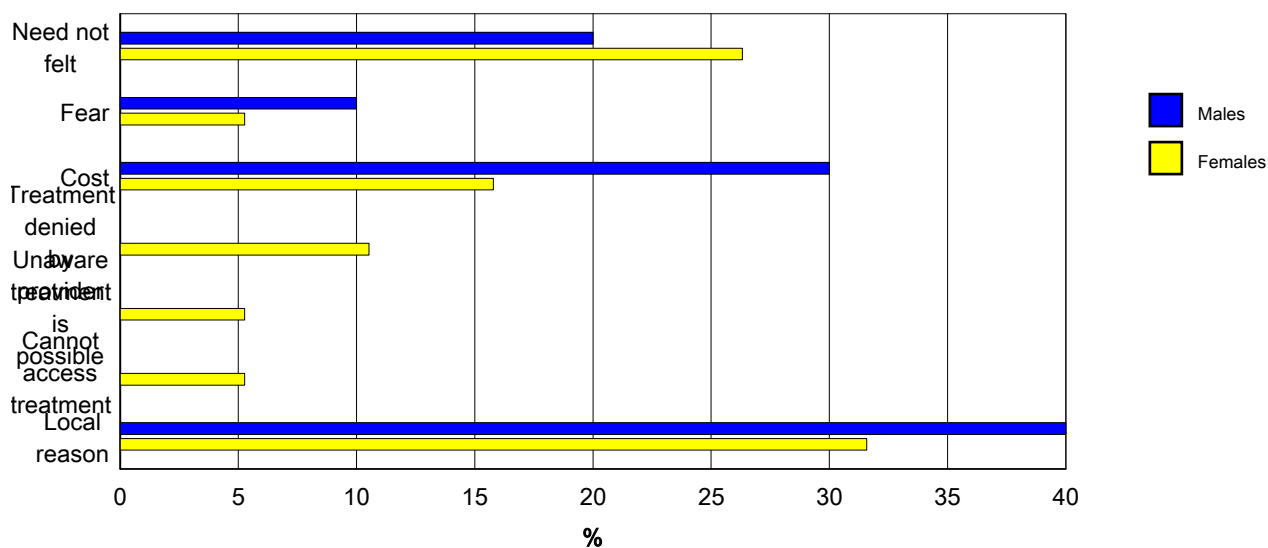
Year and month when survey was conducted:

2016- 4 until 2016- 4

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

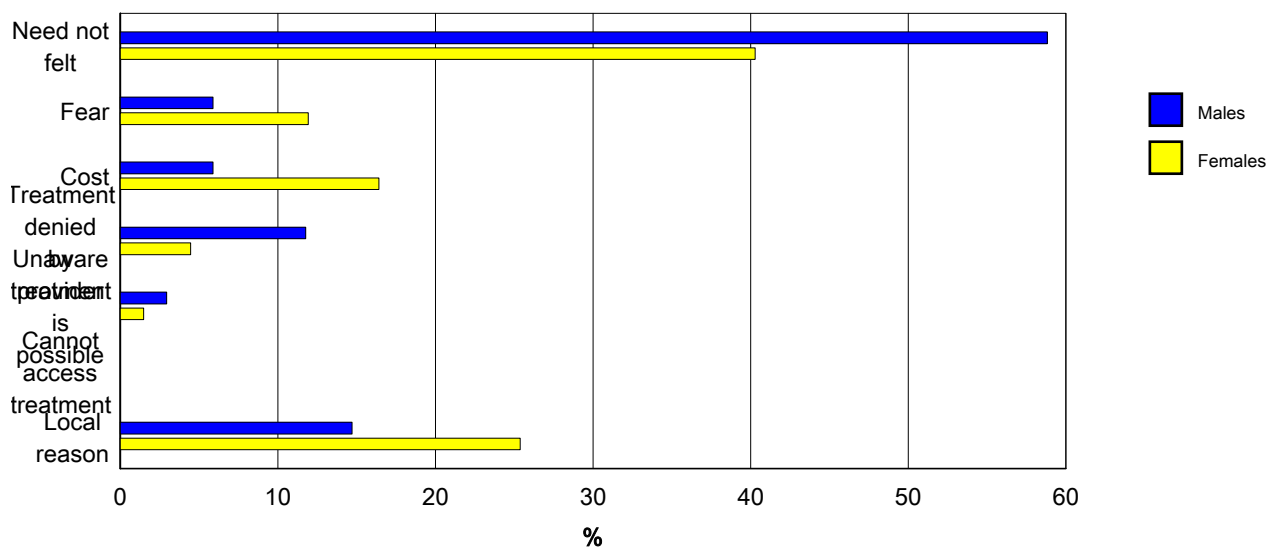
1. Barriers to cataract surgery in sample (bilateral BCVA<6/60 due to cataract)

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	2	20.0%	5	26.3%	7	24.1%
Fear	1	10.0%	1	5.3%	2	6.9%
Cost	3	30.0%	3	15.8%	6	20.7%
Treatment denied by provider	0	0.0%	2	10.5%	2	6.9%
Unaware treatment is possible	0	0.0%	1	5.3%	1	3.4%
Cannot access treatment	0	0.0%	1	5.3%	1	3.4%
Local reason	4	40.0%	6	31.6%	10	34.5%
Total	10	100.0%	19	100.0%	29	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	20	58.8%	27	40.3%	47	46.5%
Fear	2	5.9%	8	11.9%	10	9.9%
Cost	2	5.9%	11	16.4%	13	12.9%
Treatment denied by provider	4	11.8%	3	4.5%	7	6.9%
Unaware treatment is possible	1	2.9%	1	1.5%	2	2.0%
Cannot access treatment	0	0.0%	0	0.0%	0	0.0%
Local reason	5	14.7%	17	25.4%	22	21.8%
Total	34	100.0%	67	100.0%	101	100.0%



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

VISUAL OUTCOME AFTER CATARACT SURGERY (LONG-TERM OUTCOME)

Date and time of report: 04-May-16 10:54:54AM

This report is for the survey area: BILASPUR

Year and month when survey was conducted: 2016- 4 until 2016- 4

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	5	12.8%	354	54.2%	0	0.0%	359	51.9%
Good: can see 6/18	6	15.4%	118	18.1%	0	0.0%	124	17.9%
Borderline: can see 6/60	5	12.8%	106	16.2%	0	0.0%	111	16.0%
Poor: cannot see 6/60	23	59.0%	75	11.5%	0	0.0%	98	14.2%
Total	39	100.0%	653	100.0%	0	0.0%	692	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	8	20.5%	462	70.8%	0	0.0%	470	67.9%
Good: can see 6/18	7	17.9%	74	11.3%	0	0.0%	81	11.7%
Borderline: can see 6/60	4	10.3%	54	8.3%	0	0.0%	58	8.4%
Poor: cannot see 6/60	20	51.3%	63	9.6%	0	0.0%	83	12.0%
Total	39	100.0%	653	100.0%	0	0.0%	692	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	150	58.1%	102	56.4%	107	42.3%	359	51.9%
Good: can see 6/18	52	20.2%	35	19.3%	37	14.6%	124	17.9%
Borderline: can see 6/60	34	13.2%	27	14.9%	50	19.8%	111	16.0%
Poor: cannot see 6/60	22	8.5%	17	9.4%	59	23.3%	98	14.2%
Total	258	100.0%	181	100.0%	253	100.0%	692	100.0%

4. Age at time of surgery in males and females

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
1 - 29	2	0.6%	2	0.5%	4	0.6%
30 - 39	0	0.0%	0	0.0%	0	0.0%
40 - 49	11	3.5%	13	3.4%	24	3.5%
50 - 59	55	17.7%	67	17.6%	122	17.6%
60 - 69	94	30.2%	127	33.3%	221	31.9%
70 - 79	113	36.3%	131	34.4%	244	35.3%
80+	36	11.6%	41	10.8%	77	11.1%
Total	311	100.0%	381	100.0%	692	100.0%

5. Place of surgery by sex

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Government Hosp.	116	37.3	149	39.1	265	38.3
Voluntary/charitable hospital	31	10.0	18	4.7	49	7.1
Private hospital	149	47.9	196	51.4	345	49.9
Eyecamp	15	4.8	18	4.7	33	4.8
Total	311	100.0	381	100.0	692	100.0

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

	Gov. Hosp.		Vol. Hosp.		Priv. Hosp.		Eye camp		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Very good: can see 6/12	105	39.6	33	67.3	207	60.0	14	42.4	359	51.9
Good: can see 6/18	47	17.7	10	20.4	60	17.4	7	21.2	124	17.9
Borderline: can see 6/60	55	20.8	5	10.2	45	13.0	6	18.2	111	16.0
Poor: cannot see 6/60	58	21.9	1	2.0	33	9.6	6	18.2	98	14.2
Total	265	100.0	49	100.0	345	100.0	33	100.0	692	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	359	100.0	359	51.9
Good: can see 6/18	5	9.3	25	21.4	90	79.6	4	8.2	0	0.0	124	17.9
Borderline: can see 6/60	18	33.3	53	45.3	21	18.6	19	38.8	0	0.0	111	16.0
Poor: cannot see 6/60	31	57.4	39	33.3	2	1.8	26	53.1	0	0.0	98	14.2
Total	54	100.0	117	100.0	113	100.0	49	100.0	359	100.0	692	100.0

8. Proportion and type of surgery

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Non-IOL	22	7.1	17	4.5	39	5.6
IOL	289	92.9	364	95.5	653	94.4
Couching	0	0.0	0	0.0	0	0.0
Total	311	100.0	381	100.0	692	100.0

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

INDICATORS BY SEX AND BY AGE GROUP - FINDINGS FROM SAMPLE

Date and time of report: 04-May-16 10:55:18AM

This report is for the survey area: BILASPUR

Year and month when survey was conducted: 2016- 4 until 2016- 4

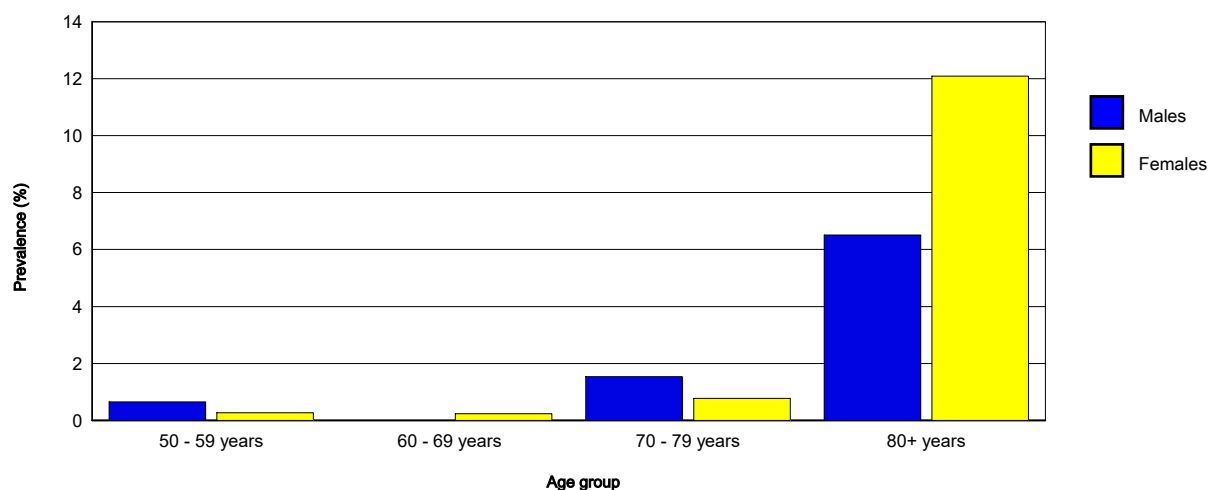
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals 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	461	41.1%	737	46.2%	1,198	43.6%
60 - 69 years	343	30.6%	417	26.1%	760	28.3%
70 - 79 years	195	17.4%	260	16.3%	455	16.8%
80+ years	123	11.0%	182	11.4%	305	11.2%
Total	1,122	100.0%	1,596	100.0%	2,718	100.0%

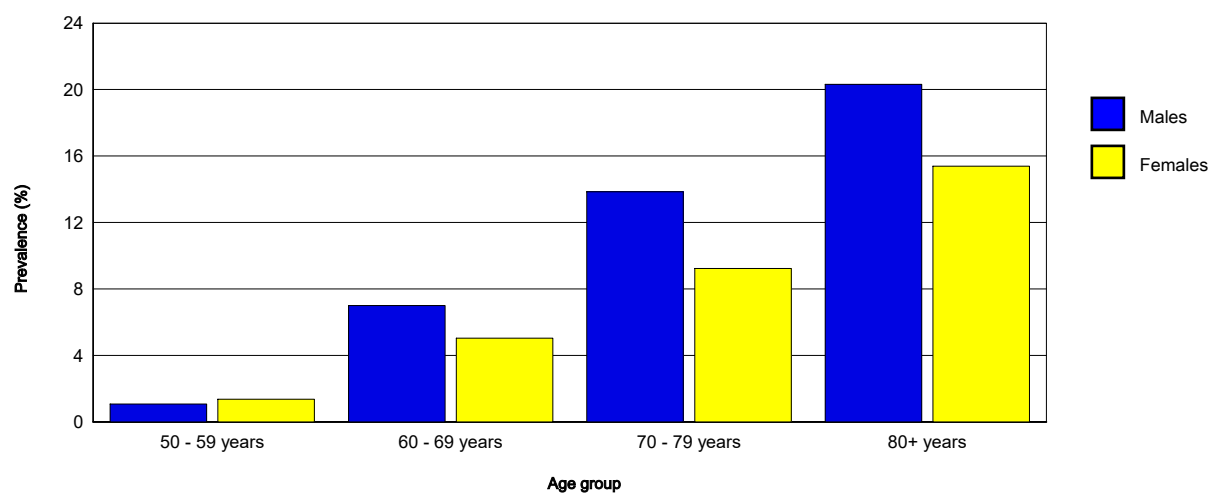
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.7%	2	0.3%	5	0.4%
60 - 69 years	0	0.0%	1	0.2%	1	0.1%
70 - 79 years	3	1.5%	2	0.8%	5	1.1%
80+ years	8	6.5%	22	12.1%	30	9.8%
Total	14	1.2%	27	1.7%	41	1.5%



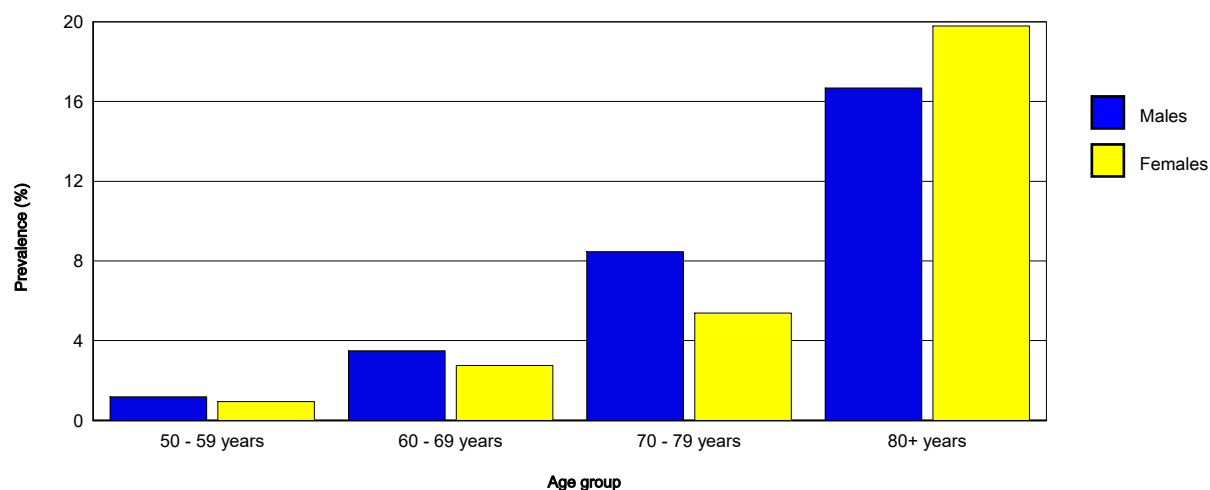
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	5	1.1%	10	1.4%	15	1.3%
60 - 69 years	24	7.0%	21	5.0%	45	5.9%
70 - 79 years	27	13.8%	24	9.2%	51	11.2%
80+ years	25	20.3%	28	15.4%	53	17.4%
Total	81	7.2%	83	5.2%	164	6.0%



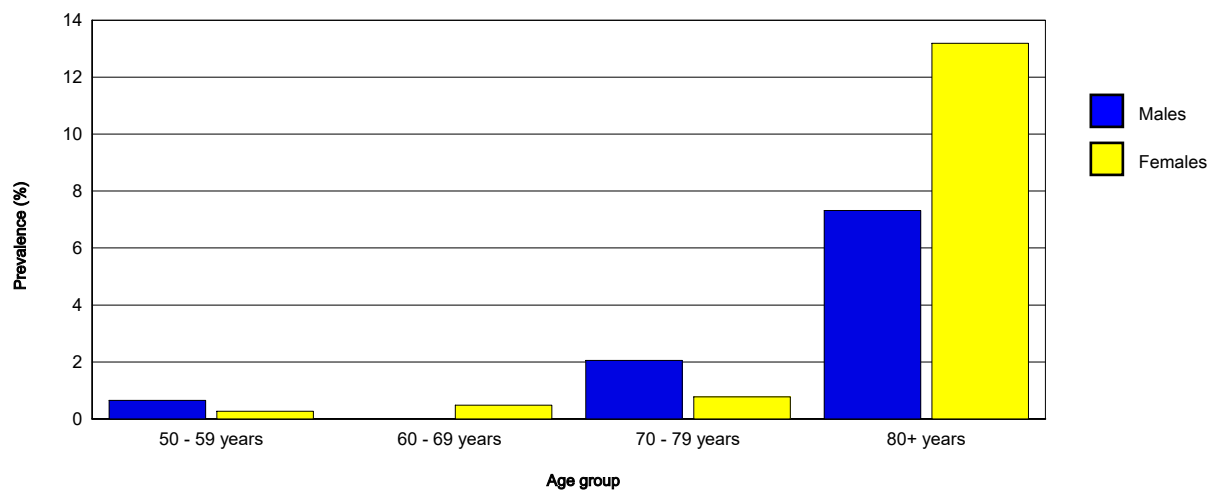
4. Prevalence of blind eyes - VA <3/60 with best correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	11	1.2%	14	0.9%	25	1.0%
60 - 69 years	24	3.5%	23	2.8%	47	3.1%
70 - 79 years	33	8.5%	28	5.4%	61	6.7%
80+ years	41	16.7%	72	19.8%	113	18.5%
Total	109	4.9%	137	4.3%	246	4.5%



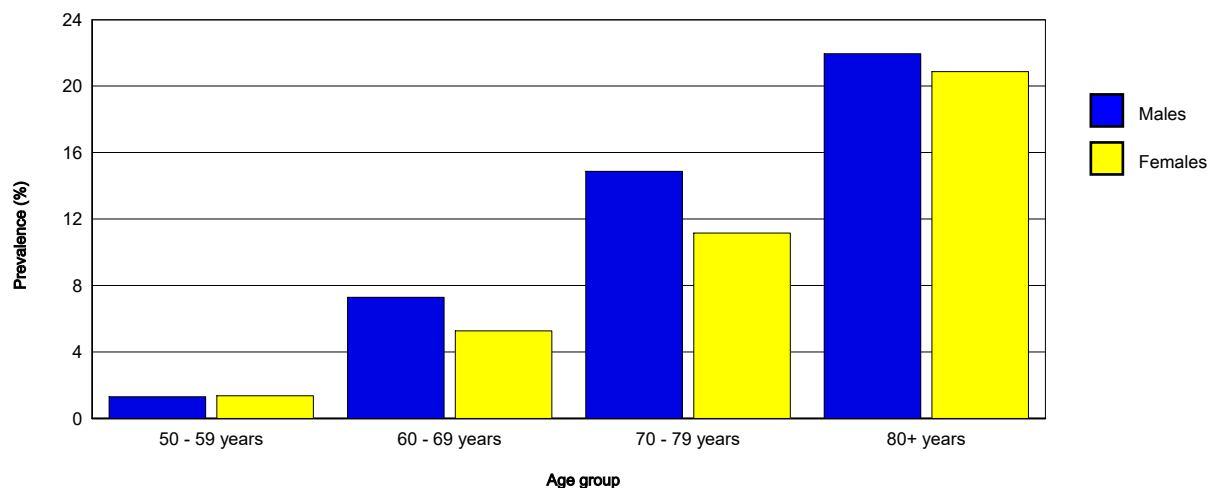
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	3	0.7%	2	0.3%	5	0.4%
60 - 69 years	0	0.0%	2	0.5%	2	0.3%
70 - 79 years	4	2.1%	2	0.8%	6	1.3%
80+ years	9	7.3%	24	13.2%	33	10.8%
Total	16	1.4%	30	1.9%	46	1.7%



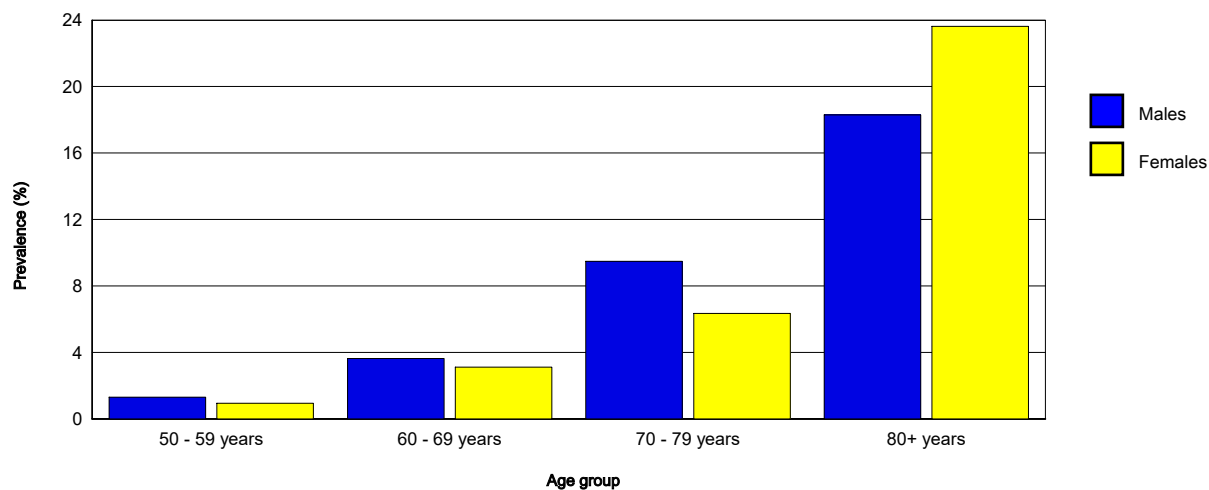
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	6	1.3%	10	1.4%	16	1.3%
60 - 69 years	25	7.3%	22	5.3%	47	6.2%
70 - 79 years	29	14.9%	29	11.2%	58	12.7%
80+ years	27	22.0%	38	20.9%	65	21.3%
Total	87	7.8%	99	6.2%	186	6.8%



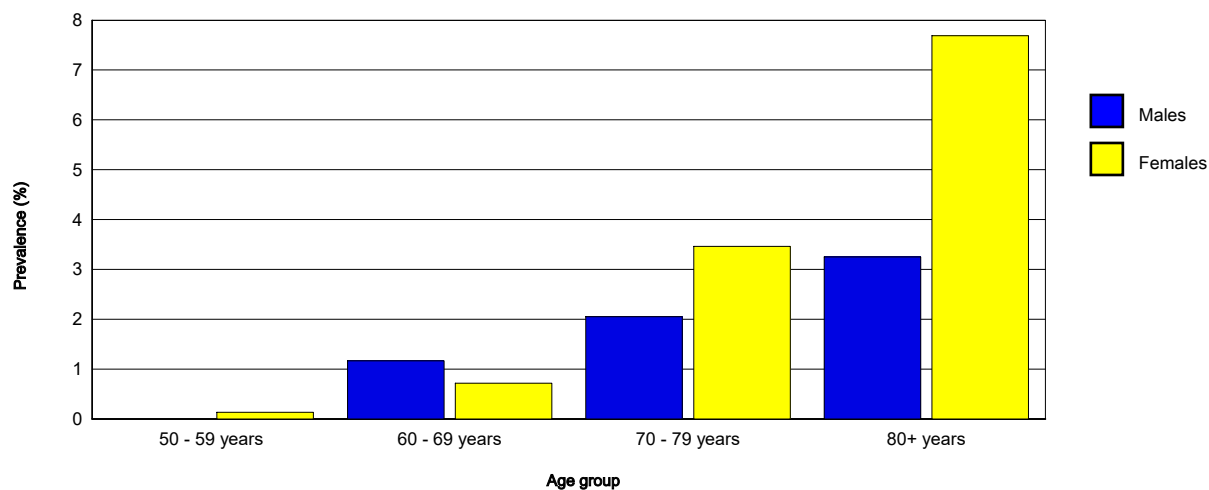
7. Prevalence of blind eyes - VA <3/60 with available correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	12	1.3%	14	0.9%	26	1.1%
60 - 69 years	25	3.6%	26	3.1%	51	3.4%
70 - 79 years	37	9.5%	33	6.3%	70	7.7%
80+ years	45	18.3%	86	23.6%	131	21.5%
Total	119	5.3%	159	5.0%	278	5.1%



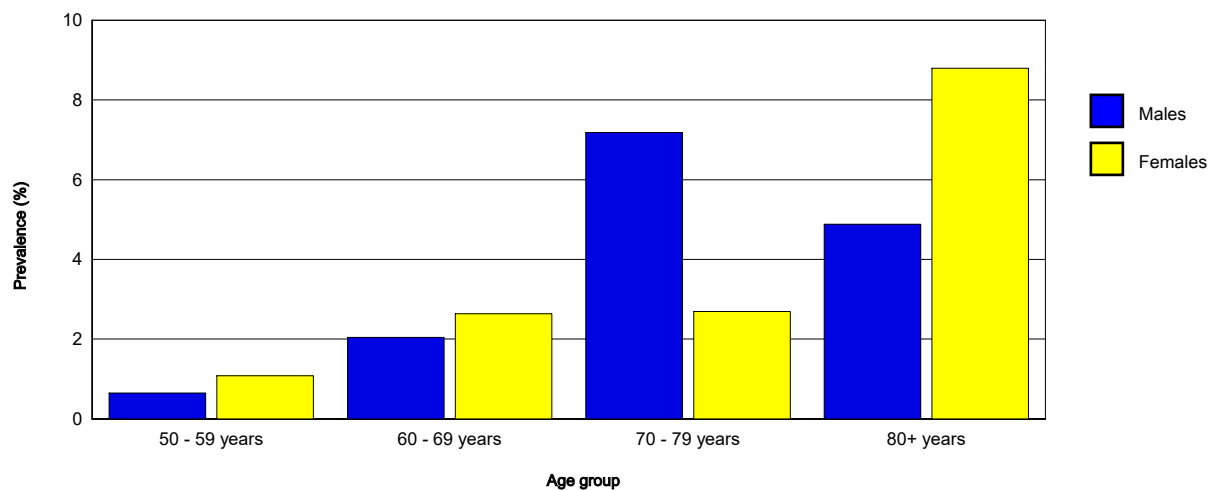
8. Prevalence of people with bilateral severe visual impairment - VA<6/60-3/60 in better eye with available correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	0	0.0%	1	0.1%	1	0.1%
60 - 69 years	4	1.2%	3	0.7%	7	0.9%
70 - 79 years	4	2.1%	9	3.5%	13	2.9%
80+ years	4	3.3%	14	7.7%	18	5.9%
Total	12	1.1%	27	1.7%	39	1.4%



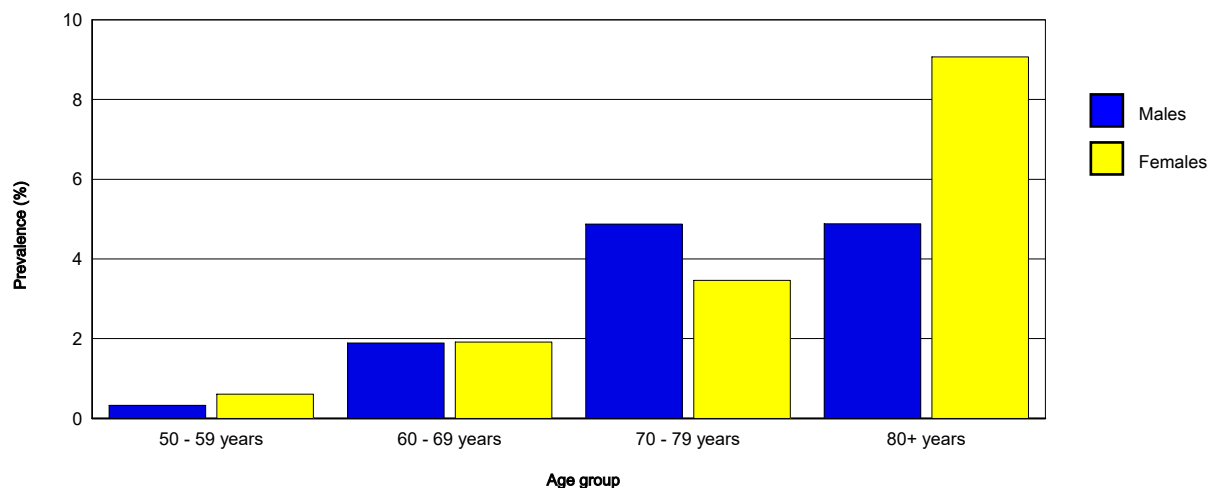
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	3	0.7%	8	1.1%	11	0.9%
60 - 69 years	7	2.0%	11	2.6%	18	2.4%
70 - 79 years	14	7.2%	7	2.7%	21	4.6%
80+ years	6	4.9%	16	8.8%	22	7.2%
Total	30	2.7%	42	2.6%	72	2.6%



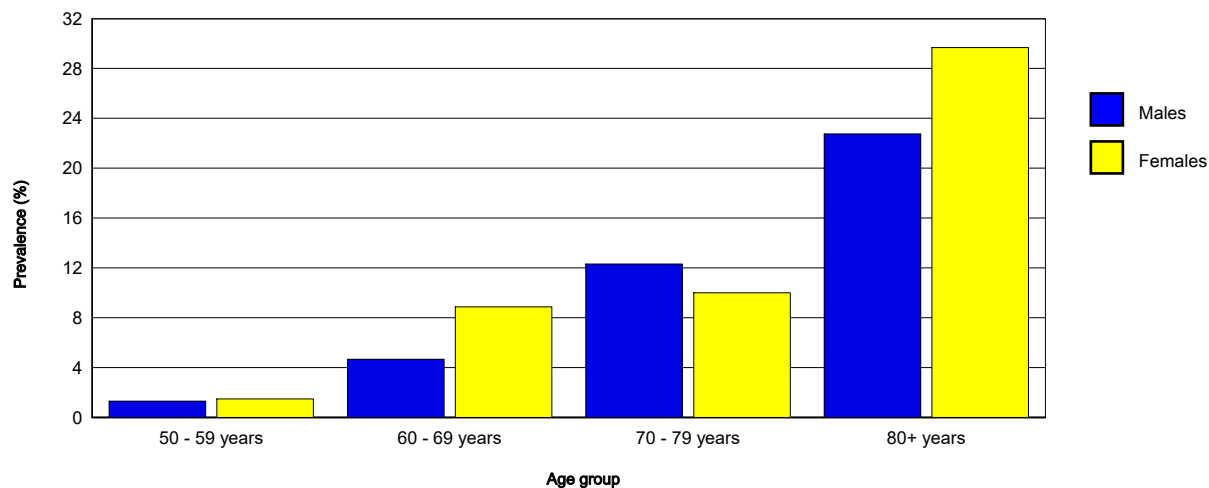
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	3	0.3%	9	0.6%	12	0.5%
60 - 69 years	13	1.9%	16	1.9%	29	1.9%
70 - 79 years	19	4.9%	18	3.5%	37	4.1%
80+ years	12	4.9%	33	9.1%	45	7.4%
Total	47	2.1%	76	2.4%	123	2.3%



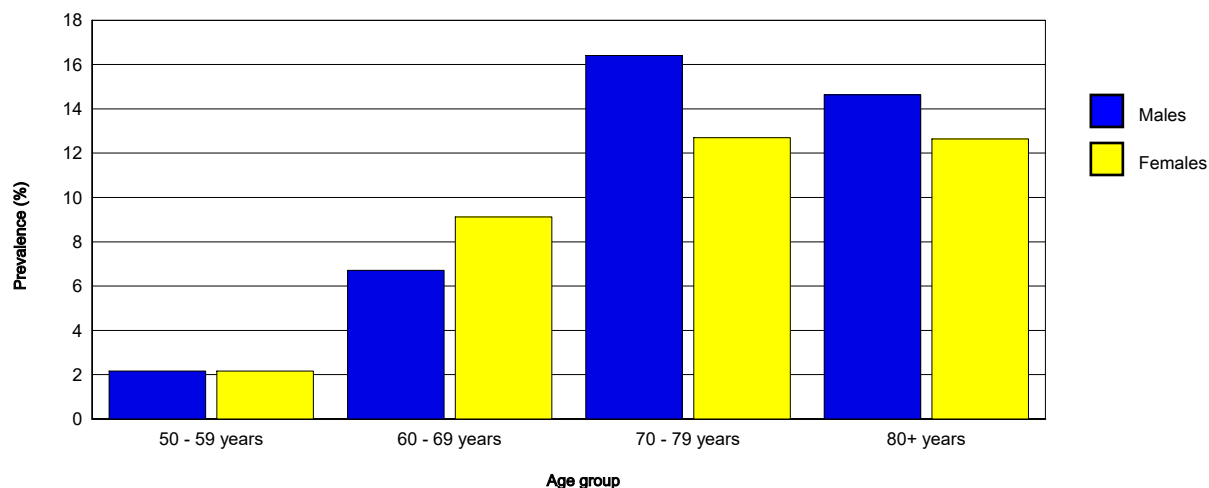
11. Prevalence of people with bilateral moderate visual impairment - VA <6/18-6/60 in better eye with available correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	6	1.3%	11	1.5%	17	1.4%
60 - 69 years	16	4.7%	37	8.9%	53	7.0%
70 - 79 years	24	12.3%	26	10.0%	50	11.0%
80+ years	28	22.8%	54	29.7%	82	26.9%
Total	74	6.6%	128	8.0%	202	7.4%



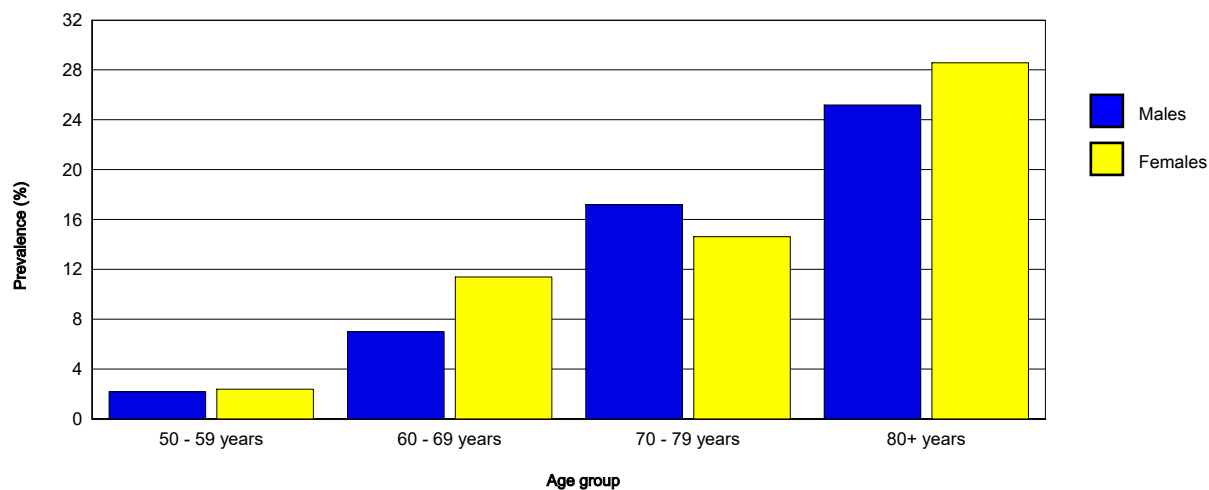
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	10	2.2%	16	2.2%	26	2.2%
60 - 69 years	23	6.7%	38	9.1%	61	8.0%
70 - 79 years	32	16.4%	33	12.7%	65	14.3%
80+ years	18	14.6%	23	12.6%	41	13.4%
Total	83	7.4%	110	6.9%	193	7.1%



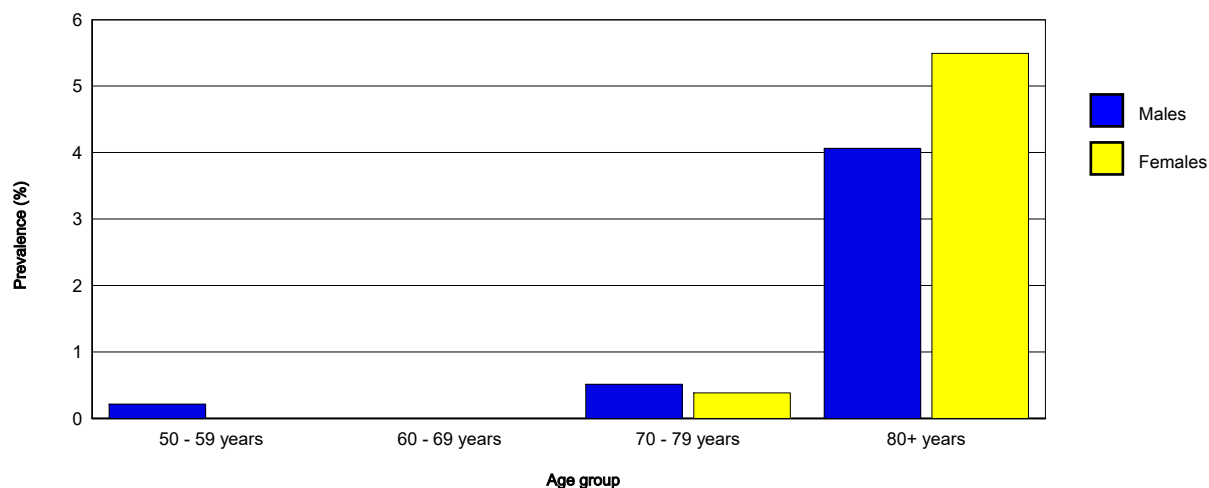
13. Prevalence of MVI eyes - VA<6/18-6/60 with available correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	20	2.2%	35	2.4%	55	2.3%
60 - 69 years	48	7.0%	95	11.4%	143	9.4%
70 - 79 years	67	17.2%	76	14.6%	143	15.7%
80+ years	62	25.2%	104	28.6%	166	27.2%
Total	197	8.8%	310	9.7%	507	9.3%



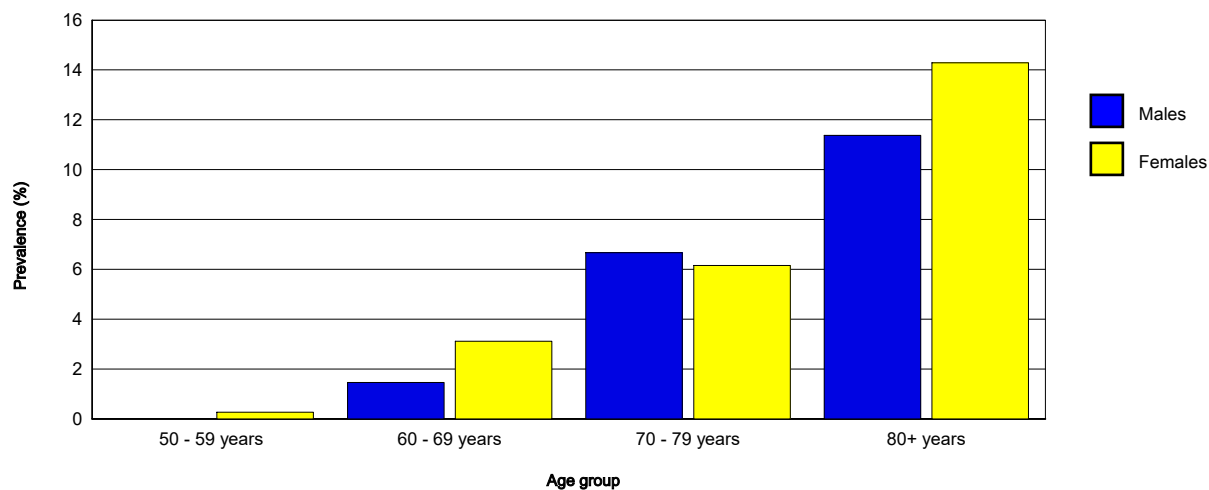
14. Prevalence of people bilateral blind due to cataract - VA<3/60 in better eye with best correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	1	0.2%	0	0.0%	1	0.1%
60 - 69 years	0	0.0%	0	0.0%	0	0.0%
70 - 79 years	1	0.5%	1	0.4%	2	0.4%
80+ years	5	4.1%	10	5.5%	15	4.9%
Total	7	0.6%	11	0.7%	18	0.7%



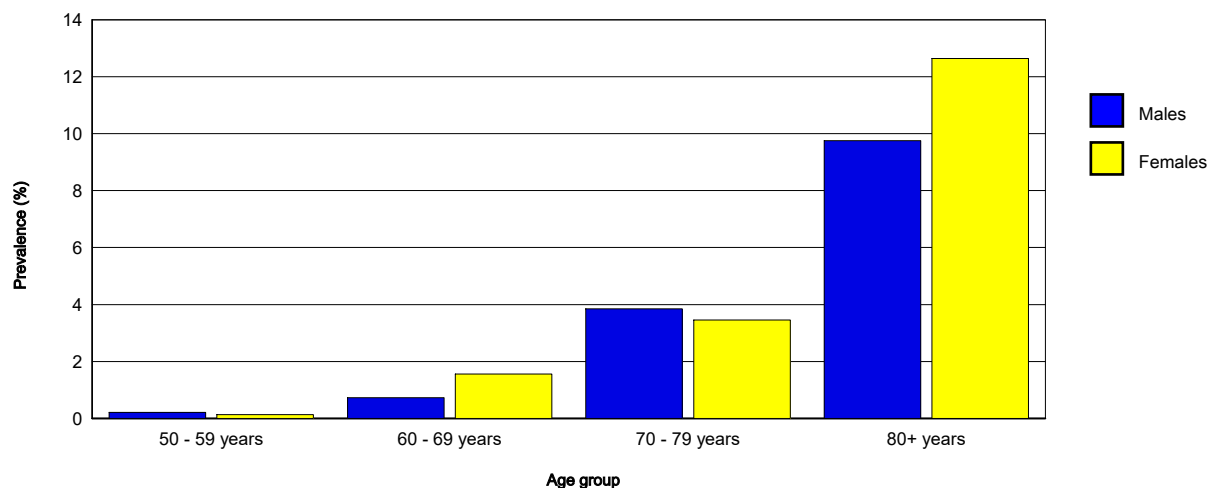
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	0	0.0%	2	0.3%	2	0.2%
60 - 69 years	5	1.5%	13	3.1%	18	2.4%
70 - 79 years	13	6.7%	16	6.2%	29	6.4%
80+ years	14	11.4%	26	14.3%	40	13.1%
Total	32	2.9%	57	3.6%	89	3.3%



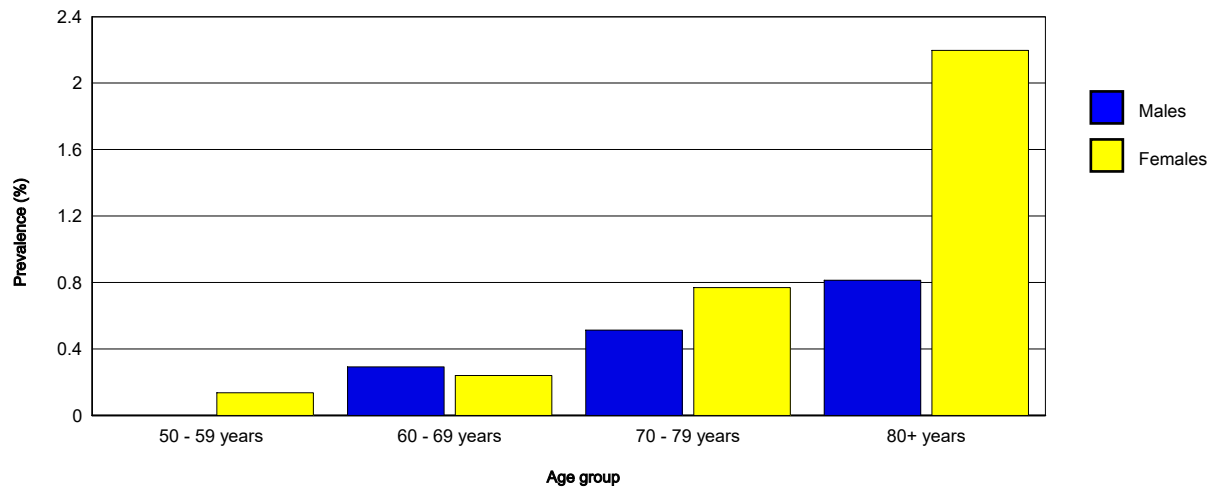
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	2	0.2%	2	0.1%	4	0.2%
60 - 69 years	5	0.7%	13	1.6%	18	1.2%
70 - 79 years	15	3.8%	18	3.5%	33	3.6%
80+ years	24	9.8%	46	12.6%	70	11.5%
Total	46	2.0%	79	2.5%	125	2.3%



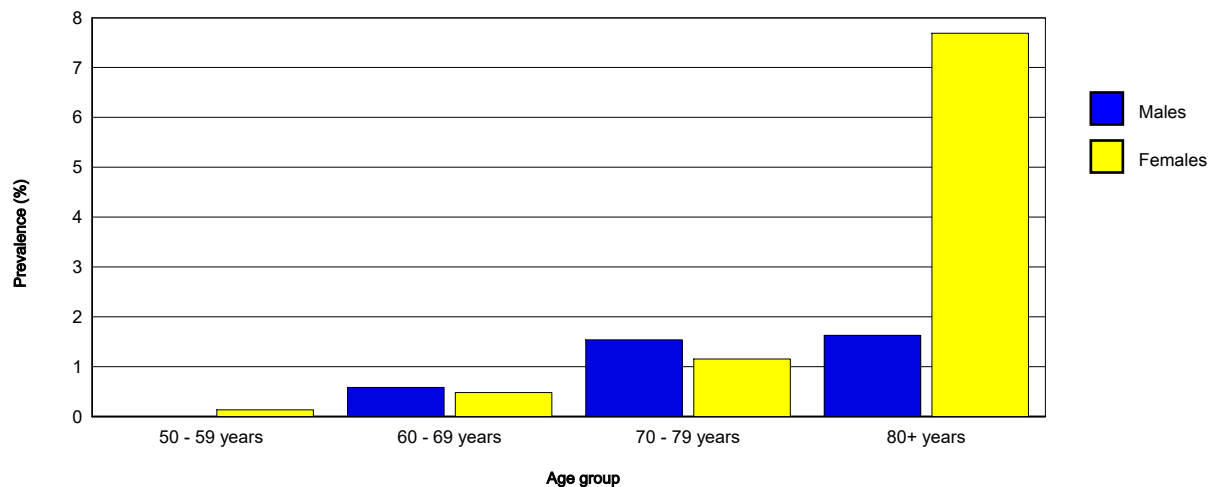
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	0	0.0%	1	0.1%	1	0.1%
60 - 69 years	1	0.3%	1	0.2%	2	0.3%
70 - 79 years	1	0.5%	2	0.8%	3	0.7%
80+ years	1	0.8%	4	2.2%	5	1.6%
Total	3	0.3%	8	0.5%	11	0.4%



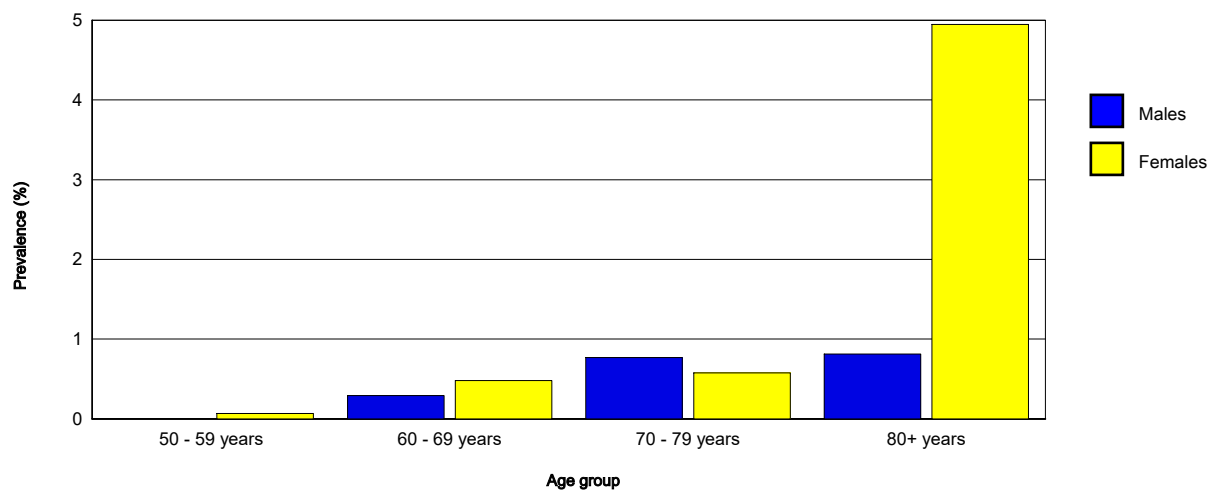
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA <6/60-3/60 with best correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	0	0.0%	1	0.1%	1	0.1%
60 - 69 years	2	0.6%	2	0.5%	4	0.5%
70 - 79 years	3	1.5%	3	1.2%	6	1.3%
80+ years	2	1.6%	14	7.7%	16	5.2%
Total	7	0.6%	20	1.3%	27	1.0%



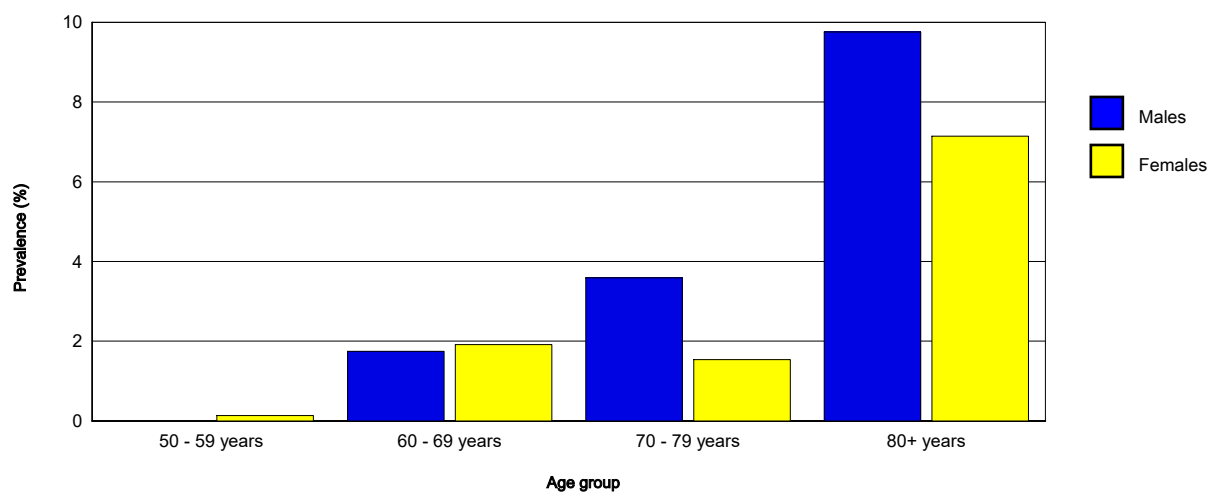
19. Prevalence of cataract SVI eyes - VA<6/60-3/60 with best correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	0	0.0%	1	0.1%	1	0.0%
60 - 69 years	2	0.3%	4	0.5%	6	0.4%
70 - 79 years	3	0.8%	3	0.6%	6	0.7%
80+ years	2	0.8%	18	4.9%	20	3.3%
Total	7	0.3%	26	0.8%	33	0.6%



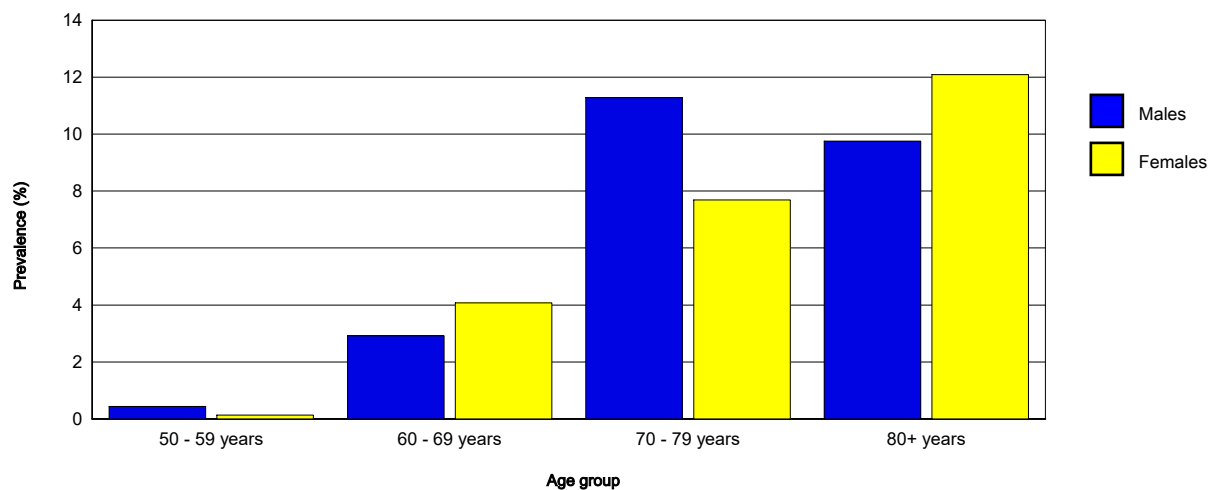
20. Prevalence of people with bilateral moderate visual impairment due to cataract - VA<6/18-6/60 - best eye, best correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	0	0.0%	1	0.1%	1	0.1%
60 - 69 years	6	1.7%	8	1.9%	14	1.8%
70 - 79 years	7	3.6%	4	1.5%	11	2.4%
80+ years	12	9.8%	13	7.1%	25	8.2%
Total	25	2.2%	26	1.6%	51	1.9%



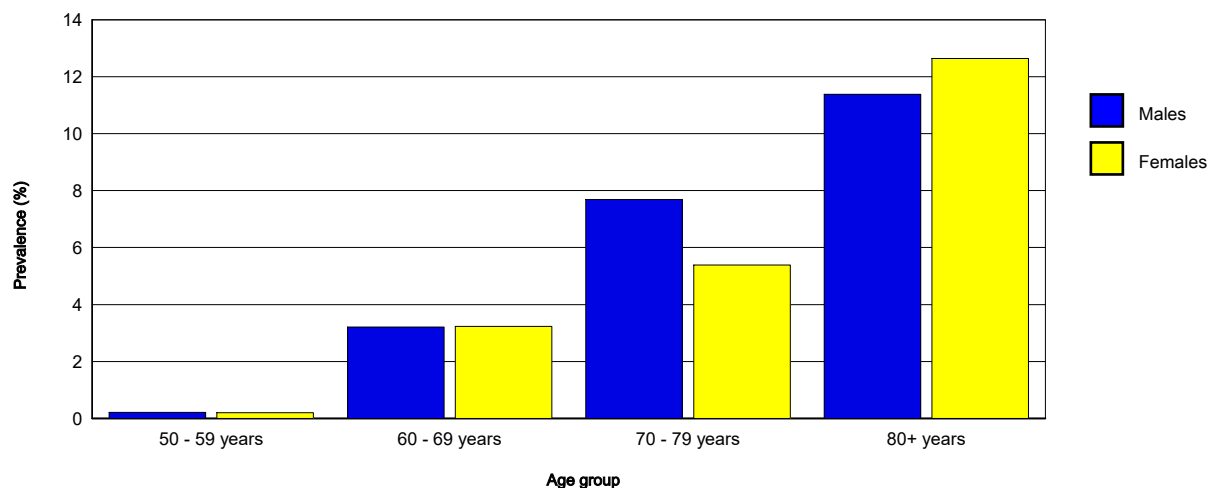
21. Prevalence of people with unilateral moderate visual impairment due to cataract - VA<6/18-6/60 best corrected

	n	Males %	n	Females %	n	Total %
50 - 59 years	2	0.4%	1	0.1%	3	0.3%
60 - 69 years	10	2.9%	17	4.1%	27	3.6%
70 - 79 years	22	11.3%	20	7.7%	42	9.2%
80+ years	12	9.8%	22	12.1%	34	11.1%
Total	46	4.1%	60	3.8%	106	3.9%



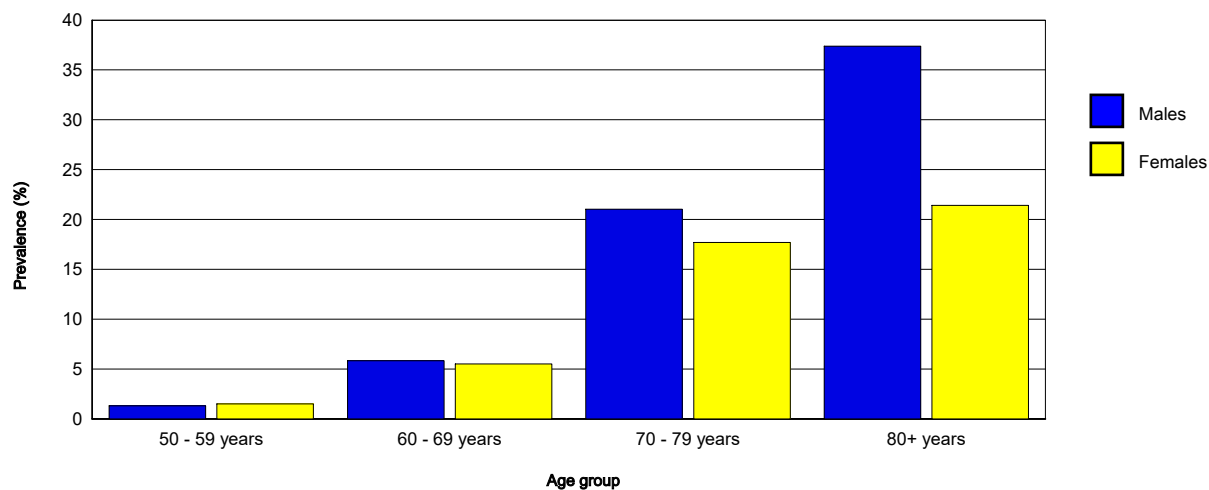
22. Prevalence of cataract MVI eyes - VA <6/18-6/60 with best correction

	n	Males %	n	Females %	n	Total %
50 - 59 years	2	0.2%	3	0.2%	5	0.2%
60 - 69 years	22	3.2%	27	3.2%	49	3.2%
70 - 79 years	30	7.7%	28	5.4%	58	6.4%
80+ years	28	11.4%	46	12.6%	74	12.1%
Total	82	3.7%	104	3.3%	186	3.4%



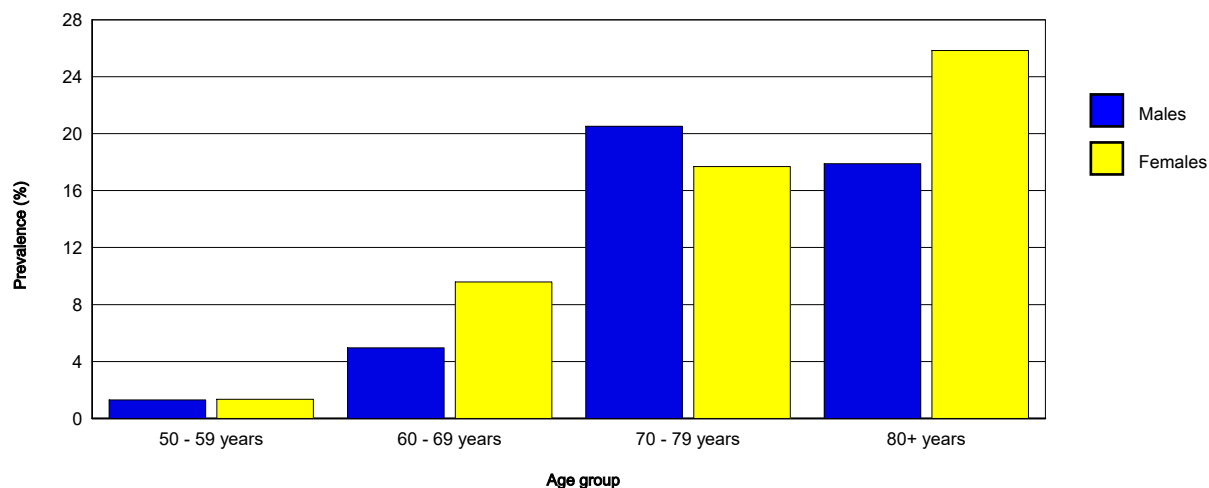
23. Prevalence of people with bilateral (pseudo)aphakia

	n	Males %	n	Females %	n	Total %
50 - 59 years	6	1.3%	11	1.5%	17	1.4%
60 - 69 years	20	5.8%	23	5.5%	43	5.7%
70 - 79 years	41	21.0%	46	17.7%	87	19.1%
80+ years	46	37.4%	39	21.4%	85	27.9%
Total	113	10.1%	119	7.5%	232	8.5%



24. Prevalence of people with unilateral (pseudo)aphakia

	n	Males %	n	Females %	n	Total %
50 - 59 years	6	1.3%	10	1.4%	16	1.3%
60 - 69 years	17	5.0%	40	9.6%	57	7.5%
70 - 79 years	40	20.5%	46	17.7%	86	18.9%
80+ years	22	17.9%	47	25.8%	69	22.6%
Total	85	7.6%	143	9.0%	228	8.4%



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

AGE AND SEX ADJUSTED PREVALENCE AND ESTIMATED NUMBERS

Date and time of report:

04-May-16

10:57:13AM

This report is for the survey area:

BILASPUR

Year and month when survey was conducted:

2016- 4 until 2016- 4

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.

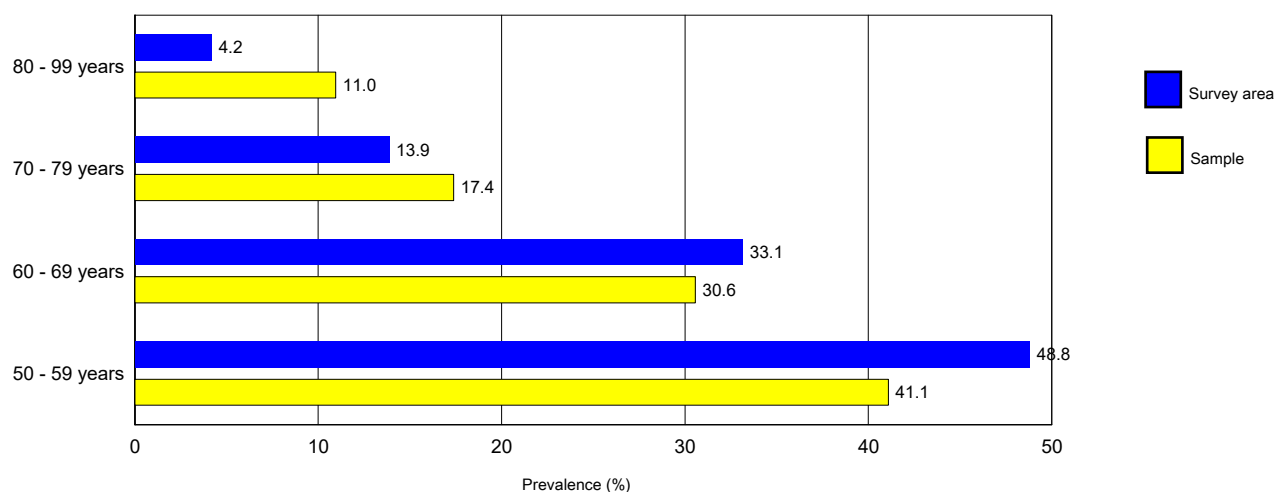
1. Age and sex distribution of people examined in the sample

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	461	41.1%	737	46.2%	1,198	44.1%
60 - 69 years	343	30.6%	417	26.1%	760	28.0%
70 - 79 years	195	17.4%	260	16.3%	455	16.7%
80 - 99 years	123	11.0%	182	11.4%	305	11.2%
Total	1,122	100.0%	1,596	100.0%	2,718	100.0%

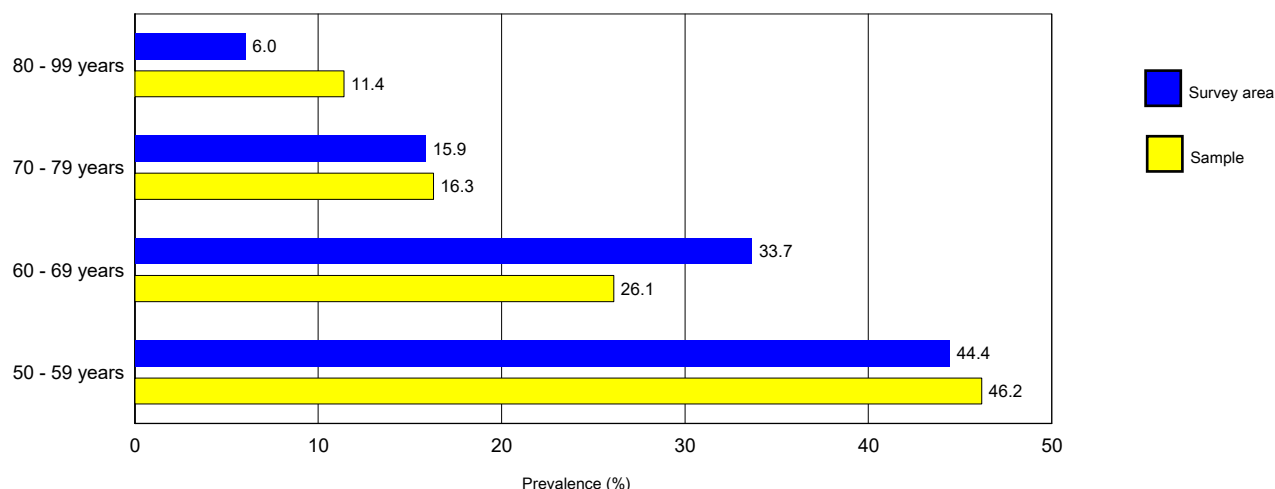
2. Total number of people aged 50+ in survey area

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	70,803	48.8%	71,342	44.4%	142,145	46.5%
60 - 69 years	48,105	33.1%	54,018	33.7%	102,123	33.4%
70 - 79 years	20,118	13.9%	25,473	15.9%	45,591	14.9%
80 - 99 years	6,092	4.2%	9,689	6.0%	15,781	5.2%
Total	145,118	100.0%	160,522	100.0%	305,640	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	1,167	0.8 (0.1 - 1.5)	1,691	1.1 (0.4 - 1.7)	2,858	0.9 (0.5 - 1.4)
All eyes	10,491	3.6 (2.6 - 4.6)	10,910	3.4 (2.6 - 4.2)	21,401	3.5 (2.9 - 4.1)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral cases	1,320	0.9 (0.2 - 1.6)	1,927	1.2 (0.5 - 1.9)	3,247	1.1 (0.6 - 1.6)
All eyes	11,395	3.9 (2.9 - 4.9)	12,534	3.9 (3.0 - 4.8)	23,929	3.9 (3.2 - 4.6)
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral cases	1,172	0.8 (0.2 - 1.4)	2,113	1.3 (0.7 - 1.9)	3,285	1.1 (0.6 - 1.5)
All eyes	4,838	1.7 (1.0 - 2.3)	6,465	2.0 (1.5 - 2.6)	11,303	1.8 (1.4 - 2.3)
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral cases	7,029	4.8 (3.2 - 6.5)	11,280	7.0 (5.5 - 8.5)	18,309	6.0 (4.9 - 7.1)
All eyes	19,787	6.8 (5.3 - 8.4)	28,677	8.9 (7.4 - 10.4)	48,464	7.9 (6.9 - 9.0)
Early visual impairment (EVI) - VA<6/12 - 6/18 in the better eye with available correction						
All bilateral cases	13,775	9.5 (7.2 - 11.8)	19,669	12.3 (10.1 - 14.4)	33,444	10.9 (9.0 - 12.8)
All eyes	31,713	10.9 (8.6 - 13.2)	49,176	15.3 (13.1 - 17.5)	80,889	13.2 (11.4 - 15.1)

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	1,320	0.9 (0.2 - 1.6)	1,927	1.2 (0.5 - 1.9)	3,247	1.1 (0.6 - 1.6)
All eyes	11,395	3.9 (2.9 - 4.9)	12,534	3.9 (3.0 - 4.8)	23,929	3.9 (3.2 - 4.6)
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	2,491	1.7 (0.8 - 2.6)	4,039	2.5 (1.7 - 3.4)	6,530	2.1 (1.5 - 2.8)
All eyes	16,233	5.6 (4.4 - 6.8)	18,999	5.9 (4.8 - 7.0)	35,232	5.8 (4.9 - 6.6)
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	9,519	6.6 (4.6 - 8.5)	15,319	9.5 (7.8 - 11.3)	24,838	8.1 (6.8 - 9.4)
All eyes	36,021	12.4 (10.3 - 14.5)	47,676	14.9 (12.8 - 16.9)	83,697	13.7 (12.1 - 15.2)
VA<6/12 in the better eye, with available correction (presenting VA)						
All bilateral cases	23,295	16.1 (13.2 - 18.9)	34,987	21.8 (18.9 - 24.7)	58,282	19.1 (16.6 - 21.5)
All eyes	67,732	23.3 (20.3 - 26.4)	96,852	30.2 (27.2 - 33.1)	164,584	26.9 (24.4 - 29.5)

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	505	0.3 (-0.2 - 0.8)	630	0.4 (0.0 - 0.8)	1,135	0.4 (0.1 - 0.7)
Unilateral cataract	2,735	1.9 (1.0 - 2.8)	4,830	3.0 (2.2 - 3.9)	7,565	2.5 (1.8 - 3.1)
Cataract eyes	3,745	1.3 (0.7 - 1.9)	6,091	1.9 (1.3 - 2.5)	9,836	1.6 (1.2 - 2.0)
Cataract and SVI - VA<6/60 - 3/60 in better eye with best correction or pinhole						
Bilateral cataract	293	0.2 (0.2 - 0.2)	636	0.4 (0.1 - 0.7)	929	0.3 (0.1 - 0.5)
Unilateral cataract	103	0.1 (-0.4 - 0.6)	596	0.4 (-0.2 - 0.9)	699	0.2 (-0.2 - 0.6)
Cataract eyes	689	0.2 (0.0 - 0.5)	1,867	0.6 (0.2 - 1.0)	2,556	0.4 (0.1 - 0.7)
Cataract and Moderate VI (MVI) - VA<6/18 - 6/60 in better eye with best correction or pinhole						
Bilateral cataract	2,157	1.5 (0.8 - 2.2)	2,217	1.4 (0.8 - 1.9)	4,374	1.4 (1.0 - 1.9)
Unilateral cataract	3,558	2.5 (1.2 - 3.7)	4,546	2.8 (1.9 - 3.8)	8,104	2.7 (1.8 - 3.5)
Cataract eyes	7,874	2.7 (1.8 - 3.6)	8,980	2.8 (2.0 - 3.5)	16,854	2.8 (2.2 - 3.3)
Cataract and Early VI (EVI) - VA<6/12 - 6/18 in better eye with best correction or pinhole						
Bilateral cataract	4,275	1.5 (0.6 - 2.3)	6,356	2.0 (1.0 - 3.0)	10,631	1.7 (1.1 - 2.4)
Unilateral cataract	2,450	0.8 (-0.4 - 2.1)	5,730	1.8 (0.4 - 3.2)	8,180	1.3 (0.4 - 2.2)
Cataract eyes	11,000	3.8 (2.7 - 4.9)	18,442	5.7 (4.4 - 7.1)	29,442	4.8 (4.0 - 5.7)

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

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Cataract and VA<3/60 with best correction or pinhole						
Bilateral cataract	505	0.3 (-0.2 - 0.8)	630	0.4 (0.0 - 0.8)	1,135	0.4 (0.1 - 0.7)
Unilateral cataract	2,735	1.9 (1.0 - 2.8)	4,830	3.0 (2.2 - 3.9)	7,565	2.5 (1.8 - 3.1)
Cataract eyes	3,745	1.3 (0.7 - 1.9)	6,091	1.9 (1.3 - 2.5)	9,836	1.6 (1.2 - 2.0)
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	797	0.5 (0.0 - 1.0)	1,266	0.8 (0.4 - 1.2)	2,063	0.7 (0.3 - 1.0)
Unilateral cataract	2,838	2.0 (0.8 - 3.1)	5,426	3.4 (2.3 - 4.4)	8,264	2.7 (1.9 - 3.5)
Cataract eyes	4,434	1.5 (0.8 - 2.2)	7,956	2.5 (1.8 - 3.1)	12,390	2.0 (1.5 - 2.5)
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	2,957	2.0 (1.2 - 2.8)	3,483	2.2 (1.4 - 3.0)	6,440	2.1 (1.5 - 2.7)
Unilateral cataract	6,398	4.4 (2.7 - 6.2)	9,972	6.2 (4.6 - 7.8)	16,370	5.4 (4.1 - 6.6)
Cataract eyes	12,308	4.2 (3.1 - 5.4)	16,938	5.3 (4.1 - 6.4)	29,246	4.8 (3.9 - 5.6)
Cataract and VA<6/12 with best correction or pinhole						
Bilateral cataract	7,231	5.0 (3.8 - 6.2)	9,840	6.1 (5.0 - 7.3)	17,071	5.6 (4.7 - 6.4)
Unilateral cataract	8,849	6.1 (3.9 - 8.3)	15,702	9.8 (7.3 - 12.3)	24,551	8.0 (6.3 - 9.8)
Cataract eyes	23,309	8.0 (6.3 - 9.8)	35,379	11.0 (9.3 - 12.7)	58,688	9.6 (8.4 - 10.9)

9. Adjusted results for aphakia and pseudophakia

	Males		Females		Total	
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Bilateral (pseudo)aphakia	10,235	7.1 (4.9 - 9.2)	10,627	6.6 (5.1 - 8.1)	20,862	6.8 (5.5 - 8.2)
Unilateral (pseudo)aphakia	8,523	5.9 (4.7 - 7.1)	13,159	8.2 (6.7 - 9.7)	21,682	7.1 (6.0 - 8.2)
Eyes (pseudo)aphakia	28,992	10.0 (7.7 - 12.2)	34,413	10.7 (9.1 - 12.3)	63,405	10.4 (8.9 - 11.9)

10. Adjusted results for cataract surgical coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	88.6	85.0	86.6
VA < 6/60	86.7	81.2	83.7
VA < 6/18	70.2	67.0	68.4
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	96.3	95.9	96.1
VA < 6/60	94.4	92.4	93.3
VA < 6/18	83.7	83.4	83.6

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

FINDINGS ON DIABETES AND DIABETIC RETINOPATHY

Date and time of report:

04-May-16

10:58:11AM

This report is for the survey area:

BILASPUR

Year and month when survey was conducted:

2016- 4 until 2016- 4

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	33	7.2% (4.1-10.2)	57	7.7% (5.9-9.6)	90	7.5% (5.9-9.2)
60 - 69	36	10.5% (7.2-13.7)	56	13.4% (9.7-17.2)	92	12.1% (9.5-14.7)
70 - 79	19	9.7% (4.9-14.6)	38	14.6% (10.6-18.6)	57	12.5% (9.7-15.4)
80+	6	4.9% (1.4-8.4)	10	5.5% (2.1-8.9)	16	5.2% (2.7-7.7)
All ages	94	8.4% (6.2-10.6)	161	10.1% (8.2-12.0)	255	9.4% (7.8-11.0)

2. Diabetics and random blood sugar level

		Males		Females		Total	
		n	%	n	%	n	%
All diabetics	Known diabetes	76	80.9%	127	78.9%	203	79.6%
	Newly diagnosed diabetes	18	19.1%	34	21.1%	52	20.4%
	Total	94	100.0%	161	100.0%	255	100.0%
Known diabetes	Bloodsugar <200 mg/dl	36	47.4%	55	43.3%	91	44.8%
	Bloodsugar >200 mg/dl	40	52.6%	72	56.7%	112	55.2%
	Total	76	100.0%	127	100.0%	203	100.0%

3. Treatment in people with known diabetes

	Males		Females		Total	
	n	%	n	%	n	%
No treatment	9	11.8%	11	8.7%	20	9.9%
Diet only	3	3.9%	6	4.7%	9	4.4%
Tablets	59	77.6%	106	83.5%	165	81.3%
Insulin	3	3.9%	3	2.4%	6	3.0%
Tablets + Insulin	0	0.0%	0	0.0%	0	0.0%
Other	2	2.6%	1	0.8%	3	1.5%
Total	76	100.0%	127	100.0%	203	100.0%

4. Last eye examination for DR among known diabetics

	Males		Females		Total	
	n	%	n	%	n	%
Never had eye examination for DR	66	86.8%	120	94.5%	186	91.6%
0-12 months ago	10	13.2%	4	3.1%	14	6.9%
13-24 months ago	0	0.0%	1	0.8%	1	0.5%
>24 months ago	0	0.0%	2	1.6%	2	1.0%
Total	76	100.0%	127	100.0%	203	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)	196	76.9% (71.9-81.8)	7.2% (5.9-8.5)
Background DR - mild (R1)	32	12.5% (9.1-16.0)	1.2% (0.8-1.6)
Background DR - observable (R2)	8	3.1% (0.8-5.5)	0.3% (0.1-0.5)
Background DR - referable (R3)	7	2.7% (0.8-4.7)	0.3% (0.1-0.4)
Proliferative DR (R4)	3	1.2% (0.0-2.5)	0.1% (0.0-0.2)
Ungradable DR (R6)	4	1.6% (0.1-3.1)	0.1% (0.0-0.3)
Any retinopathy	54	21.2% (16.7-25.6)	2.0% (1.5-2.5)
Maculopathy grade			
No maculopathy (M0)	210	82.4% (76.8-88.0)	7.7% (6.2-9.3)
Maculopathy - observable (M1)	17	6.7% (3.3-10.1)	0.6% (0.3-0.9)
Maculopathy - referable (M2)	7	2.7% (0.8-4.7)	0.3% (0.1-0.4)
Any maculopathy	40	15.7% (10.2-21.2)	1.5% (1.0-2.0)
Any retinopathy and/or maculopathy	63	24.7% (19.8-29.7)	2.3% (1.8-2.9)
Sight threatening DR (R4 and/or M2)	9	3.5% (1.4-5.6)	0.3% (0.1-0.5)
Any laser scars	20	7.8% (4.2-11.5)	0.7% (0.4-1.1)

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	5	15.2% (3.6-26.8)	12	21.1% (12.0-30.1)	17	18.9% (11.6-26.2)
60 - 69	10	27.8% (12.7-42.8)	12	21.4% (10.8-32.0)	22	23.9% (15.8-32.0)
70 - 79	1	5.3% (0.0-15.0)	11	28.9% (18.6-39.3)	12	21.1% (11.9-30.2)
80+	1	16.7% (0.0-46.8)	0	0.0% (0.0-0.0)	1	6.3% (0.0-18.3)
All ages	17	18.1% (10.5-25.7)	35	21.7% (16.4-27.0)	52	20.4% (16.4-24.4)

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	192	75.3% (69.1-81.5)	1,916	77.8% (75.5-80.1)
Early VI	31	12.2% (8.3-16.0)	292	11.9% (10.0-13.7)
Moderate VI	23	9.0% (5.1-12.9)	179	7.3% (6.2-8.3)
Severe VI	4	1.6% (0.1-3.0)	35	1.4% (1.0-1.8)
Blindness	1	0.4% (0.0-1.2)	28	1.1% (0.7-1.6)

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

	Blindness				Severe VI				Moderate VI				Early VI			
	DM		No		DM		No		DM		No		DM		No	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Refr. error	0	0%	1	2%	0	0%	2	5%	3	13%	24	13%	24	77%	224	76%
Cataract	4	80%	25	60%	1	25%	21	60%	13	56%	124	69%	5	16%	53	18%
DR	0	0%	0	0%	1	25%	0	0%	2	8%	0	0%	0	0%	0	0%
Other PSD	1	20%	5	12%	0	0%	7	20%	2	8%	12	6%	1	3%	4	1%
Other	0	0%	10	24%	2	50%	5	14%	3	13%	19	10%	1	3%	11	3%
Total	5	100%	41	100%	4	100%	35	100%	23	100%	179	100%	31	100%	292	100%